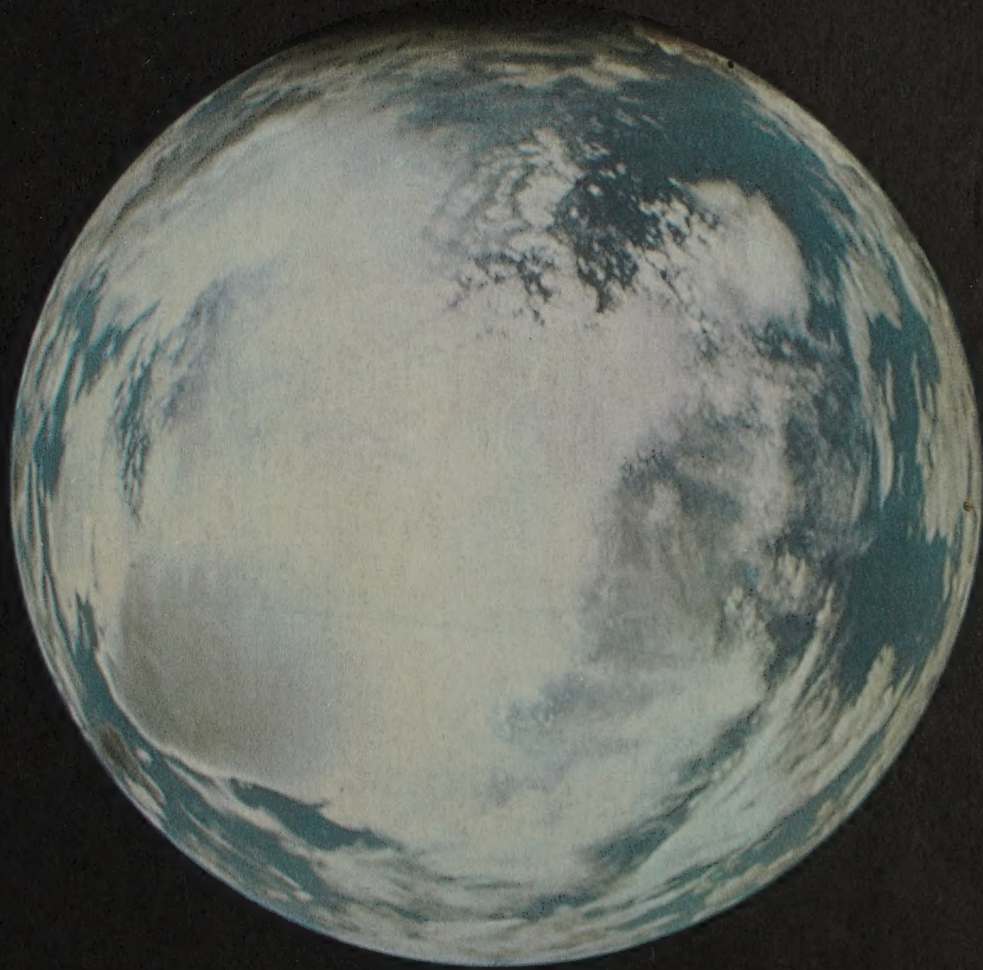


Whole Earth Catalog

access to tools



THE UNIVERSE
from planet Earth
on a sunny day

Fall 1970

\$3

FUNCTION

The *WHOLE EARTH CATALOG* functions as an evaluation and access device. With it, the user should know better what is worth getting and where and how to do the getting.

An item is listed in the *CATALOG* if it is deemed:

- 1) Useful as a tool,
- 2) Relevant to independent education,
- 3) High quality or low cost,
- 4) Easily available by mail.

CATALOG listings are continually revised according to the experience and suggestions of *CATALOG* users and staff.

PURPOSE

We are as gods and might as well get good at it. So far remotely done power and glory—as via government, big business, formal education, church—has succeeded to point where gross defects obscure actual gains. In response to this dilemma and to these gains a realm of intimate, personal power is developing—power of the individual to conduct his own education, find his own inspiration, shape his own environment, and share his adventure with whoever is interested. Tools that aid this process are sought and promoted by the *WHOLE EARTH CATALOG*.

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THE COVER

The snapshot of the universe on the front cover was made one August afternoon this summer a few miles east of Albuquerque with a 180° fisheye lens. The composite photo on the back cover, done by Prof. Bart Bok of Steward Observatory at Tuscon, was sent to us by Carl Sagan in response to our plaint for a photograph of the Whole galaxy last spring. The quote is from Sagan's introduction to his Planetary Exploration, 1970, 76pp. \$2.00 from University of Oregon Books, 107 Friendly Hall, University of Oregon, Eugene, Oregon 97403. Cover designed by Stewart Brand.

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we know a few answers.*

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if you have a product,
let us see it,
if we like it, you don't owe us anything*

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*We are part of Portola Institute, Inc.,
tax-exempt
non-profit.*

THE FAMILY

*this picture was taken in august.
missing were david and diane, bud and barbara,
doug and terry, hal and ellen, john and carolyn,
david, and manuel. sketch them in.*

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Menlo Park, California 94025
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about any kind of money works,
checks, moneyorders, real money,
or,
if you have something to swap,
write to us,
maybe we can work something out.*

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*there are three issues left
before we fade out,
two one dollar catalogs,
and the superbig final issue.
you can start a subscription
anywhere from spring 1969
to the present.
there is a subscription blank
in the back of this catalog.*

THE STAR

- ★
- ★
- ★
- ★
- ★
- ★
- ★
- ★

*the star beside review
means the item is new*

SUGGESTING & REVIEWING

*we spent about six months
getting this catalog together.
a lot of it came from the people,
out there,
some of it came from other catalogs,
some of it came out of our work,
our heads,
it was all organized using
cardboard boxes
and the fibber mcgee retrieval system.*

*we pay ten bucks for tipoffs,
if they are used in the big catalog.
so, if you see your name as
a suggester or reviewer,
and we haven't used the item before,
and we haven't paid you yet,
get in touch.*

*if you see something you turned us onto,
and we forgot you,
get in touch.*

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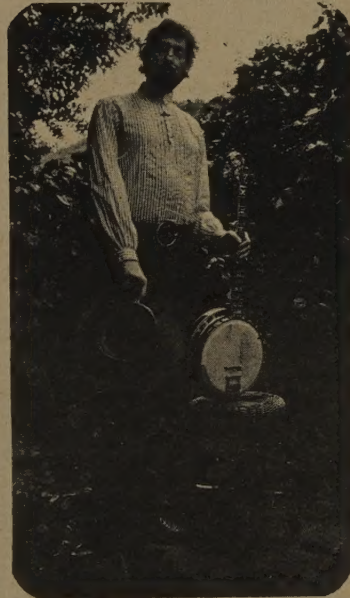
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Whole Systems

* Solar Journal

its sure hard to put a handle on this book,
a strange overview, maybe,
or fluid bingo.
richard grossinger brings a gnat's ass
and a cannonball
together,
makes them fit,
shows how they are connected,
then takes a long skinny oecological finger
and gently tweaks the reader's nose . . .
learn from him.

-jd



Solar Journal: Oecological Sections

Richard Grossinger
1970; 130pp.

\$4.50 postpaid

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Black Sparrow Press
Box 25603
Los Angeles, California 90025

or WHOLE EARTH CATALOG



During the milk strike the Indiana farmers dump tons of fresh white milk into the earth, surprised and sucking it up, as an ancient ocean, as the sun itself. One farmer in Indiana fills a swimming pool with milk; his two daughters, bikini'd, swim in it, splash for T.V. cameras. There is no secret family here to maintain the farm. The girls will turn sour in unexplored chemical secrets even as the milk clabbers. They know nothing of survival, but they are pumping the market, as the automobile market is pumped by girls with very red lips sucking on men's scrotums while they ride in high-priced cars. They are pumping the market but destroying food. The rain cells are replaced with money cells while only the amazed cat licks this holy water from the earth.

beware of whole systemitis.
its the loneliness awareness.
imagine you are a near sighted, bucktoothed, kid, doing
sunflower seeds,
and somebody comes along and puts eyeglasses on you,
holds up a mirror,
then takes you out on a hilltop at night,
points up at the little winks out there,
and tells you they aren't really little winks at all,
but great big flashes,
a long way away,
then asks you if you want some more sunflower seeds.

you want to throw away the eyeglasses, but it is too late,
you are stuck,
you've seen it,
you are little,
alone,
puny,
except
except for a few soft flannel thoughts,
and a belief that there are others like you,
brothers like you,
and that a sunflower seed
is a whole system too.



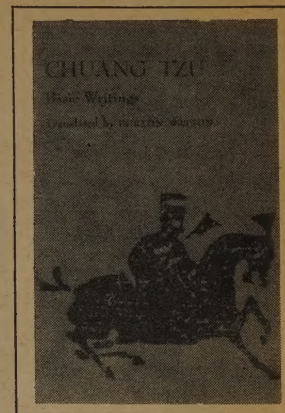
So in his article on sanctity and adaption, Rappaport cites two essential tautologies: that every living being is connected to every other living being, and that the environment is so complex that we cannot predict the total consequences of any action. So the supernatural world, in which all beings, visible and invisible, are connected by the great spiritual thread, in which the consequences are never seen yet always critical, is not just similar but identical to the natural world. It is science which operates with an imaginary environment, an environment it imagines it can control, in which it believes its own predictions, setting limits on just how far it will trace a poison or follow a river. Who cares if insecticide in Iowa pollutes the Great Lakes, who cares if the poisonous wastes from the potato factory in Maine pour into New Brunswick, as long as the crud passes political boundaries? Who cares if the microorganisms are poisoned, the algae and snails choked, these are not men's delicacies? Who cares about the supernatural, the world we cannot see? Who cares what happens to the skeletons of the fish after the fish are eaten, when every house has a garbage disposal; except during a garbage strike in New York the people forget that there is waste and the waste goes somewhere, motorboats killing off everything in a lake during successive Memorial Days and July 4's and Labor Days? And every living organism shares in the consequences, and the consequences are collective, only civil wars says the astronaut looking down at Earth, only civil wars even as the hunter downs the bear, the fish are caught in the Bella Coola trap. And everyone is simultaneously the benefactor and the victim; we are all victimized by what we are made out of, by, in fact, that we are made out of anything. The consequences never cease but pass and rebound, and this is the story of light in the universe, a sun whose powers flood on beyond Earth, beyond planets, an Earth which receives the decay of other stars.

Who can speak of the difference between healing chemically and soothing psychologically when, drop by drop, the body is one continuous chemical flask? Whatever we will become, including new states of mind, is carried in chemical code; the lightning of our thoughts passes over chemical lakes, excitation over a dormant solution in the Rocky Mountains, charged like the summer air: the planet is a single bath of linked chemicals, genes, joined by inlets and oceans, rivers, winds, and clouds; poison pass into solution, out of solution; crystals grow in DNA, the sacs of the sleeping water-snake. The doctor gives birth to his own specialized instruments, subglanular rubber pipes, suboceanic snakes; heals himself.

* Chuang Tzu: Basic Writings

a
great
long
string
of
solid
crystal
fortune cookies

-jd



Chuang Tzu: Basic Writings

Translated by Burton Watson
1964; 66; 148pp.

\$1.95 postpaid

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New York, New York 10027

or WHOLE EARTH CATALOG

Your life has a limit but knowledge has none. If you use what is limited to pursue what has no limit, you will be in danger. If you understand this and still strive for knowledge, you will be in danger for certain! If you do good, stay away from fame. If you do evil, stay away from punishments. Follow the middle; go by what is constant, and you can stay in one piece, keep yourself alive, look after your parents, and live out your years.

Cook Ting was cutting up an ox for Lord Wen-hui. At every touch of his hand, every heave of his shoulder, every move of his feet, every thrust of his knee—zip! zoom! He slithered the knife along with a zing, and all was in perfect rhythm, as though he were performing the dance of the Mulberry Grove or keeping time to the Ching-shou music.

"Ah, this is marvelous!" said Lord Wen-hui. "Imagine skill reaching such heights!"

Cook Ting laid down his knife and replied, "What I care about is the Way, which goes beyond skill. When I first began cutting up oxen, all I could see was the ox itself. After three years I no longer saw the whole ox. And now—now I go at it by spirit and don't look with my eyes. Perception and understanding have come to a stop and spirit moves where it wants. I go along with the natural makeup, strike in the big hollows, guide the knife through the big openings, and follow things as they are. So I never touch the smallest ligament or tendon, much less a main joint.

"A good cook changes his knife once a year—because he cuts. A mediocre cook changes his knife once a month—because he hacks. I've had this knife of mine for nineteen years and I've cut thousands of oxen with it, and yet the blade is as good as though it had just come from the grindstone. There are spaces between the joints, and the blade of the knife has really no thickness. If you insert what has no thickness into such spaces, then there's plenty of room—more than enough for the blade to play about in. That's why after nineteen years the blade of my knife is still as good as when it first came from the grindstone.

"However, whenever I come to a complicated place, I size up the difficulties, tell myself to watch out and be careful, keep my eyes on what I'm doing, work very slowly, and move the knife with the greatest subtlety, until—flop! the whole thing comes apart like a clod of earth crumbling to the ground. I stand there holding the knife and look all around me, completely satisfied and reluctant to move on, and then I wipe off the knife and put it away."

Chuang Tzu and Hui Tzu were strolling along the dam of the Hao River when Chuang Tzu said, "See how the minnows come out and dart around where they please! That's what fish really enjoy!"

Hui Tzu said, "You're not a fish—how do you know what fish enjoy?"

Chuang Tzu said, "You're not I, so how do you know I don't know what fish enjoy?"

Hui Tzu said, "I'm not you, so I certainly don't know what you know. On the other hand, you're certainly not a fish—so that still proves you don't know what fish enjoy!"

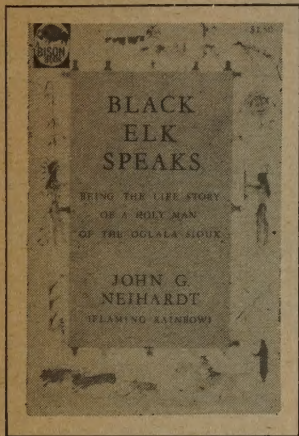
Chuang Tzu said, "Let's go back to your original question, please. You asked me how I know what fish enjoy—so you already knew I knew it when you asked the question. I know it by standing here beside the Hao."

★ **Black Elk Speaks**

*black elk was a holy man
an oglala sioux
and a good storyteller.
john neihardt,
the poet-laureate of nebraska,
and his daughter, hilda,
recorded black elk's raps in 1931.
its all here,
buffalo, custer, the ghost dance,
everything that hollywood fucked up,
plus the story of a whole old man,
and his visions.*

—jd

[Suggested by everyone including Michael Howaen]



Black Elk Speaks
John G. Neihardt
1932, 69; 280pp.

\$1.50 postpaid

from
Bison Books
University of Nebraska Press
Lincoln, Nebraska 68508

or WHOLE EARTH CATALOG

Crazy Horse's father was my father's cousin, and there were no chiefs in our family before Crazy Horse; but there were holy men; and he became a chief because of the power he got in a vision when he was a boy. When I was a man, my father told me something about that vision. Of course he did not know all of it; but he said that Crazy Horse dreamed and went into the world where there is nothing but the spirits of all things. That is the real world that is behind this one, and everything we see here is something like a shadow from that world. He was on his horse in that world, and the horse and himself on it and the trees and the grass and the stones and everything were made of spirit, and nothing was hard, and everything seemed to float. His horse was standing there, and yet it danced around like a horse made only of shadow, and that is how he got his name, which does not mean that his horse was crazy or wild, but that in his vision it danced around in that queer way.

It was this vision that gave him his great power, for when he went in to a fight, he had only to think of that world to be in it again, so that that he could go through anything and not be hurt. Until he was murdered by the Wasichus at the Soldiers' Town on White River he was wounded only twice, once by accident and both times by some one of his own people when he was not expecting trouble and was not thinking; never by an enemy. He was fifteen years old when he was wounded by accident; and the other time was when he was a young man and another man was jealous of him because the man's wife liked Crazy Horse.

They used to say too that he carried a sacred stone with him, like one he had seen in some vision, and that when he was in danger, the stone always got very heavy and protected him somehow. That, they used to say, was the reason no horse he ever rode lasted very long. I do not know about this; maybe people only thought it; but it is a fact that he never kept one horse long. They wore out. I think it was only the power of his great vision that made him great.

I think I have told you, but if I have not, you must have understood, that a man who has a vision is not able to use the power of it until after he has performed the vision on earth for the people to see. You remember that my great vision came to me when I was only nine years old, and you have seen that I was not much good for anything until after I had performed the horse dance near the mouth of the Tongue River during my eighteenth summer. And if the great fear had not come upon me, as it did, and forced me to do my duty, I might have been less good to the people than some man who had never dreamed at all, even with the memory of so great a vision in me. But the fear came, and if I had not obeyed it, I am sure it would have killed me in a little while.

And so it was all over.

I did not know then how much was ended. When I look back now from this high hill of my old age, I can still see the butchered women and children lying heaped and scattered all along the crooked gulch as plain as when I saw them with eyes still young. And I can see that something else died there in the bloody mud, and was buried in the blizzard. A people's dream died there. It was a beautiful dream.

And I, to whom so great a vision was given in my youth,—you see me now a pitiful old man who has done nothing, for the nation's hoop is broken and scattered. There is no center any longer, and the sacred tree is dead.

★ **Machina Ex Deo**

Here in one sharp little book are noted many of the large-scale turns of history and culture that we are visibly and invisibly making in one evolutionary blink of time. Unlike most overviews, White does not concern himself with so much pace of change as he does with origins and directions. His 1967 essay "The Historical Roots of Our Ecologic Crisis" (chapter 5 in this book) is already a much-reprinted classic. I suspect that Chapter 11, "The Necessity of Witches" will become one.

—SB



Machina ex Deo
Lynn White, jr.
1968; 186pp.

\$5.95 postpaid

from:
The MIT Press
50 Ames Street
Cambridge, Massachusetts 02139

or WHOLE EARTH CATALOG

From the kaleidoscopic and iridescent record of mankind, we can learn chiefly this: the possible range of human thought, emotion, organization, and action is almost infinite. In facing today's problems, we must therefore liberate ourselves from presuppositions as to what may or may not be possible. Knowledge of history frees us to be contemporary.

Prophecy is rash, but it may well be that the publication of D.T. Suzuki's first *Essays in Zen Buddhism* in 1927 will seem in future generations as great an intellectual event as William of Moerbeke's Latin translations of Aristotle in the thirteenth century or Marsiglio Ficino's of Plato in the fifteenth. But in Suzuki's case, the shell of the Occident has been broken through. More than we dream, we are now governed by the new canon of the globe.

Francis tried to depose man from his monarchy over creation and set up a democracy of all God's creatures. With him the ant is no longer simply a homily for the lazy, flames a sign of the thrust of the soul toward union with God; now they are Brother Ant and Sister Fire, praising the Creator in their own ways as Brother Man does in his. . . I propose Francis as a patron saint for ecologists.

It is said that after the ceremonies dedicating the great telescope on Mount Palomar, someone remarked to an astronomer, "Modern astronomy certainly makes man look insignificant, doesn't it?" To which the astronomer replied, "But man is the astronomer!"

There was a period in our own society when we needed witches and had them in enormous numbers. It began about the year 1300, ended somewhat after 1650, and is usually called the Renaissance. This was a time of torrential flux, of fearful doubt, marking the transition from the relative certainties of the Middle Ages to the new certainties which dominated the eighteenth and nineteenth centuries.

★ **The Technological Society**

a film hero of mine

once said something

like the following:

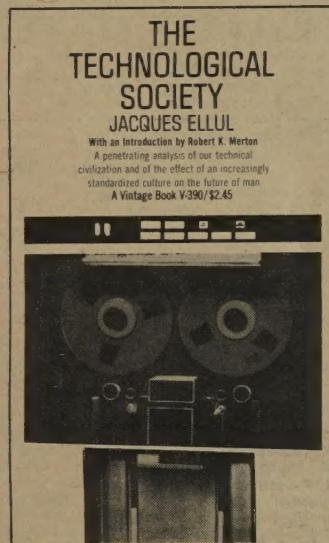
"there's a vast conspiracy afoot, through which the machines are taking over the world. its a war between men and machines and the machines are winning."

that's not an uncommon paranoia in a world where railroad firemen are being replaced by deadman switches on the engines, where the holy garbage is gobbled by whirring blades and artificial maelstroms, and where every masturbation is becoming mechanized. jacques ellul is pretty upset with the technological society, but looks past the machine to the formulas and formulators who midwife the machinery. he comes down pretty hard on political technocrats, and ends up making the word "technique" seem vaguely evil.

good late at night reading after you've slammed your fingers in the refrigerator door.

—jd

[Suggested by Lee Swenson]



THE TECHNOLOGICAL SOCIETY
JACQUES ELLUL

With an Introduction by Robert K. Merton
A penetrating analysis of our technical civilization and of the effect of an increasingly standardized culture on the future of man
A Vintage Book V-390/\$2.45

The Technological Society
Jacques Ellul
1964; 449pp.

\$2.45 postpaid

from
Random House Inc.
Random House Building
201 East 50th Street
New York, New York 10022

or WHOLE EARTH CATALOG

In view of the very different forms of technique, there is no question of a technical religion. But there is associated with it the feeling of the sacred, which expresses itself in different ways. The way differs from man to man, but for all men the feeling of the sacred is expressed in this marvelous instrument of the power instinct which is always joined to mystery and magic. The worker brags about his job because it offers him joyous confirmation of his superiority. The young snob speeds along at 100 m.p.h. in his Porsche. The technician contemplates with satisfaction the gradients of his charts, no matter what their reference is. For these men, technique is in every way sacred: it is the common expression of human power without which they would find themselves poor, alone, naked, and stripped of all pretensions. They would no longer be the heroes, geniuses, or archangels which a motor permits them to be at little expense.

The nation becomes the object of the technical state in that it furnishes all the different kinds of material substratum: men, money, economy, and so on. The state becomes a machine designed to exploit the means of the nation. The relation between state and nation is henceforth completely different from what it had been before. The nation is no longer primarily a human, geographic, and historical entity. It is an economic power whose resources must be put to work, and to which a "yield" must be returned. In connection with this yield, the older technicians used the term *maximum* but the newer ones use the term *optimum*. Maximum yield is yield that exhausts and debases the resources of the state in a short interval of time; optimum yield is yield that attempts to safeguard substance and vitality, the typical example being the TVA. However this may be, we must regard the nation as an entity whose total resources are to be brought into action precisely because all the different techniques, mutually conditioning one another, have come into play. Once the technician has commenced his operations, he cannot recognize any limits. He cannot esteem or respect anything in the nation except the "nature of things." This promotes the greater coherence of the state-nation which is so characteristic of our times.

When the technical problem is well in hand, the professional humanists look at the situation and dub it "humanist". This procedure suits the literati, moralists, and philosophers who are concerned about the human situation. What is more natural than for philosophers to say: "See how we are concerned with Man?" and for their literary admirers to echo: "At last, a humanism which is not confined to playing with ideas but which penetrates the facts!" Unfortunately, it is a historical fact that this shouting of humanism always comes *after* the technicians have intervened; for a true humanism, it ought to have occurred *before*. This is nothing more than the traditional psychological maneuver called rationalizing.

Our personal adaptability is limited. There are circumstances in which men as we know them cannot live at all. They cannot live, for example, in concentration camps, even when these exist without supplementary tortures. There are conditions in which they can indeed continue to exist, but only with the loss of everything which makes them peculiarly human. In this connection we have only to think of certain tribes terrifyingly close to the animal level (and, in some aspects of life, even below it). We need only think of the Nazi torture apparatus, or of the degradation experience by the ordinary man in the ranks of the army in wartime. In view of these examples, we are entitled to ask what adaptation will really be like in the man-machine complex. The psychotechnicians have recognized that adaptation is not possible for everyone. In a completely technicized world, there will be whole categories of men who will have no place at all, because universal adaptation will be required. Those who are adaptable will be so rigorously adapted that no play in the complex will be possible. The complete joining of man and machine will have the advantage, however, of making the adaptation painless. And it will assure the technical efficiency of the individuals who survive it.

The Order of the Universe Magazine

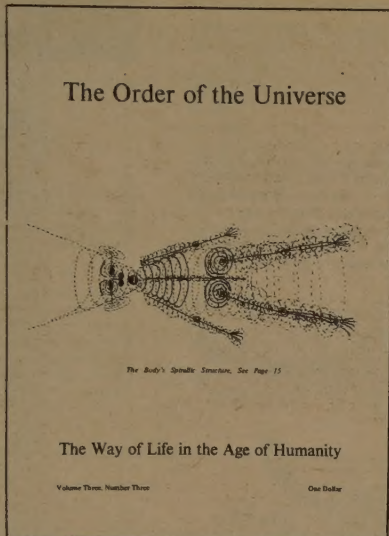
ever wondered whether a baby ruth had enough yin to balance off the ya yang in a coke?
get into the Way of Eating.
The Order of the Universe magazine provides a nice systems approach to the universe through your mouth, through the regulation of bodily input a belief in change change, and the body's spiralic structure, based on the teachings of george oshawa and lectures of michio kushi, the magazine gives about the best brownrice philosophy going.

-jd

The Order of the Universe Magazine

\$10.00 for twelve issue subscription
\$1.00 single copies

from:
Order of the Universe Publications
Box 203
Prudential Center Station
Boston, Massachusetts 02199



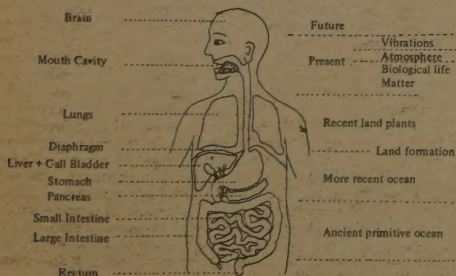
As sugars pass through our body they meet different forms of digestive juices which alternate between yin and yang. Eventually all sugars are broken down into monosaccharides. It is a mistake, however, to conclude that we should eat monosaccharides. Under normal circumstances we should eat polysaccharides and gradually break them down with our own digestive processes.

Mono- and disaccharides are often selected for food because they smell and taste very sweet. Their strong odor shows that they are more yin, separated, or dissociated. When we pass a bakery we notice the strong smell of sugar, but a grain store has very little odor because these foods are not expanding and throwing off particles. The extreme yin of cane sugar causes immediate reactions throughout our body. The parasympathetic branch of our autonomic nervous system is strongly affected, and a "sugar reaction" takes place in our stomach, causing it to stop its movements and become paralyzed. About eight-tenths of a gram is all that is necessary to produce this effect. Any strong yin food will do this, because the stomach is also yin. To neutralize these sugars, more gastric acid is produced by the stomach; then movement begins again. We do not often notice these automatic actions, except that sweets make us lose our appetite; however, if we continue to take sweets everyday, our system is overworked. If this is continued for years, the walls of the stomach become ulcerated.

Sugar is broken down and absorbed in our intestines. Polysaccharides are gradually reduced, while disaccharides are broken down more quickly. There are millions of bacteria in our intestines which aid in this process. Our intestinal villi resemble the roots of a tree which are surrounded by bacteria which help them to complete their cycles and to grow. There are constructive and destructive bacteria; sugar tends to destroy the former and support colonies of the latter. The constructive bacteria help manufacture the Vitamin B group; if they are lacking, people begin to resort to vitamin pills. Beri-beri is a typical disease which arises when Vitamin B is in short supply.

Cane sugar causes a quick-burning "fire" in our metabolism, producing an acid reaction. Our body should burn slowly and evenly. To cancel this, an emergency mobilization is made; minerals are called out and used to change the strong acids to weak ones, which in turn are changed to carbon dioxide and water and eliminated. As long as we have a sufficient stock of minerals, we can continue to neutralize such overacid conditions, and we will seldom become unbalanced. There are minerals in our daily food which can assist in this. However, if we are taking cane sugar every day, we must begin to mobilize minerals from our storage stock. Today most processed foods contain sugar, and the average American consumes about 100 pounds per year. Calcium represents 40% of our mineral storage, and naturally is mobilized most often. As a result, sugar tends to make our bones weak. Those who ate plenty of sugar in their childhood usually have thin, weak bones and tooth decay. When tooth decay starts in our childhood, it is unlikely that we can enjoy life; our food is completely wrong.

Instead of dealing with the Kremlin and Washington D.C., it is much easier to chew well and eat brown bread; all problems are nothing but self problems. No one else can chew for you, and no one else can sit on the toilet for you. Because of this; you cannot complain to any government; if you are unhappy you have no one else to blame but yourself, so no violence is necessary at all. This is the utmost peaceful way and the most basic. The world's vast population of almost four billion people can be condensed and condensed until this point is reached, a point which is easy to manage. Instead of trying to turn the tide of a vast ocean, we approach the stream while it is still small; then our task is simple.



Natural History

Time we carried this . . .

-SB



Natural History

\$7.00 year (10 issues)

from:
The American Museum of Natural History
Central Park West at 79th Street
New York, New York 10024



Boletus edulis



Lycoperdon perlatum



Coprinus comatus

Most of the mushrooms with pores instead of gills can be eaten, but avoid any that turn blue when cut, and any with red pore mouths. The king boletus, which can reach a size of ten inches across, belongs to the pore group. In Europe it goes under the a number of names—cepe (France), steinpilz (Germany), boroviki (Poland), stensopp (Denmark)—indicating its widespread popularity. The ancient Romans served the king boletus at banquets, using special dishes called "boletarii." In North America it grows in open woodlands from the Atlantic to the Pacific, and for the best flavor should be cooked the day it is picked.

A familiar mushroom is the shaggy mane, *Coprinus comatus*, which grows along roadsides, in wasteland, in city gardens, and back lanes. Its tall, cylindrical cap, grayish white in color and covered with ragged scales, is unmistakable. It must be picked young and cooked at once, for if left for only a few hours the gills dissolve into an inky fluid. Oven cooking is best for the shaggy mane, as the caps are soft and fragile and tend to disintegrate unless handled carefully.



Cheetahs prefer to hunt a solitary individual or one in a small herd, because they have difficulty selecting a gazelle and keeping it in sight in a large, milling herd. Individuals that enter tall grass, graze behind some bushes, or otherwise enable the cheetah to stalk undetected are chosen. With endless patience the cat may wait for a gazelle to lower its head and graze while briefly facing away from the danger thus giving the cheetah an undetected second during the rush—often the difference between success and failure. The selection process is not always an easy one. Cheetahs sometimes bound toward a herd, then give up for no obvious reason, probably because they are unable to find a suitable quarry. Or they first pursue a herd at moderate speed before suddenly making a selection.

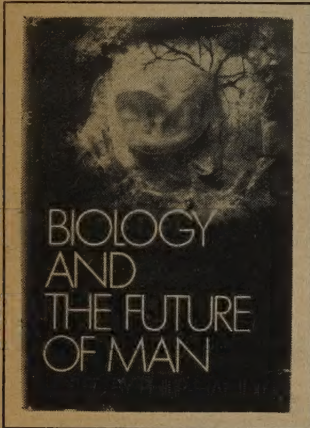
. . . After knocking a gazelle down by hitting its flank or rump with a paw, the cheetah typically grabs it by the throat and throttles it, a task that requires four and a half minutes on the average. The carcass is often dragged to a shady spot. Cheetahs usually eat the meat off one thigh first; after that they cut the meat from the abdomen and rib cage, sometimes stopping to lap up any blood that collects in the body cavity. Finally they strip the rest of the meat from the inside. All that generally remains is the articulated skeleton with much of the skin and the whole digestive tract. The cats eat rapidly, glancing nervously around at intervals. This is not surprising, for lions, hyenas, and other predators often arrive at the kill, having been alerted by the descending vultures that a meal is in the offing. Cheetahs are timid creatures, low in the predator hierarchy, and 12 percent of their kills end in someone else's stomach. Twice I saw a cheetah driven from its kill by a solid phalanx of vultures. The cheetahs did little to retaliate when their kill was scavenged except to hiss and moan in a peculiar manner, although one bold hyena was slapped in the face.

*** Biology and the Future of Man**

Where we are today technologically (and thus politically) is largely the product of several specific scientific revolutions that gathered steam early in the century—most notably mass medicine, nuclear physics, and investigation of materials. Since World War II the Information Sciences (computers, cybernetics, organization theory) have wrought considerable havoc and promise. Now we're in for biology, says everybody, probably right. Molecular biology, already mature, has only begun to hit the fan. Ecology, though in great demand, has short supply so far. The glamour light, long in molecular biology, may now be migrating into brain science, the very heart of darkness. Still waiting for systematic study is the big version of brain science. The participation of consciousness in evolution.

This book probably supports few of my assertions above. It is an authoritative up-to-the-year report on the state of biology by the leading biologists, with emphasis on unanswered questions and promising leads and possible impact of all this on society in the near future. It's a heavy book, implying no lightsome future. Technology marches on, over you or through you, take your choice.

-SB



Biology and the Future of Man
edited by Philip Handler
1970; 936pp.

\$12.50 postpaid

from:
Oxford University Press
200 Madison Avenue
New York, New York 10016

or WHOLE EARTH CATALOG

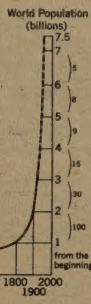
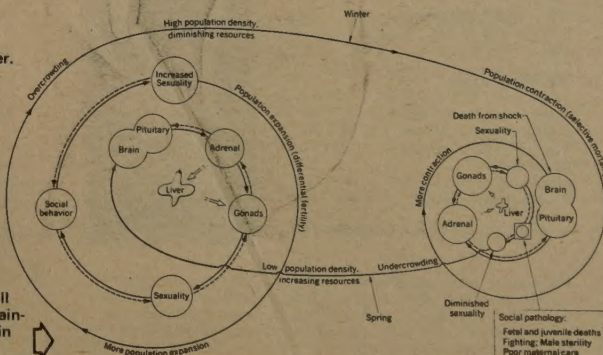


Figure 20-2. World Population Growth (Projected with assumption of constant fertility levels and declining mortality).

... any desired number of genetic twins could be produced. It would require the collection of unfertilized eggs from the oviducts of many women, removal of the egg nuclei, and replacement by the nuclei of body cells of the chosen man or woman. This would be followed by return of the eggs to the uteri of women who then would undergo normal pregnancies. In this way one could produce multiple identical copies of any person judged admirable.

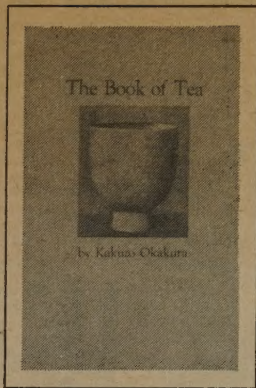
At the present moment of extremely dangerous population growth, social pressures are best directed to lower reproduction, in general, without qualitative considerations. But one day, when populations are stable, world peace is the norm, and man's social and political institutions are sufficiently mature to assure that biological understanding will not be utilized to perpetuate injustice or strengthen dictatorship but, rather, to expand human potential, man will be free to guide his own evolutionary destiny. ... Man's view of himself has undergone many changes. From a unique position in the universe, the Copernican revolution reduced him to an inhabitant of one of many planets. From a unique position among the millions of other species which evolved from one another. Yet, *Homo sapiens* has overcome the limitations of his origin. He controls the vast energies of the atomic nucleus, moves across his planet at speeds barely below escape velocity, and can escape when he so wills. He communicates with his fellows at the speed of light, extends the powers of his brain with those of the digital computer, and influences the numbers and genetic constitution of virtually all other living species. Now he can guide his own evolution. In him, Nature has reached beyond the hard regularities of physical phenomena. *Homo sapiens*, the creation of Nature, has transcended her. From a product of circumstances, he has risen to responsibility. At last, he is Man. May he behave so!

Schematic diagram of the annual population cycle of a small mammal, conceived as controlled by and controlling the brain-pituitary-adrenal-gonad system. (From Edward S. Deevey, in Bresler, J.B., *Environment of Man*, Addison-Wesley, 1968)



*** The Book of Tea**

this book is not just about tea.
-J.D.



The Book of Tea
Kakuzo Okakura
1964; 76pp.

\$1 postpaid

from:
Dover Publications
180 Verick Street
New York, N.Y. 10014

or WHOLE EARTH CATALOG

Tea began as a medicine and grew into a beverage. In China, in the eighth century, it entered the realm of poetry as one of the polite amusements. The fifteenth century saw Japan ennoble it into a religion of aestheticism,—Teasim. Teasim is a cult founded on the adoration of the beautiful among the sordid facts of everyday existence. It inculcates purity and harmony, the mystery of mutual charity, the romanticism of the social order. It is essentially a worship of the Imperfect, as it is a tender attempt to accomplish something possible in this impossible thing we know as life.

The Philosophy of Tea is not mere aestheticism in the ordinary acceptance of the term, for it expresses conjointly with ethics and religion our whole point of view about man and nature. It is hygiene, for it enforces cleanliness; it is economics, for it shows comfort in simplicity rather than in the complex and costly; it is moral geometry, inasmuch as it defines our sense of proportion to the universe. It represents the true spirit of Eastern democracy by making all its votaries aristocrats in taste.

When will the West understand, or try to understand, the East? We Asiatics are often appalled by the curious web of facts and fancies which has been woven concerning us. We are pictured as living on the perfume of the lotus, if not on mice and cockroaches. It is either impotent fanaticism or else abject voluptuousness. Indian spirituality has been derided as ignorance, Chinese sobriety as stupidity, Japanese patriotism as the result of fatalism. It has been said that we are less sensible to pain and wounds on account of the callousness of our nervous organization!

Why not amuse yourselves at our expense? Asia returns the compliment. There would be further food for merriment if you were to know all that we have imagined and written about you. All the glamour of the perspective is there, all the unconscious homage of wonder, all the silent resentment of the new and undefined. You have been loaded with virtues too refined to be envied and accused of crimes too picturesque to be condemned. Our writers in the past,—the wise men who knew,—informed us that you had busy tails somewhere hidden in your garments, and often dined off a fricassee of newborn babes! Nay, we had something worse against you: we used to think you the most impracticable people on the earth, for you were said to preach what you never practised.

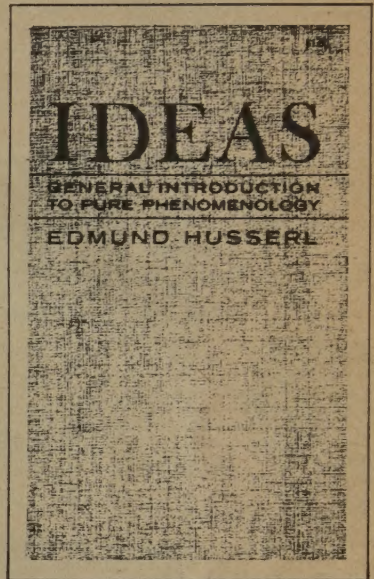
In joy or sadness, flowers are our constant friends. We eat, drink, sing, dance, and flirt with them. We wed and christen with flowers. We dare not die without them. We have worshipped with the lily, we have meditated with the lotus, we have charged in battle array with the rose and the chrysanthemum. We have even attempted to speak in the language of flowers. How could we live without them? It frightens one to conceive of a world bereft of their presence. What solace do they not bring to the bedside of the sick, what a light of bliss to the darkness of weary spirits? Their serene tenderness restores to us our waning confidence in the universe even as the intent gaze of a beautiful child recalls our lost hopes. When we are laid low in the dust it is they who linger in sorrow over our graves.

Sad as it is, we cannot conceal the fact that in spite of our companionship with flowers we have not risen very far above the brute. Scratch the sheepskin and the wolf within us will soon show his teeth. It has been said that man at ten is an animal, at twenty a lunatic, at thirty a failure, at forty a fraud, and at fifty a criminal. Perhaps he becomes a criminal because he has never ceased to be an animal. Nothing is real to us but hunger, nothing sacred except our own desires. Shrine after shrine has crumbled before our eyes; but one altar forever is preserved, that whereon we burn incense to the supreme idol,—ourselves. Our god is great, and money is his Prophet! We devastate nature in order to make sacrifice to him. We boast that we have conquered Matter and forget that it is Matter that has enslaved us. What atrocities do we not perpetrate in the name of culture and refinement!

*** Ideas**

i started out reviewing husserl's system by saying it was exciting, revolutionary, ecstatic, and so forth, then, having left for a few moments' bathroom meditation, came back to find that pam had scribbled "It's hard to hustle Husserl!" across the top of the page. she is correct. it is hard to hustle husserl, like its hard to fondle fuller, or cuddle kant, but if you have a little time, and would like to learn a methodology to plug your intuition into, then here's your boy. husserl was the teacher of both sartre and heidegger, that should give you some idea of the complexities involved.

-jd



Ideas: General Introduction to Pure Phenomenology
Edmund Husserl
1962; 446 pp.

\$1.50 postpaid

from:
Collier-Macmillan Distributing
866 Third Avenue
New York, New York 10022

or WHOLE EARTH CATALOG

It is true that a certain difficulty attaches to all disciplines that are referred back upon themselves, and in this respect that the first introduction to them, as also the first serious inquiry into their import, must operate with certain accessories of method which they have first in the sequel to shape in a scientifically adequate way. Without preliminary and preparatory considerations both of matter and method, the sketch of a new science could never be outlined. But the concepts and the other methodic elements with which psychology, phenomenology, and so forth, in their beginnings, operate in such preparatory treatises, are themselves psychological, phenomenological, and so forth, and first acquire their scientific impress within the system of the science already grounded.

Obviously no really serious doubts which might hinder the real development of such sciences and of phenomenology in particular need disturb us in this direction. If it figures as a science *within the limits of mere immediate intuition*, a pure "descriptive" science of Essential Being, the general nature of its procedure is given in advance as something that needs no further explanation. It has to place before its own eyes as instances certain pure conscious events, to bring these to complete clearness, and within this zone of clearness to subject them to analysis and the apprehension of their essence, to follow up the essential connexions that can be clearly understood, to grasp what is momentarily perceived in faithful conceptual expressions, of which the meaning is prescribed purely by the object perceived or in some way transparently understood. If this procedure in its unsophisticated form serves at first only to make one at home in a new domain, to practise seeing, apprehending, analysing generally within it, and to encourage some acquaintance with its data, scientific reflection upon the essential nature of the procedure itself, upon the essential nature of the types of presentation which play their part within it, upon essence, performance, conditions of complete clearness and insight, as well as of completely true and steady conceptual expression, and more of the same kind, undertakes the function of a general and logically rigorous methodic grounding. Followed up deliberately, it takes on the character and rank of scientific method; and this, in any given case, in the application of rigorously formulated methodic standards, permits of the practice of a limiting and improving criticism. The essential relation of phenomenology to its own self here reveals itself in this, that what there in methodic reflexion under the rubrics: clearness, insight, expression, and the like, is considered and established, itself belongs on its own side to the phenomenological domain, that all the reflexive analyses are phenomenological analyses of the essential nature of things, and the methodological insights obtained in respect of their establishment come under the very norms which they formulate. Thus it must be possible through fresh reflexions to convince oneself on every occasion that statements in the methodological propositions can be given with complete clearness, that the concepts utilized really and truly answer to what is given, and so forth.

I Seem to be a Verb

a patchwork book,
not all fuller's goodies,
but shooting out of the mainstream
of today's media concerns with
breaking the old codes,
you can read it forwards,
or backwards,
inbetween,
upside down,
whatever's right.

—jd



I Seem to be a Verb
Fuller, Agel, Fiore
1970; 192pp.

\$1.65 postpaid

from:
Bantam Books Inc.
666 Fifth Avenue
New York, New York 10019

or WHOLE EARTH CATALOG

I always start with
the universe: An organiza-
tion of regenerative
principles frequently
manifest as energy
systems of which all
our experiences, and
possible experiences,
are only local instances.

"Now that I'm here, where am I?"—Janis Joplin, day after
making it big in N.Y.C.

"It is necessary for me to establish a winner image.
Therefore,

I have to beat somebody."

—Richard Nixon in early 1968.

Utopia or Oblivion
R. Buckminster Fuller
1969; 366pp.

\$1.25 postpaid

from:
Bantam Books
666 Fifth Avenue
New York, New York 10019

or WHOLE EARTH CATALOG



My recommendation for a curriculum of design science:

- | | |
|----------------------------------|----------------------------|
| 1. Synergetics | 7. Communications |
| 2. General systems theory | 8. Meteorology |
| 3. Theory of games (Von Neumann) | 9. Geology |
| 4. Chemistry and physics | 10. Biology |
| 5. Topology, projective geometry | 11. Sciences of energy |
| 6. Cybernetics | 12. Political geography |
| | 13. Ergonomics |
| | 14. Production engineering |

Here on Southern Illinois' campus we are going to set up a great computer program. We are going to introduce the many variables now known to be operative in economics. We will store all the basic data in the machines memory bank; where and how much much of each class of the physical resources; where are the people, what are the trends—all kinds of trends of world man?

Next we are going to set up a computer feeding game, called "How Do We Make the World Work?" We will start playing relatively soon. We will bring people from all over the world to play it. There will be competitive teams from all around earth to test their theories on how to make the world work. If a team resorts to political pressures to accelerate their advantages and is not able to wait for the going gestation rates to validate their theory they are apt to be in trouble. When you get into politics you are very liable to get into war. War is the ultimate tool of politics. If war develops the side inducing it loses the game.

Nine Chains to the Moon
Buckminster Fuller
1938, 1963; 375 pp.

\$2.45 postpaid

from:
Southern Illinois University Press
600 West Grand
Carbondale, Illinois 62903

or WHOLE EARTH CATALOG

This phantom captain has neither weight nor sensorial tangibility, as has often been scientifically proven by careful weighing operations at the moment of abandonment of the ship by the phantom captain, i.e., at the instant of "death". He may be likened to the variant of polarity dominance in our bipolar electric world which, when balanced and unit, vanishes as abstract unity 1 or 0. With the phantom captain's departure, the mechanism becomes inoperative and very quickly disintegrates into basic chemical elements.

An illuminating rationalization indicated that *captains*—being phantom, abstract, infinite, and bound to other captains by a bond of understanding as proven by their recognition of each other's signals and the meaning thereof by reference to a common direction (toward "perfect")—are not only all related, but are one and the same captain. Mathematically, since characteristics of unity exist, they cannot be non-identical.

Since Yogi is a personalized art, the art dies with the person. The abstract power involved remains as real and true, always, but it cannot be made utilizable in increasing continuity for the world in general. Christ and his counterparts realized this and were unique in their refusal to apply this power to self ends. It was this personal limitation of the Yogi art which led the prosaic philosophers to search further. They sought a means of limitless articulation.

FULLER



What I am trying to do. As a conscious means of hopefully competent participation by humanity in its own evolutionary trending while employing only the unique advantages inhering exclusively to the individual who takes and maintains the economic initiative in the face of the formidable physical capital and credit advantages of the massive corporations and political states I seek through comprehensively anticipatory design science and its reduction to physical practice to reform the environment instead of trying to reform man also intend thereby to accomplish prototyped capabilities of doing more with less whereby in turn the wealth-regenerating prospects of such design-science augmentations will induce their spontaneous and economically successful production by world-around industrialization's managers all of which chain reaction-provoking events will both permit and induce all humanity to realize full lasting economic and physical success plus enjoyment of all the Earth without one individual interfering with or being advantaged at the expense of another.

[I Seem To Be a Verb]

Buckminster Fuller

The insights of Buckminster Fuller initiated this catalog.

Among his books listed here, *Utopia or Oblivion* is now probably the most direct introduction. It's a collection of his talks and papers from 1964 to 1967, at a bargain price. An *Operating Manual for Spaceship Earth* is his most recent, and succinct, statement. *Nine Chains to the Moon* is early, and openly metaphysical. The *Untitled Epic of Industrialization* is lyrical and strong. Ideas and Integrities is his most autobiographical, and perhaps the most self-contained of his books. No More Secondhand God is the most generalized, leading into the geometry of thought.

People who beef about Fuller mainly complain about his repetition—the same ideas again and again, it's embarrassing, also illuminating, because the same notions take on different contexts. Fuller's lectures have a raga quality of rich nonlinear endless improvisation full of convergent surprises.

Some are put off by his language, which makes demands on your head like suddenly discovering an extra engine in your car—if you don't let it drive you faster, it'll drag you. Fuller won't wait. He spent two years silent after illusory language got him in trouble, and he returned to human communication with a redesigned instrument.

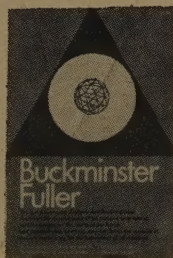
—SB

Ideas and Integrities
Buckminster Fuller
1963; 318pp.

\$1.95 postpaid

from:
Collier Books
The MacMillan Company
Order Dept.
Front and Brown Streets
Riverside, N.J. 08075

or WHOLE EARTH CATALOG



You belong to the universe. The significance of you will forever remain obscure to you, but you may assume that you are fulfilling your significance if you apply yourself to converting all your experiences to highest advantage of others. You and all men are here for the sake of other men.

I define "synergy" as follows: Synergy is the unique behavior of whole systems, unpredicted by behavior of their respective sub-systems' events.

Operating Manual for Spaceship Earth
Buckminster Fuller
1969; 133pp.

\$1.95 postpaid

from
Simon & Schuster, Inc.
630 Fifth Avenue
New York, New York 10020

or WHOLE EARTH CATALOG

For **\$4.95** you can get a paperback called *Environment and Change* which has an identical "Operating Manual" along with 24 other futuristic articles, including fine pieces by R. G. H. Siu, John R. Platt, Herman Kahn, Robert Theobald, Gunnar Myrdal, David Buzelon and John Turner

Environment and Change: The Next Fifty Years
W. R. Ewald, jr., ed.
1968; 392 pp.

\$4.95 postpaid

from:
University of Indiana Press
P. O. Box 369
Bloomington, Indiana 47401

To begin our position-fixing aboard our Spaceship Earth we must first acknowledge that the abundance of immediately consumable, obviously desirable or utterly essential resources have been sufficient until now to allow us to carry on despite our ignorance. Being eventually exhaustible and spoilsable, they have been adequate only up to this critical moment. This cushion-for-error of humanity's survival and growth up to now was apparently provided just as a bird inside of the egg is provided with liquid nutriment to develop it to a certain point. But then by design the nutriment is exhausted at just the time when the chick is large enough to be able to locomote on its own legs. And so as the chick pecks at the shell seeking more nutriment it inadvertently breaks open the shell. Stepping forth from its initial sanctuary, the young bird must now forage on its own legs and wings to discover the next phase of its regenerative sustenance.

Brain deals exclusively with the physical, and mind exclusively with the metaphysical. Wealth is the progressive mastery of matter by mind . . .

A new, physically uncomprised, metaphysical initiative of unbiased integrity could unify the world. It could and probably will be provided by the utterly impersonal problem solutions of the computers.

Untitled Epic Poem on the History of Industrialization
Buckminster Fuller
1962; 227pp.

\$1.95 postpaid

from
Simon & Schuster, Inc.
630 Fifth Avenue
New York, New York 10020

or WHOLE EARTH CATALOG

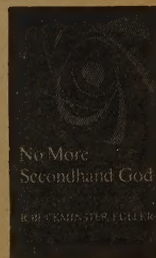
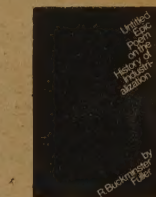
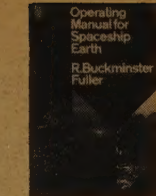
However, man unconcernedly sorting mail on an express train, with unuttered faith that the engineer is competent, that the switchmen are not asleep, that the track walkers are doing their job, that the technologists who designed the train and the rails knew their stuff, that the thousands of others whom he may never know by face or name are collecting tariffs, paying for repairs, and so handling assets that he will be paid a week from today and again the week after that, and that all the time his family is safe and in well being without his personal protection constitutes a whole new era of evolution—the first really "new" since the beginning of the spoken word. In fact, out of the understanding innate in the spoken word was industrialization wrought after millenniums of seemingly whitherless spade work.

No More Secondhand God
Buckminster Fuller
1963; 163 pp.

\$2.25 postpaid

from:
Southern Illinois University Press
600 West Grand
Carbondale, Illinois 62903

or WHOLE EARTH CATALOG



Thinking is a putting-aside, rather than a putting-in discipline, e.g., putting aside the tall grasses in order to isolate the trail into informative viewability. Thinking is FM—frequency modulation—for its results in tuning-out of irrelevancies as a result of definitive resolution of the exclusively tuned-in or accepted feed-back messages' pattern differentiability.

["Omnidirectional Halo" No More Secondhand God]



Canadian Whole Earth Almanac
Tracy McCallum, editor
1970; 122pp.

single copies **\$3.00**
subscription per year: **\$9.00**

from:
The Canadian Whole Earth Almanac
341 Bloor Street West
Room 208
Toronto 181, Ontario, Canada

India Trading Co. Ltd.

Located at:
113 Dupont St.
Toronto 180, Ont.

Carries a complete line of all ingredients necessary in Indian cookery. Spices, flours, rice, Dahls, chutneys, nuts, and vermicelli. Price list upon request.

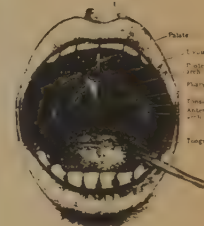
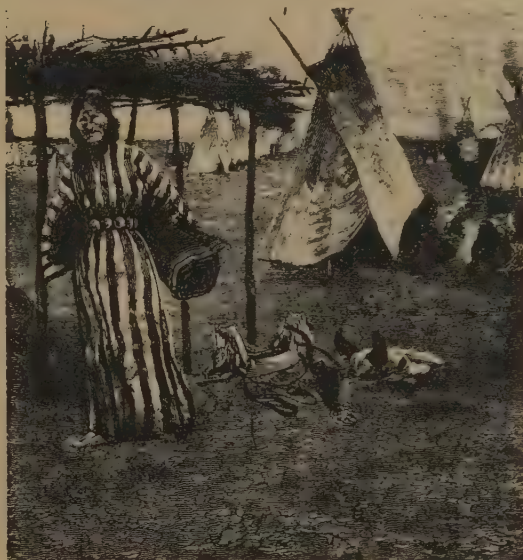


★ **Canadian Whole Earth Almanac**

son of whole earth meets the mapleleaf mysteries and superpress, breeds with them, and gives birth to a beautiful babybeaver catalog, thats the script.

-jd

This first issue of the Almanac has been a long time coming. It was first conceived in response to the Canadian subscribers to the Whole Earth Truck Store in Menlo Park, California, complaining of a dearth of information in regard to sources for tools and books in Canada. My wife and I owned a farm in Canada and had experienced similar difficulties. Some time in January of this year when I was temporarily managing the Whole Earth Truck Store, I was talking with Stewart Brand and suggested that someone ought to publish a Canadian version of the Catalog. To this he responded, "Maybe you should." So here we are.



Garlic—heads to peas and beans. Garlic is very useful elsewhere in the garden as a pest repellent. A tea made with fresh garlic helps against potato blight. Roses grown near garlic have a stronger perfume. Onions—are good planted with beets and carrots. A few combs plants (1 every 4 yds. of onions) are beneficial to the onions. Do not plant onions near peas or beans, as onions inhibit their growth.

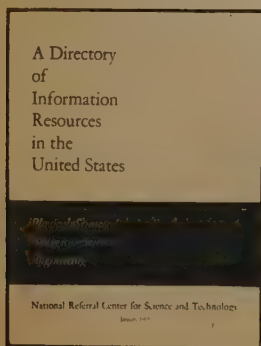


★ **A Directory of Information Resources in the United States**

walking down through berkeley one day reading all the three by five needs on the peoples bulletin boards i started wondering if there was someone who was acting as a runner between the different ideas, getting "need riders to valentine, nebraska, leaving 9/5/70" together with the person on the next bulletin board "desperately trying to get to pine ridge, south dakota, by the tenth." well, if there are ombudsmen around, this book should be of some use to them, a mail order researcher's wetdream tool, plug in your questions, make the connections, sit back and gather goodies.

-jd

[Suggested by Stephen Eric Shore.]



SOLAR ENERGY SOCIETY
Technical Research Science Center
Campus, Arizona State University
Tempe, Ariz. 85281
Telephone: 966-3534 (Area code: 602)

The Center acquires, analyzes, abstracts, and indexes published and other prepared information in the field of solar energy, including research and development and production data. Areas covered are: Solar energy as a source of heat for evaporation processes, space-water heating and absorptive collectors, cooling processes, solar cookers and heat collectors, thermoelectric devices, vapor, hot air, fluid-heat engines, solar furnaces, and thermionic devices; solar energy as a source of light for photo chemical processes and photoelectric, photovoltaic, photogalvanic, and piezoelectric effects; and the general aspects of solar energy, including radiation mechanics and availability, economic, social, and cultural parameters of solar energy, accessories, geophysical and meteorological aspects, materials and production, energy storage, historical and foreign aspects, data sources and bibliographies, proceedings, symposia, and meetings. Foreign language publications are in Russian, Italian, Spanish, French, and German.

Information services are available without charge. The Center answers technical questions, performs literature searches, compiles data and reports, and provides a consulting service. Reports and data are reproduced for a fee. No loans are permitted.

Both *Solar Energy*, which contains abstracts, and *Sun at Work* are issued quarterly. They are free to members and available to others on subscription. *The Applied Solar Energy Research* directory and bibliography is published every 5 years.

A Directory of Information Resources in the United States
National Referral Center for Science and Technology
1965; 352 pp.

\$2.25

from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

or **WHOLE EARTH CATALOG**

LOS ANGELES COUNTY AIR POLLUTION CONTROL DISTRICT
434 South San Pedro Street
Los Angeles, Calif. 90012
Telephone: 629-4711 (Area code: 213)

A local Government agency, the APCD compiles, analyzes, and generates data and reports on air pollution, source control, and air monitoring for the Los Angeles area. Data are available for on-site reference only. Most reports are free; a limited number are available at cost.

Publications obtainable free on request include the monthly *News Report*, the monthly *Report of Meteorology, Air Pollution Effects and Contaminant Maxima (Los Angeles County)*, and the *Quarterly Contaminant Report*.

LABORATORY OF TREE RING RESEARCH
University of Arizona
Tucson, Ariz. 85717
Telephone: 624-8181 Extension 807 (Area code: 602)

Sponsored by Federal, State, and private institutions, the Laboratory conducts studies in tree growth and climate, the development of millenia-long tree-ring chronologies, and the application of tree-ring dates to prehistoric events, particularly in archeology. The age of plants and any structure or event with which they were associated while living or after they had been cut or dried is determined. Past climates are interpreted, with particular reference to trends which might be repeated in the future. Approximately 100,000 prehistoric tree-ring specimens, mostly from the Southwest, are housed in the Laboratory. Approximately 15,000 specimens from living or recently dead trees from the western part of the United States, as well as from Canada, Alaska, and Mexico, are also available for study. Included in the latter group are samples from sequoias up to 3,200 years old and bristlecone pines up to 4,600 years old.

A library, maintained primarily for staff members and students, is accessible for use by the public. A consulting service is available on a fee basis.

The quarterly *Tree Ring Bulletin* is available with annual membership in the Tree Ring Society or by purchase.

The Environmental Handbook

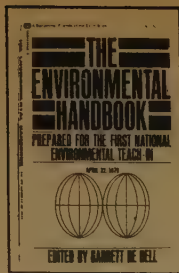
The Environmental Handbook as "the bible" of New Conservation. Paul Ehrlich, the others, as prophets predicting the literal end of the world. Ecology Action, the others, as young disciples working zealously to save it. The Survival Walk from Sacramento to L.A. as a modern version of the crusades. The public outcry against pollution as an evangelical call to cast out evil. San Jose State students actually burying a devil alive, in the form of a new Maverick.

While Lynn White Jr. says: "Human ecology is deeply conditioned by beliefs about our nature and destiny—that is, by religion. . . . The victory of Christianity over paganism was the greatest psychic revolution in the history of our culture. . . . We continue today to live, as we have lived for about 1700 years, very largely in a context of Christian axioms. . . . Christianity, in absolute contrast to ancient paganism and Asia's religions . . . not only established a dualism of man and nature but also insisted that it is God's will that man exploit nature for his proper ends. . . . [Christians] are superior to nature, contemptuous of it, willing to use it for our slightest whim."

Conservation asking Christian America to quit being Christian America, America saying can't, I need the money.

Psychic revolution. Beginnings of religious war. Christ a space-age anti-Christ. Battle in the cockpit. Veer left, veer right. 66,000 miles an hour. Off course! Quick! Somebody grab the wheel!

[Reviewed by Gurney Norman]



The Environmental Handbook
Garrett De Bell, editor
1970; 365 pp.

\$.95 postpaid

from:
Ballantine Books
101 Fifth Avenue
New York, New York 10003

or WHOLE EARTH CATALOG

The phrase, "health of the environment" is not a literary convention. It has a real biological meaning, because the surface of the earth is truly a living organism. Without the countless and immensely varied forms of life that the earth harbors, our planet would be just another fragment of the universe with a surface as drab as that of the moon and an atmosphere inhospitable to man. We human beings exist and enjoy life only by virtue of the conditions created and maintained on the surface of the earth by the microbes, plants and animals that have converted its inanimate matter into a highly integrated living structure. Any profound disturbance in the ecological equilibrium is a threat to the maintenance of human life as we know it now.

Rene DuBos

I personally doubt that disastrous ecologic backlash can be avoided simply by applying to our problems more science and more technology. Our science and technology have grown out of Christian attitudes toward man's relation to nature which are almost universally held not only by Christians and neo-Christians but also by those who fondly regard themselves as post-Christians. Despite Copernicus, all the cosmos rotates around our little globe. Despite Darwin, we are *not*, in our heads, part of the natural process. We are superior to nature, contemptuous of it, willing to use it for our slightest whim.

Lynn White, Jr.

Micronesian "out-islander" in particular—that is, those who live across a hundred miles or more of sea from any neighboring islands, and whose contact with the rest of the world is limited to the few souls who arrive on the eighty foot government boat every six months—simply don't think about infinity, or to put it more accurately, the idea that everything is possible.

In order to survive out there by themselves, they've had to gain a pretty good feeling for pacing the breadfruit production and the coconut eating. In some of those places the highest crime is cutting down a coconut tree without communal permission.

Jerry Mander

Education, particularly higher education, is critically important to solving our ecological crisis. . . . The whole direction and purpose and thrust of our culture is toward greater production, greater exploitation. In many if not in most of our universities, there is little criticism of the basic assumptions and value judgments that underlie our current priorities. The university is quite capable of developing an automated machine to harvest any crop, but it is unable to evaluate the long-term social costs of such a development.

Garrett De Bell

By conventional bookkeeping methods, for example, the coal companies strip-mining away the hillsides of Kentucky and West Virginia show a handsome profit. Their ledgers, however, show only a fraction of the true cost of their operations. They take no account of destroyed land which can never bear another crop; of rivers poisoned by mud and seeping acid from the spoil banks; of floods which sweep over farms and towns downstream, because the ravaged slopes can no longer hold the rainfall.

John Fischer.

Ecotactics

The Sierra Club's paperback Ecotactics was published two months after Friends of the Earth brought out The Environmental Handbook. The difference shows, but not enough to hurt. If The Handbook hadn't got there first, Ecotactics would be a hot item indeed. It's not quite as punchy as The Handbook but it's got a lot of good stuff in it, most of it by ecology writers I hadn't heard of before, which I consider a virtue. I mean, I've heard Paul Ehrlich and Rene DuBos and other big guns who appear prominently in The Handbook. I know what they have to say. It's encouraging to see just how many good young writers the whole ecology thing is producing. Since both books cost only 95 cents, the serious ecology revolutionary by all means ought to have copies of each. The complement each other, sort of fill in each other's holes. For example, The Handbook contains Gary Snyder's now famous environmental manifesto, "Four Changes", while Ecotactics presents a short article about Snyder himself himself, as a man, a poet and a naturalist. Both statements deserve wide audiences. So do both the books as wholes.

[Reviewed by Gurney Norman]



Ecotactics
1970; 287 pp.

\$.95 postpaid

from:
Simon and Schuster, Inc.
630 Fifth Avenue
New York, New York 10020

or WHOLE EARTH CATALOG

To deal with a system of oppression and suppression, which characterizes the environmental violence in this country, the first priority is to deprive the polluters of their unfounded legitimacy. Too often they assume a conservative, patriotic posture when in reality they are radical destroyers of a nation's resources and the most fundamental rights of people. Their power to block or manipulate existing laws permits them, as perpetrators, to keep the burden of proof on the victims. In a country whose people have always valued the "open book," corporate and government polluters crave secrecy and deny citizens access to the records of that which is harming their health and safety.

Youth must develop an investigative approach to the problems of pollution. It is one of the most basic prerequisites. Not only must there be a close analysis of corporate statements, and periodicals, annual reports, patents, correspondence, court records, regulations, technical papers, Congressional hearings and agency reports and transcripts, but there must be a search for the dissenting company engineer, the conscience-stricken house lawyer, the concerned retiree or ex-employee, the knowledgeable worker and the fact-laden supplier of the industry or company under study. They are there somewhere. They must be located.

Ralph Nader

Though the medium may be the message, the event itself is a very crucial part of what's transmitted. So strive for far-out symbolic actions on meaningful, relevant issues that will seize the imagination and commitment of the press and the public. The overall rule of thumb is to localize the greater issues at hand in the ecology movement. Don't just demonstrate against water pollution; pick a nearby polluted stream and wage a cleanup campaign. Everybody knows industry kills; identify which industries. Shine a giant searchlight on belching smokestacks at night. Give DIS-honor awards to polluters. Picket. Have a mock funeral for an internal combustion engine. A simple idea can blossom into a great publicity-getter, and accomplish something in its own right. Pete Seeger set out last summer with songs and a sailing sloop on the befouled Hudson River and turned on thousands to the problem of water pollution.

John Zeh

I am interested in the way that a man looks at a given landscape and takes possession of it in his blood and brain. For this happens, I am certain, in the ordinary motion of life. None of us lives apart from the land entirely; such an isolation is unimaginable. We have sooner or later to come to terms with the world around us—and I mean especially the physical world, not only as it is revealed to us immediately through our senses, but also as it is perceived more truly in the long turn of seasons and of years. And we must come to moral terms. There is no alternative, I believe, if we are to realize and maintain our humanity, for our humanity must consist in part in the ethical as well as the practical ideal of preservation. And particularly here and now is that true. We Americans need now more than ever before—and indeed more than we know—to imagine who and what we are with respect to the earth and sky. I am talking about an act of the imagination essentially, and the concept of an American land ethic.

N. Scott Momaday

The great enemy of open space is not the Federal government. It's the local governments. There's no local government in this country that is suited to turn down a new payroll or a new property tax base. Our country's built on a property tax supporting local government. Every impoverished county that has lovely open space, every city that wants to expand is going to permit development. After all, it wasn't the local but the Federal government that got in and stopped the jetport. When you say there was no outpouring for the jetport, what you really mean is there wasn't any sentiment in Florida against the jetport.

Paul McCloskey

Perhaps in the future, analysis of those factors which contribute to stress disease will induce inquiry into the values of privacy, shade, silence, the positive stimulus of natural materials and the presence of comprehensible order, indeed natural beauty. When young babies lack fondling and mother love, they sometimes succumb to moronity and death. The dramatic reversal of this pattern has followed simple maternal solicitude. Is the absence of nature—its trees, water, rocks and herbs, sun, moon, stars and changing seasons—a similar type of deprivation? The solicitude of nature, its essence if not its image, may be seen to be vital.

Ian McHarg

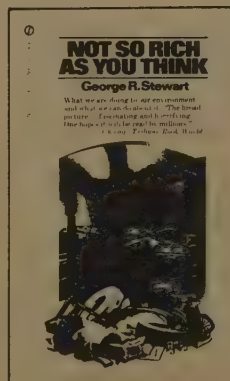
Not So Rich As You Think

Once upon a time, men lived in trees high above the forest floor. It was a gay, carefree life—your food grew right in your house and when you had eaten your fill you tossed the garbage down through the leaves. The same with your shit, and even your body when you died. The forest scavengers and processes of decay speedily disposed of all refuse.

Man came down from the trees long, long ago and created for himself a less carefree way of life. But he remains the filthiest animal around, treating his environment as if it were still magically gobbling up everything he discards. This book documents the folly with the gross disheartening facts. From human excrement to nuclear fallout, with smog, DDT and the junkyard on the way.

—HH

[Suggested by H.R. Hershey, Sr.]



Not So Rich as You Think
George R. Stewart
1968, 70; 176 pp.

\$.95 postpaid

from:
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or WHOLE EARTH CATALOG

We, the civilized people of the world, have come to the end of an era. We have not been arboreal for a million or two years, and we must at last renounce the arboreal assumption that the way to get rid of something is to let it drop. We have run out of space.

So fixed, indeed, is the tradition of water-borne sewage in our civilization and even in our personal feeling that the very imagination flinches before any other idea. Yet one should not forget the earth-closet, as invented, developed, and promulgated around 1860 by the Reverend Henry Moule, of Fordington Vicarage, Dorsetshire, England. Since he was thus a functioning officer of the Church of England, we must assume that Mr. Moule was at least indifferently honest and more or less in his right mind. According to him and to his many disciples in the later nineteenth century, the earth-closet was efficient, wholly inoffensive to have in the house, cheap, simple to work. At least one American company manufactured and distributed it.

From a hopper filled with earth, the pulling of a lever or even the rising of the person from the seat, sifted some dry earth into the bowl. All odor was thus contained, and the excreta rapidly decomposed and mingled with the earth. They mingled indeed so well that the result could eventually be used again, though this petty economy need not be obligatory.

But tote the efficiency in the minimal bulk of product. According to Mr. Moule's published figures, one person needed only two pounds of earth a day. This figure, moreover, was based upon the necessarily crude engineering of a nineteenth-century county parson. What could not our modern experts have developed along this line?

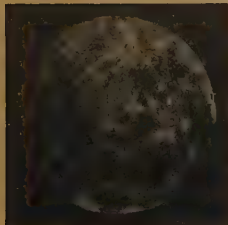
Catalogs of Astronomical Photos

all kinds of spacy pictures
pretty cheap (eight by ten,
a buck fifty or so).

-jd



VENUS: Six views in ultraviolet light: June 6, 23, 24, 26, 30 and July 1, 1927. 100-inch.



L4 Age 14 days (full)



S12 The Whirlpool Galaxy in Canes Venatici (Messier 51, NGC 5194-5).



AREND-ROLAND COMET: Five views, on a single print, taken April 26, 27, 29, 30, and May 1, 1957. 48-inch.

Cat. No. 295†



Cat. No. 138†

A montage of six GALAXIES with NGC numbers and classifications, as follows:

NGC	TYPE	NGC	TYPE
1201	S0	2841	Sb
2811	Sa	3031	Sb
488	Sab	628	Sc

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free

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California Institute of Technology
Bookstore
1201 East California Boulevard
Pasadena, California 91109

Catalog
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Lick Observatory
University of California
Santa Cruz, California 95060

Hallwag Star Map

For two years I've been looking for an inexpensive, accurate, spectacular map of the heavens. This is it, in color. Double and variable stars are indicated, clusters, novae, nebulae, galaxies, and radio sources. Science could have begun with metallurgy, or weather study, or plant breeding. It began with astronomy.

-SB



The Stars
48 1/2 x 33"

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419 Park Avenue South
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The Observer's Handbook

For those who like to stare stars straight in the eye, this is the best amateur astronomer's handbook. Asteroids, clusters, constellations, eclipses, galaxies, planets, nebulae, occultations, radio sources, precession, star maps, sun spots, meteors. Published annually in November.

-SB

[Suggested by Lee Anderson]

The Observer's Handbook
100 pp.

\$1.50 postpaid

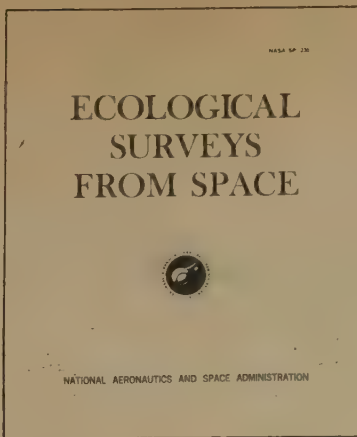
from:
Royal Astronomical Society of Canada
252 College Street
Toronto 2B, Ontario
CANADA

Ecological Surveys From Space

high altitude photos with a purpose.

-jd

[Suggested by Frank Deis]



Ecological Surveys From Space
NASA
1970; 75 pp.

\$1.75 postpaid

from:
Superintendent of Documents
Government Printing Office
Washington, D.C. 20402

or WHOLE EARTH CATALOG

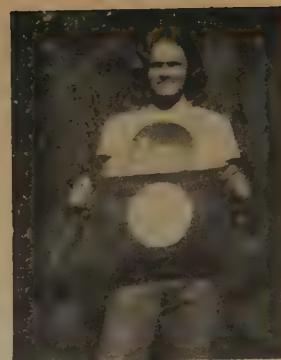


Figure 16 An infrared photo of the Gulf coast showing two plumes of smoke from forest fires December 7, 1965

Full Earth

Mandala Earth, the high noon color image shot from a synchronous satellite over South America in November 1967, is available as a poster from WHOLE EARTH CATALOG for \$2 postpaid. It's 22" x 27". An order of five or more gets 50% discount.

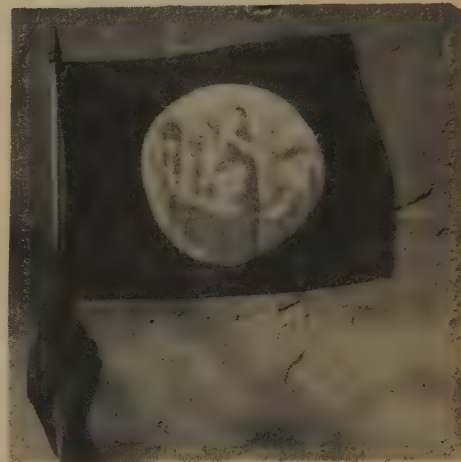
-SB



Earth Flag

A gentleman named John McConnell came into the Truck Store a few weeks ago and said that since all the nations have flags, and the UN has a flag, and states and businesses have flags, maybe there ought to be a flag that's just for people. So he got together with artist Norman LaLiberte and one of the Apollo Earth Photographs and came up with the Earth Flag. I don't know if I'd die for it, but it's the first flag I've seen that I don't feel it somehow excludes me. The Earth Flag feels nice to wave.

-SB



Earth Flag (11 x 13 inches) \$ 1.50 postpaid
(3 x 5 feet) \$12.00 postpaid

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Whole Earth Rising

Bigger and Better color Earth Posters than ours. Good ones are: Giant Earth (shown below) Earth Over Moon, Astronaut White.

-SB



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or WHOLE EARTH CATALOG

★ Standard Handbook for Telescope Making

its difficult for individuals to get it together enough to build and fly a satellite with all the gadgets that go with orbital flight. but its not so tough to build a telescope, zero in on something out there and let all the juicy details ooze through your perceptions of self. of course there are television and earth photos, but telescopes let you see the action live.

-jd

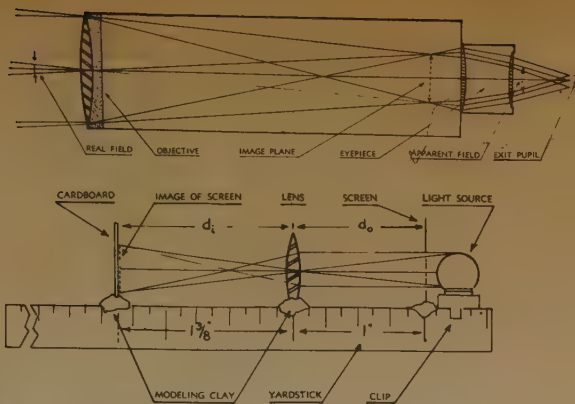
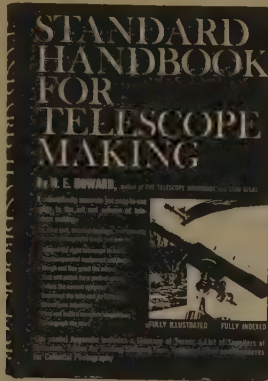
Standard Handbook for Telescope Making

N.E. Howard
1959; 326 pp.

\$8.95

from:
Thomas Y. Crowell Company
788 Bloomfield Avenue
Clifton, New Jersey 107012

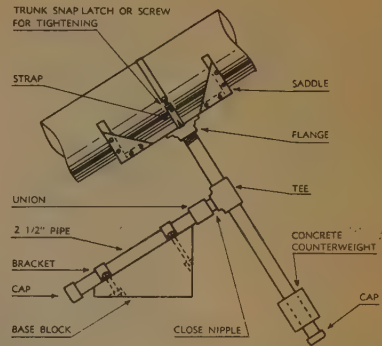
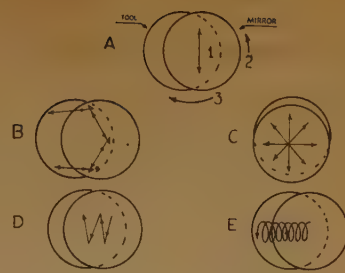
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Measuring focal length by means of a simple optical bench.

This has been a necessarily brief description of the amateur's telescope. The details are given in later chapters. Nothing has been said here about telescope trimmings such as finders, setting circles, clock or synchronous motor drives, photographic accessories, or the like. These, too, are to be discussed later. The essentials of our projected telescope include the following:

1. It will be a simple Newtonian reflector.
2. It will have an 8-inch mirror whose focal length will be approximately 56 inches. In other words, it will be an 8-inch f/7.
3. In order to keep the cost as low as possible, we shall make all the parts ourselves, with the possible exception of the eyepiece and diagonal mirror.
4. It will have an equatorial mounting.
5. We shall have two fixed purposes during the entire operation: to create optical parts as nearly perfect as we can make them, and to provide a mounting whose sturdiness will permit our optics to do their job without interference.



Schematic drawing for a simple pipe mounting.

Star Maker

A man's consciousness unwillingly departs his body and his planet. Once in space he accomplishes willed travel in search of Star Maker. His journey takes him into the minds of other planetary beings; a company of these travel together and witness countless civilizations; eventually they participate in a combined consciousness of worlds that in time embraces the stars as well; this leads to galactic and cosmic consciousness and the culminating encounter with Star Maker.

Jordan Belson, who I trust in these matters, asserts that it is a true vision, that Stapledon's whole life pointed at attaining it, and that the book will be used and discussed for centuries.

This Dover edition includes an earlier Stapledon story, "Last and First Men".

-SB



The sheer beauty of our planet surprised me. It was a huge pearl, set in spangled ebony. It was nacrous, it was an opal. No, it was far more lovely than any jewel. Its patterned colouring was more subtle, more ethereal. It displayed the delicacy and brilliance, the intricacy and harmony of a live thing. Strange that in my remoteness I seemed to feel, as never before, the vital presence of Earth as of a creature alive but tranced and obscurely yearning to wake.

Star Maker

Olaf Stapledon
1937; 188 pp.

\$2.50 postpaid

from:
Dover Publications, Inc.
180 Varick Street
New York, N. Y. 10014

or WHOLE EARTH CATALOG

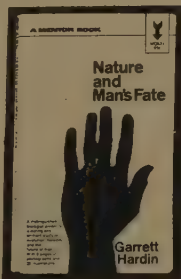
The sport of disembodied flight among the stars must surely be the most exhilarating of all athletic exercises. It was not without danger; but its danger, as we soon discovered, was psychological, not physical. In our bodiless state, collision with celestial objects mattered little. Sometimes, in the early stages of our adventure, we plunged by accident headlong into a star. Its interior would, of course, be inconceivably hot, but we experienced merely brilliance.

The psychological dangers of the sport were grave. We soon discovered that disheartenment, mental fatigue, fear, all tended to reduce our powers of movement. More than once we found ourselves immobile in space, like a derelict ship on the ocean; and such was the fear roused by this plight that there was no possibility of moving till, having experienced the whole gamut of despair, we passed through indifference and on into philosophic calm.

Nature and Man's Fate

THE introduction to theoretical and applied evolution. Hardin is further than anyone in blending the insights of evolution and cybernetics into what may be an embryonic science of general development. Still it's a completely earthy book. The specific history of Darwin and his idea. The specific application of evolutionary understanding to human survival now.

-SB



Nature and Man's Fate

Garrett Hardin
1959; 320 pp.

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or WHOLE EARTH CATALOG

It is not easy to define "play" precisely, but whatever it is, it is something that is in some sense non-competitive, non-rational, non-economic. It is also productive of novelty in viewpoints, opening a path to new ways of doing things that would often never be discovered if only direct, completely rational, wholly efficient approaches were employed. Play, for many men, is by no means confined to childhood; it extends into the adult state, only changing its form. Freud has said, "The child has toys; the mature man has art and science." Out of the play called science—which is possible only to a society rich enough to suspend partially the laws of competition—out of the economically non-competitive intellectual play called science there comes, in fact, a competitive weapon of the most powerful sort, technology. Competition has its own dialectic.

In order to make a perfect and beautiful machine, it is not requisite to know how to make it. Quite so.

... To Darwinians, Design emerges from blind Waste. "To be an Error and to be cast out is a part of God's Design," said William Blake.

Among the impotence principles of socio-biology is surely this: competition is inescapable. That species which has succeeded in eliminating all other species as competitors, ends by becoming its own competitor. The world, in spite of comic-strip science, is a limited one. Man, freed of the population-controlling factors of predators and disease organisms, must—willy-nilly, like it or not—control his own numbers by competition with his own kind. By taking thought he can elect the kind of competition he employs; but he cannot escape all kinds. This is not to imply that the election is a trivial matter.

To the biologist it is clear that the best chances for man's long-time survival depend on the fragmentation of the species into well-separated populations. But it would be foolhardy to say what form the separation should take. It might be a matter of nations, as we know them; or some sort of caste system, that would permit genetic isolation with geographic unity; or—far more likely—some new kind of communities that are neither nation nor caste nor anything that has yet been conceived of.

The crowd-diseases—smallpox, cholera, typhoid, plague, etc.—are, by the ecologist, labeled "density-dependent factors," whose effectiveness in reducing population is a power function of the density of the population. No growth of population could get out of hand as long as the crowd-diseases were unconquered, which means that man did not have to sit in judgment on man, to decide who should have a cover at Nature's feast and who should not. With the development of bacteriological medicine, all this has been changed. Now, the feedback control is man himself.

Darwin's life is symbolic. His *Autobiography* clearly and unconsciously reveals two elements that are needed to produce any creative genius: irresponsibility and alienation. ...

He who is to see what other men have not seen must, in a real sense, become alienated from the crowd. The manner in which this alienation occurs is subject to an infinity of permutations. ...

The wealthy eccentric is a nearly extinct dodo. The man of wealth is now an other-directed man. He may become a lawyer or a doctor. But not a scientist. He is too much a part of the world to achieve the alienation required to be creative. (What millionaire today would have the nerve to do what Darwin did—retire to a "non-productive" life in the country to think?)

... We can hardly expect a committee to acquiesce in the dethronement of tradition. Only an individual can do that, an individual who is not responsible to the mob. Now that the truly independent man of wealth has disappeared, now that the independence of the academic man is fast disappearing, where are we to find the conditions of partial alienation and irresponsibility needed for the highest creativity?

So we see that the concept of progress, for all its historical importance in sheltering the idea of evolution, is not easily applicable to facts of biology.

All men are, by nature, unequal—this is the censored truth of our century. We are as afraid of the consequences of admitting this truth as the Victorians were of the consequences of admitting that men are animals. Yet surely history will ultimately show that, in both instances, the consequences are good and compatible with human decency.

As early as 1920, the philosopher, Bertrand Russell, spelled out the nightmare qualities of the Russian dream in terms that he never needed to revise in the light of later facts. For his pains and his honesty Russell was quietly ousted from his position as the philosophic spokesman of the liberal elements. (Since he was patently unfit to speak for the conservatives either, he was henceforth a philosophic man without a party. This position may not be the most comfortable of all positions, but for a living philosopher it has its advantages.)



Fig. 12. Evolution, as it has probably occurred in a group of plants: showing how "nature is too disorderly" for those who seek to find clean-cut "phylogenetic trees" and unidirectional evolution everywhere. (From Clausen, *Stages in the Evolution of Plant Species*, Cornell University Press, Ithaca, N. Y.; 1951. By permission.)

★
Kundalini: The Evolutionary Energy in Man

*dear jerry,
 the universe from the inside out,
 through the meditation efforts
 of an Indian government worker,
 a college failure,
 a story of personal contact
 with the cosmos,
 and what happens to a man
 when, unexpectedly,
 he is set apart from his friend,
 by a blinding flash
 of pure white enlightenment.*

—jd

[Suggested by Sam Bercholz]

Kundalini: The Evolutionary Energy in Man

Gopi Krishna
 1970; 252 pp.

\$6.50 postpaid

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 Shambala Publications Inc.
 2010 Seventh Street
 Berkeley, California 94710

or WHOLE EARTH CATALOG



During one such spell of intense concentration I suddenly felt a strange sensation below the base of the spine, at the place touching the seat, while I sat cross-legged on a folded blanket spread on the floor. The sensation was so extraordinary and so pleasing that my attention was forcibly drawn towards it. The moment my attention was thus unexpectedly withdrawn from the point on which it was focused, the sensation ceased. Thinking it to be a trick played by my imagination to relax the tension, I dismissed the matter from my mind and brought my attention back to the point from which it had wandered. Again I fixed it on the lotus, and as the image grew clear and distinct at the top of my head, again the sensation occurred. This time I tried to maintain the fixity of my attention and succeeded for a few seconds, but the sensation extending upwards grew so intense and was so extraordinary, as compared to anything I had experienced before, that in spite of myself my mind went towards it, and at that very moment it again disappeared. I was now convinced that something unusual had happened for which my daily practice of concentration was probably responsible. . .

Entirely unprepared for such a development, I was completely taken by surprise; but regaining self-control instantaneously, I remained sitting in the same posture, keeping my mind on the point of concentration. The illumination grew brighter and brighter, the roaring louder, I experienced a rocking sensation and then felt myself slipping out of my body, entirely enveloped in a halo of light. It is impossible to describe the experience accurately. I felt the point of consciousness that was myself growing wider, I felt the point of consciousness that was myself growing wider surrounded by waves of light. It grew wider and wider, spreading outward while the body, normally the immediate object of its perception, appeared to have receded into the distance until I became entirely unconscious of it. I was now all consciousness, without any outline, without any idea of a corporeal appendage, without any feeling or sensation coming from the senses, immersed in a sea of light simultaneously conscious and aware of every point, spread out, as it were, in all directions without any barrier or material obstruction. I was no longer myself, or to be more accurate, no longer as I knew myself to be, a small point of awareness confined in a body, but instead was a vast circle of consciousness in which the body was but a point, bathed in light and in a state of exaltation and happiness impossible to describe.

After some time, the duration of which I could not judge, the circle began to narrow down; I felt myself contracting, becoming smaller and smaller, until I again became dimly conscious of the outline of my body, then more clearly; and as I slipped back to my old condition, I became suddenly aware of the noises in the

street, felt again my arms and legs and head, and once more became my narrow self in touch with body and surroundings. When I opened my eyes and looked about, I felt a little dazed and bewildered, as if coming back from a strange land completely foreign to me. The sun had risen and was shining full on my face, warm and soothing. I tried to lift my hands, which always rested in my lap, one upon the other, during meditation. My arms felt limp and lifeless. With an effort I raised them up and stretched them to enable the blood to flow freely. Then I tried to free my legs from the posture in which I was sitting and to place them in a more comfortable position but could not. They were heavy and stiff. With the help of my hands I freed them and stretched them out, then put my back against the wall, reclining in a position of ease and comfort.

Under the action of a stronger current than that for which it was designed, any man-made mechanism, even a hundredth part as sensitive and intricate as the human frame is, would be wrecked or damaged immediately, but because of certain inherent qualities, developed by the human organism as a means of evolution, the sudden release of the serpent power, provided the blood is healthy and the organs sound, is not attended by fatal results in favourable cases because of safety devices already provided by nature to meet a contingency of this kind in individuals ready for the experience. Even in such cases it is essential that the energy be benignly disposed and that the subject take the necessary precautions to maintain the strength of the body and the balance of the mind during the subsequent period of inexpressibly severe trial. How far I was endowed with a constitution suited for the great ordeal I cannot say, but being an utter stranger to the science, taken unawares without the requisite preliminary course of physical and mental discipline, and a prey to adversity, I was buffeted unceasingly for many years partly because of my ignorance and lack of sufficient strength and partly because of the extreme suddenness and rapidity of the extraordinary development.

I was destined to witness my own transformation, not comparable in any way to the great transfigurations in the past, nor similar in point of results to the marvelous achievements of genius; but though simple in nature and ordinary in effect, a transformation nevertheless, attended all along by great physical and mental suffering. But what I witnessed and still witness within myself is so contrary to many accepted notions of science, at variance with many time-honoured dogmas of faith, and so antagonistic to many of the universally followed dictums of civilization that when what I have experienced is proved empirically there must occur a far-reaching, revolutionary change in every sphere of human activity and conduct.

★
Tao Te Ching

*same tao,
 different translator,
 nicer edition.*

—jd

Tao Te Ching
 Lao Tzu Translated by D.C. Lau
 1963; 68; 192 pp.

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 Penguin Books, Inc.
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There is a thing confusedly formed,
 Born before heaven and earth.
 Silent and void
 It stands alone and does not change,
 Goes round and does not weary.
 It is capable of being the mother of the world.
 I know not its name
 So I style it 'the way'.
 I give it the makeshift name of 'the great'.
 Being great, it is further described as receding,
 Receding, it is described as far away,
 Being far away, it is described as turning back.

Hence the way is great; heaven is great; earth is great; and the king is also great. Within the realm there are four things that are great, and the king counts as one.

Man models himself on earth,
 Earth on heaven,
 Heaven on the way,
 And the way on that which is naturally so.

The world had a beginning
 And this beginning could¹ be the mother of the world.

When you know the mother
 Go on to know the child.
 After you have known the child
 Go back to holding fast to the mother,
 And to the end of your days you will not meet with danger.

Block the openings,
 Shut the doors,
 And all your life you will not run dry.
 Unblock the openings,
 Add to your troubles,
 And to the end of your days you will be beyond salvation.

To see the small is called discernment;
 To hold fast to the submissive is called strength.
 Use the light
 But give up the discernment.
 Bring not misfortune upon yourself.
 This is known as following the constant.²

When the people lack a proper sense of awe, then some awful visitation will descend upon them.
 Do not constrict their living space; do not press down on their means of livelihood. It is because you do not press down on them that they will not weary of the burden.

Hence the sage knows himself but does not display himself, loves himself but does not exalt himself. Therefore he discards the one and takes the other.

The whole world says that my way is vast and resembles nothing. It is because it is vast that it resembles nothing. If it resembled anything, it would, long before now, have become small.

I have three treasures
 Which I hold and cherish.

The first is known as compassion,
 The second is known as frugality,
 The third is known as not daring to take the lead in the empire;

Being compassionate one could afford to be courageous;
 Being frugal one could afford to extend one's territory,
 Not daring to take the lead in the empire one could afford to be lord over the vessels.

Now, to forsake compassion for courage, to forsake frugality for expansion, to forsake the rear for the lead, is sure to end in death.

Through compassion, one will triumph in attack and be impregnable in defence. What heaven succours it protects with the gift of compassion.

The reason why the River and the Sea are able to be king of the hundred valleys is that they excel in taking the lower position. Hence they are able to be king of the hundred valleys.

Therefore, desiring to rule over the people,
 One must in one's words humble oneself before them;

And, desiring to lead the people,
 One must, in one's person, follow behind them.

Know the male
 But keep to the role of the female
 And be a ravine to the empire.
 If you are a ravine to the empire,
 Then the constant virtue will not desert you
 And you will again return to being a babe.
 Know the white
 But keep to the role of the black
 And be a model to the empire.
 If you are a model to the empire,
 Then the constant virtue will not be wanting
 And you will return to the infinite.
 Know honour
 But keep to the role of the disgraced
 And be a valley to the empire.
 If you are a valley to the empire,
 Then the constant virtue will be sufficient
 And you will return to being the uncarved block.

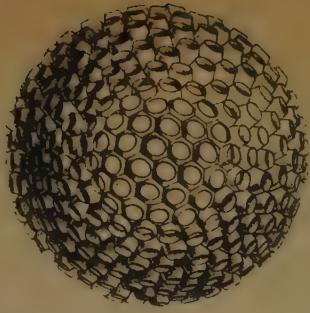
Whoever takes the empire and wishes to do anything to it I see will have no respite. The empire is a sacred vessel and nothing should be done to it. Whoever does anything to it will ruin it; whoever lays hold of it will lose it.

Hence some things lead and some follow;
 Some breathe gently and some breathe hard;
 Some are strong and some are weak;
 Some destroy and some are destroyed.
 Therefore the sage avoids excess, extravagance, and arrogance.

On Growth and Form

A paradigm classic. Everyone dealing with growth or form in any manner can use the book. We've seen worn copies on the shelves of artists, inventors, engineers, computer systems designers, biologists.

-SB



On Growth and Form
D'Arcy Wentworth Thompson
Two volume edition
1917, 1952

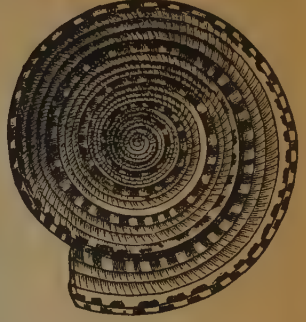
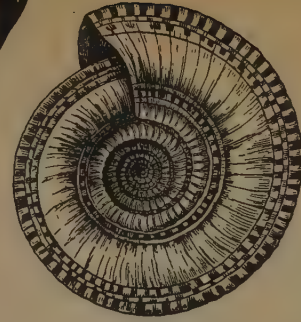
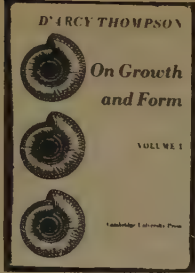
\$27.50 postpaid

Abridged paper edition
1917, 1961; 346 pp.

\$2.75 postpaid

from:
Cambridge University Press
510 North Avenue
New Rochelle, New York 10801

or WHOLE EARTH CATALOG



The Subversive Science

"So God created man in his own image, in the image of God he created him; male and female he created them. And God blessed them, and God said to them, 'Be fruitful and multiply, and fill the earth and subdue it, and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.'"
Genesis 1, 27-28.

And we have been fruitful, and we have filled the earth and subdued it, and we have dominion over every living thing. And what is subversive about ecology is that we know now we must turn aside from that ancient narrow edict, and live with, and not upon, the earth.

The Subversive Science is thirty-seven essays on the shape of life. By its very breadth it creates a depth of truth no single point of view could ever make. There is a new world view within this book, a new sense of ourselves and our position on and within this earth. It is rigorous and scientific and yet in its vibrant complexity almost mystic.

[Reviewed by Cary James]

Igloos, tepees, prairie sod-huts, hogans, pueblos—have ecology in their roof-lines.

These shelters for families, like such individual protectors as sunbonnets, sombreros, serapis, are oriented to a landscape, to weather, and to local materials.

Perpetual Motion Journal

ever try to figure out a generator driving a motor driving a generator driving a motor? or a waterpowered water pump?
irvin barrows is a truck driver in st. louis and his journal is concerned with perpetual motion.

-jd

[Suggested by Jay S. Mendell]

**The Subversive Science—
Essays Toward an Ecology
of Man**

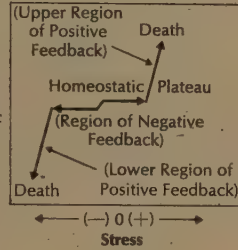
Paul Shepard
Daniel McKinley, eds.
1969; 453 pp.

\$5.95 postpaid

from:
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Wayside Road
Burlington, Mass. 01803

or WHOLE EARTH CATALOG

Variable
Characteristic

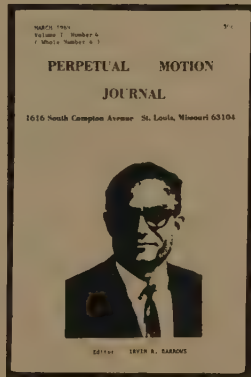
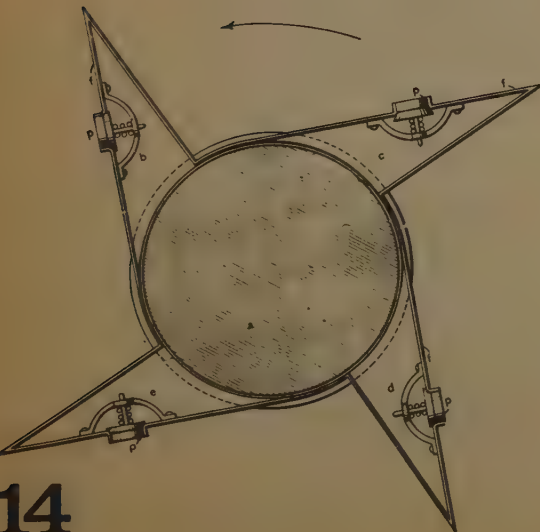


The desire to maintain absolute constancy in any system must be recognized as deeply pathological. Engineering theory indicates that excessive restraints can produce instability. In psychiatry also, the desire for complete certainty is recognized as a most destructive compulsion. And in the history of nations, attempts to control rigidly all economic variables have uniformly led to chaos. The psychologically healthy human recognizes that fluctuations are unavoidable, that waste is normal, and that one should institute only such explicit controls as are required to keep each system on its homeostatic plateau. We must devise and use such controls as are needed to keep the social system on the homeostatic plateau. On this plateau—but not beyond it—freedom produces stability.

We who were close to the Indians watched the disappearance of boys from public view. Even their father saw them no more. After sometimes a year, sometimes eighteen months, the boys returned—from the underground kivas, from the pathless areas of the Sangre de Cristo range, from the hidden crag where perhaps burns the mystical everlasting fire. Radiant of face, full-rounded and powerful of body, modest, detached: they were men now, keepers of the secrets, houses of the Spirit, reincarnations of the countless generations of their race; with "reconditional reflexes," with emotions organized toward their community, with a connection formed until death between their individual beings and that mythopoeic universe—that cosmic illusion—that real world—as the case may be, which both makes man through its dreams and is made by man's dreams.

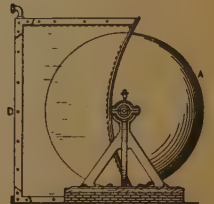
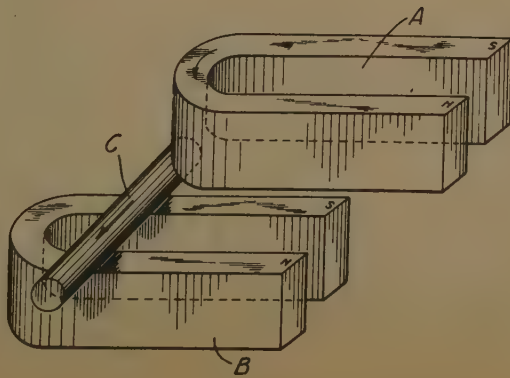
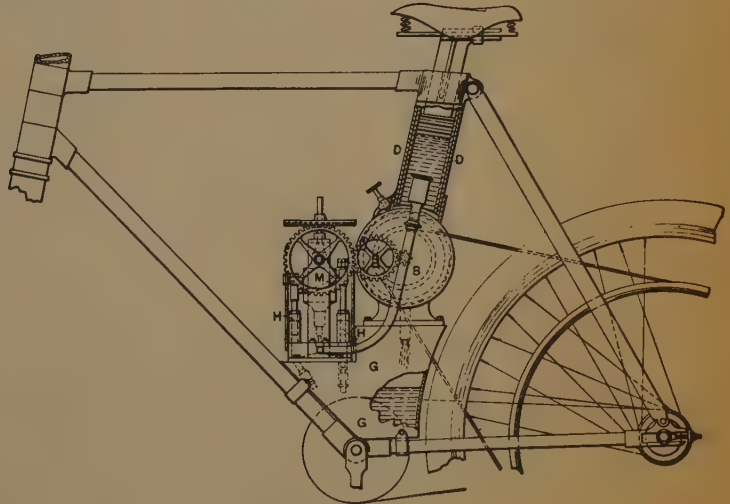


"This is the dog that bit the cat that killed the rat that ate the malt that came from the grain that Jack sowed." (Reproduced by permission of Punch)



Perpetual Motion Journal
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Laws of Form

The laws of form have finally been written! With a "Spencer Brown" transistorized power razor (a Twentieth Century model of Occam's razor). G. Spencer Brown cuts smoothly through two millennia of growth, of the most prolific and persistent of semantic weeds, presenting us with his superbly written Laws of Form. This Herculean task which now, in retrospect, is of profound simplicity rests on his discovery of the form of laws. Laws are not descriptions, they are commands, injunctions: "Do!" Thus, the first constructive proposition in this book (page 3) is the injunction: "Draw a distinction!" an exhortation to perform the primordial creative act.

After this, practically everything else follows smoothly: a rigorous foundation of arithmetic, of algebra, of logic, of a calculus of indications, intentions and desires; a rigorous development of laws of form, may they be of logical relations, of descriptions of the universe by physicists and cosmologists, or of functions of the nervous system which generates descriptions of the universe of which it is itself a part.

The ancient and primary mystery which still puzzled Ludwig Wittgenstein (*Tractatus Logico-Philosophicus*, A. J. Ayer (ed), Humanities Press, New York, 1961, 166 pp.), namely that the world we know is constructed in such a way as to be able to see itself, G. Spencer Brown resolves by a most surprising turn of perception. He shows, once and for all, that the appearance of this mystery is unavoidable. But what is unavoidable is, in one sense, no mystery. The fate of all descriptions is "... what is revealed will be concealed, but what is concealed will again be revealed."

At this point, even the most faithful reader may turn suspicious: how can the conception of such a simple injunction as "Draw a distinction!" produce this wealth of insights? It is indeed amazing—but, in fact, it does.

The clue to all this is Spencer Brown's ingenious choice for the notation of an operator \lrcorner which does several things at one time. This mark is a token for drawing a distinction, say, by drawing a circle on a sheet of paper which creates a distinction between points inside and outside of this circle; by its asymmetry (the concave side being its inside) it provides the possibility of indication; finally, it stands for an instruction to cross the boundary of the first distinction by crossing from the state indicated on the inside of the token to the state indicated by the token (A space with no token indicates the unmarked state). Moreover, these operations may operate on each other, generating a primary arithmetic, an opportunity which is denied us by a faulty notation in conventional arithmetic as pointed out by Karl Menger in "Gulliver in the Land without One, Two, Three" (*The Mathematical Gazette*, 53, 24-250; 1959).

Suggested by Steve Baer

We cannot escape the fact that the world we know is constructed in order (and thus in such a way as to be able) to see itself.

This is indeed amazing.

Not so much in view of what it sees, and at least one other state which is seen. In this severed and mutilated condition, whatever it sees is only partially itself. We may take it that the world undoubtedly is itself (i.e. is indistinct from itself), but, in any attempt to see itself as an object, it must, equally undoubtedly, act so as to make itself distinct from, and therefore false to, itself. In this condition it will always partially elude itself.

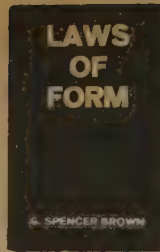
To explain, literally to lay out in a plane where particulars can be readily seen. Thus to place or plan in flat land, sacrificing other dimensions for the sake of appearance. Thus to expound or put out at the cost of ignoring the reality or richness of what is so put out. Thus to take a view away from its prime reality or royalty, or to gain knowledge and lose the kingdom.

* The Hero With A Thousand Faces

myths and man's dreamworld have, for the past fifty years or so, been the objects of various alchemical attempts at synthesis. about the time i get convinced that screaming green weenies have some larger context than madison avenue, someone else denies the organic connection between them. the hero with a thousand faces is one of those syntheses. its about the monomyth. campbell traces his hero right out into the void.

—jd

[Suggested by George & Laura]



Laws of Form
G. Spencer Brown
1969; 141 pp.

\$5.40 postpaid

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Broad Street
Oxford, ENGLAND

or WHOLE EARTH CATALOG

CONSTRUCTION
Draw a distinction.

CONTENT
Call it the first distinction.
Call the space in which it is drawn the space severed or cloven by the distinction.
Call the parts of the space shaped by the severance or cleft the sides of the distinction or, alternatively, the spaces, states, or contents distinguished by the distinction.

INTENT
Let any mark, token, or sign be taken in any way with or without regard to the distinction as a signal.
Call the use of any signal its intent.

In all mathematics it becomes apparent, at some stage, that we have for some time been following a rule without being consciously aware of the fact. This might be described as the use of a covert convention. A recognizable aspect of the advancement of mathematics consists in the advancement of the consciousness of what we are doing, whereby the covert becomes overt. Mathematics is in this respect psychedelic.

One of the most beautiful facts emerging from mathematical studies is this very potent relationship between the mathematical process and ordinary language. There seems to be no mathematical idea of any importance or profundity that is not mirrored, with an almost uncanny accuracy, in the common use of words, and this appears especially true when we consider words in their original, and sometimes long forgotten, senses.

The main difficulty in translating from the written to the verbal form comes from the fact that in mathematical writing we are free to mark the two dimensions of the plane, whereas in speech we can mark only the one dimension of time.

Much that is unnecessary and obstructive in mathematics today appears to be vestigial of this limitation of the spoken word.

Any evenly subverted equation of the second degree might be called, alternatively, evenly informed. We can see it over a subversion (turning under) of the surface upon which it is written, or alternatively, as an in-formation (formation within) of what it expresses.

Such an expression is thus informed in the sense of having its own form within it, and at the same time informed in the sense of remembering what has happened to it in the past.

We need not suppose that this is exactly how memory happens in an animal, but there are certainly memories, so-called, constructed this way in electronic computers, and engineers have constructed such in-formed memories with magnetic relays for the greater part of the present century.

We may perhaps look upon such memory, in this simplified information, as a precursor of the more complicated and varied forms of memory and information in man and the higher animals. We can also regard other manifestations of the classical forms of physical or biological science in the same spirit.

There is a tendency, especially today, to regard existence as the source of reality, and thus as a central concept. But as soon as it is formally examined (cf Appendix 2), existence [*ex* = out, *stare* = stand. Thus to exist may be considered as to stand outside, to be exiled.] is seen to be highly peripheral and, as such, especially corrupt (in the formal sense) and vulnerable. The concept of truth is more central, although still recognizably peripheral. If the weakness of present-day science is that it centres round existence, the weakness of present-day logic is that it centres round truth.

Throughout the essay, we find no need for the concept of truth, apart from two avoidable appearances (true = open to proof) in the descriptive context. At no point, to say the least, is it a necessary inhabitant of the calculating forms. These forms are thus not only precursors of existence, they are also precursors of truth.

It is, I am afraid, the intellectual block which most of us come up against at the points where, to experience the world clearly, we must abandon existence to truth, truth to indication, indication to form, and form to void, that has so held up the development of logic and its mathematics.

It is the business of mythology proper, and of the fairy tale, to reveal the specific dangers and techniques of the dark interior way from tragedy to comedy. Hence the incidents are fantastic and "unreal": they represent psychological, not physical, triumphs. Even when the legend is of an actual historical personage, the deeds of victory are rendered, not in lifelike, but in dreamlike figures; for the point is not that such-and-such could be done on earth, this other, more important, primary thing had to be brought to pass within the labyrinth that we all know and visit in our dreams. The passage of the mythological hero may be over-ground, incidentally; fundamentally it is inward—into depths where obscure resistances are overcome, and long lost, forgotten powers are revived, to be made available for the transfiguration of the world. This deed accomplished, life no longer suffers hopelessly under the terrible mutilations of ubiquitous disaster, battered by time, hideous throughout space; but with its horror visible still, its cries of anguish still tumultuous, it becomes penetrated by an all-suffusing, all-sustaining love, and a knowledge of its own unconquered power. Something of the light that blazes invisible within the abysses of its normally opaque materiality breaks forth, with an increasing uproar. The dreadful mutilations are then seen as shadows, only, of an immanent, imperishable eternity; time yields to glory; and the world sings with the prodigious, angelic, but perhaps finally monotonous, siren music of the spheres. Like happy families, the myths and the worlds redeemed are all alike.

Parable of the Beast

if you are into molecular memory, chemical communication, slime mold colonies, time pulse perception, third eyes, acid, serotonin, intramural aggression, and other types of metamysticism, then bleibtreu probably has something for you, too.

he's trying to put instincts back into science and take a little of the speculation out of the name "Homo sapiens", through an introduction to the study of ethology. readable, maybe reliable.

[Reviewed by J.D. Smith. Suggested by David Schwartz]

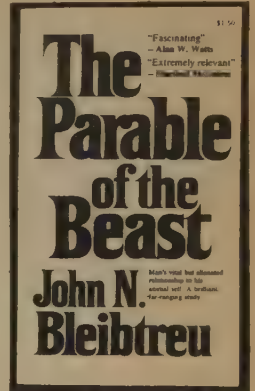
The Parable of the Beast

John N. Bleibtreu
1968; 304 pp.

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866 Third Avenue
New York, New York 10022

or WHOLE EARTH CATALOG



It seems now in retrospect that any naturalist would have realized long ago that by referring to time, to the position of the planets, the moon and the sun, animals might most easily orient themselves in space. Unlike human beings, most animals inhabit either a barren or unstable landscape—to fish in the sea, birds migrating high in the nighttime sky the landscape is barren. For all practical purposes they inhabit "pure" space, empty space. Those euclidean points of reference by which we large mammals ordinarily locate ourselves are not available to them. Many insects confront a similar problem in orienting themselves; their landscape is unstable—a puff of wind, the footprint of a larger animal, can utterly destroy the familiarity, and therefore, the usefulness of landmarks. Some stable reference system which these creatures could employ must be imagined. And what more stable system than time, that innate sense of planetary cycles with which all living organisms were provided from the beginning? Yet it has been so long since man made use of such a system innately, that it has quite literally slipped his mind. Seamen and aviators, when confronted with this same kind of barren landscape, must resort to a similar system of time orientation in space, but since this kind of time consciousness is no longer innate, human navigators must be provided with elaborate star charts, moon and sun tables, sextants, chronometers, and all manner of paraphernalia so that reason can operate in those areas where "instinct" has atrophied.

In every human society the act of communal eating has social implications far more important than the simple act of satisfying individual hunger. Of course it is easier to prepare food for several people to eat simultaneously. But there is more to the act of social food sharing acts than that. In most primitive societies the sharing of food acts as an aggression suppressor. It is considered an unseemly act to attack one's dinner partner, regardless of the provocation. The fact that food sharing enhances the possibility of creating intimate relationships is well understood by businessmen, fund raisers, politicians, et al. Family gatherings are far more meaningful if the gathering takes place around a dining table. All ceremonies are made more intimate by food sharing, and when a ceremony excludes the sharing of food, it is likely to be formal and the participants isolated from one another.

In many cultures, including our own, the more ceremonial the meal the more divorced it is from simple needs of nourishment, the more likely it will be that a behavior-altering chemical will be served with the food. This may be wine of some kind, or in cultures such as Islam, which forbid alcohol, another kind of chemical intoxicant. Even tea and coffee are stimulants, and must be considered in this category of behavior-altering chemicals. If the purpose of the ceremony is aimed at conviviality rather than intimacy, the chemical agent is stressed rather than the food particle. But even at the modern cocktail party, where the alcohol is far more important than the food, there is still a token food offering made for the ritual sake of making a harmonious combination of these associated acts. Among tobacco smokers, smoking may be a substitute for food exchange, and the offering of a smoke is well understood in all tobacco-using cultures as a gesture of intimacy.

THE HERO



The Hero With A Thousand Faces
Joseph Campbell
1949, 1970; 416 pp.

\$3.95 postpaid

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2231 West 110th Street
Cleveland, Ohio 44102

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Gary Snyder



21 August

Oiling and stowing the tools. (artifact / tools: now there's a topic.)

When a storm blows in, covering the south wall with rain and blotting out the mountains. Ridges look new in every light. Still discovering new conformations—every cony has an ancestry but the rocks were just here.

Structure in the lithosphere / cycles of change in rock / only the smallest percentage sanded and powdered and mixed with life-derived elements.

Is chemical reaction a type of perception??—Running through all things motion and reacting, object against object / there is more than enough time for all things to happen: swallowing its own tail.

[Earth House Hold]

REVOLUTION IN THE REVOLUTION IN THE REVOLUTION

The country surrounds the city
The back country surrounds the country

"From the masses to the masses" the most
Revolutionary consciousness is to be found
Among the most ruthlessly exploited classes:
Animals, trees, water, air, grasses

We must pass through the stage of the
"Dictatorship of the Unconscious" before we can
Hope for the withering-away of the states
And finally arrive at true Communionism.



If the capitalists and imperialists
are the exploiters, the masses are the workers.
and the party
is the communist.

If civilization
is the exploiter, the masses is nature.
and the party
is the poets.

If the abstract rational intellect
is the exploiter, the masses is the unconscious.
and the party
is the yogins.

& POWER
comes out of the seed-syllables of mantras.

[Regarding Wave]

TO THE CHINESE COMRADES

The armies of China and Russia
Stand facing across a wide plain.
Krushev on one side and Mao on the other,
Krushev calls out

"Pay me the money you owe me!"
Mao laughs and laughs, long hair flops.
His face round and smooth.
The armies start marching — they meet —
Without clashing, they march through each other,
Lines between lines.
All the time Mao Tse-tung laughing.
He takes heaps of money.
He laughs and he gives it to Krushchev.

Chairman Mao's belongings on the March :

"Two cotton and wool mixture blankets,
A sheet, two pants and jackets,
A sweater
A patched umbrella
An enamel mug for a rice bowl
A gray brief-case with nine pockets."

Like Han-shan standing there

— a rubbing off some cliff
Hair sticking out smiling
maybe rolling a homegrown
Yenan cigarette
Took a crack at politics
The world is all one.
— crawling out that hillside cave dirt house —

(whatever happened to Wong —
quit Chinese school, slugged his dad
left the laundry, went to sea
out the golden gate — did he make AB? —)

black eggshell-thin
pots of Lung-shan
maybe three thousand years BC

You have killed
I saw the Tibetans just down from the passes
Limping in high felt boots
Sweating in furs
Flatland heat.

and from Almora gazing at Trisul
the new maps from Peking
call it all China
clear down to here, & the Gangetic plain —

From Hongkong N.T. on a pine rise
See the other side: stub fields.
Geese, ducks, and children
far off cries.

Down the river, tiny men
Walk a plank — maybe loading
little river boat.

Is that China
Flat, brown, and wide?

The ancestors
what did they leave us.
K'ung fu-tze, some buildings, remain.
— tons of soil gone.
Mountains turn desert.
Stone crotpt flood, strippt hills,
The useless wandering river mouths,
Salt swamps
Silt on the floor of the sea.

SONG OF THE TASTE

Eating the living germs of grasses
Eating the ova of large birds

the fleshy sweetness packed
around the sperm of swaying trees

The muscles of the flanks and thighs of
soft-voiced cows
the bounce in the lamb's leap
the swish in the ox's tail

Eating roots grown swoll
inside the soil

Drawing on life of living
clustered points of light spun
out of space
hidden in the grape.

Eating each other's seed
eating
ah, each other.

Kissing the lover in the mouth of bread:
lip to lip.

Wind-borne glacial flour —
Ice-age of Europe,
Dust storms from Ordos to Finland
The loess of Yenan.
glaciers
"shrink
and vanish like summer clouds . . ."

CROSS THE SNOWY MOUNTAIN
WE SHALL SEE CHAIRMAN MAO!

The year the long march started I was four.
How long has this gone on.
Rivers to wade, mountains to cross —
Chas. Leong showed me how to hold my chopsticks
like the brush —

Upstairs a chinese restaurant catty-corner
from the police
Portland, oregon, nineteen fifty-one,
Yakima Indian horseman, hair black as crows.
shovel shaped incisors,
epicanthic fold.

Misty peaks and cliffs of the Columbia,
Old loggers vanish in the rocks.
They wouldn't tote me rice and soy-sauce
cross the dam

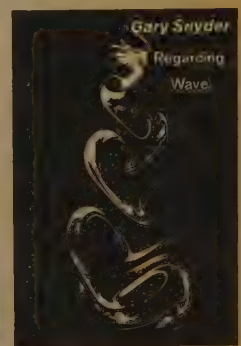
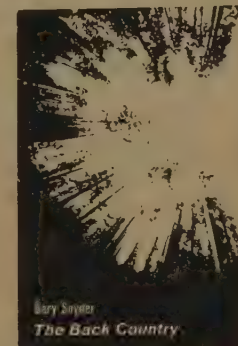
"Snyder you gettin just like
a damned Chinaman."
Gambling with the Wasco and the Wishram
By the river under Hee Hee Butte
& bought a hard round loaf of weird bread
From a bakery in a tent
In a camp of Tibetans
At Bodh-Gaya
Where Gautama used to stay.

On hearing Joan Baez singing "East Virginia"
Those were the days.
we strolld under blossoming cherries
ten acres of orchard
holding hands, kissing,
in the evening talkt Lenin and Marx.
You had just started out for Beijing.

I slippt my hand under her blouse
and undid her brassiere.
I passt my hand over her breasts
her sweet breath, it was too warm for May.
I thought how the whole world
my love, could love like this;
blossoms, the books, revolution
more trees, strong girls, clear springs:
You took Beijing

Chairman Mao, you should quit smoking.
Dont bother those philosophers
Build dams, plant trees,
dont kill flies by hand.
Marx was another westerner.
it's all in the head.
You dont need the bomb.
stick to farming.
Write some poems. Swim the river.
those blue overalls are great.
Dont shoot me, let's go drinking.
just
Wait.

[The Back Country]



The Back Country (\$1.25)
Regarding Wave \$1.75;
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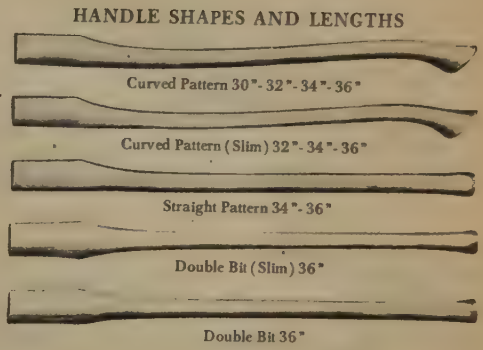
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[suggested by Sally Mathay]

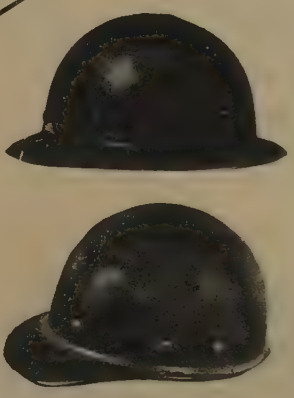
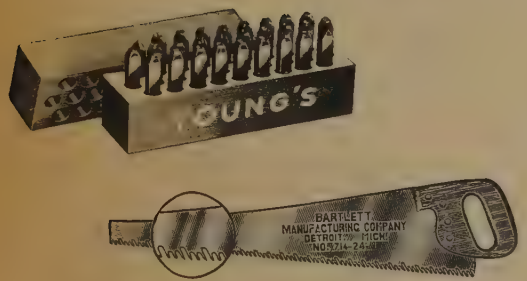
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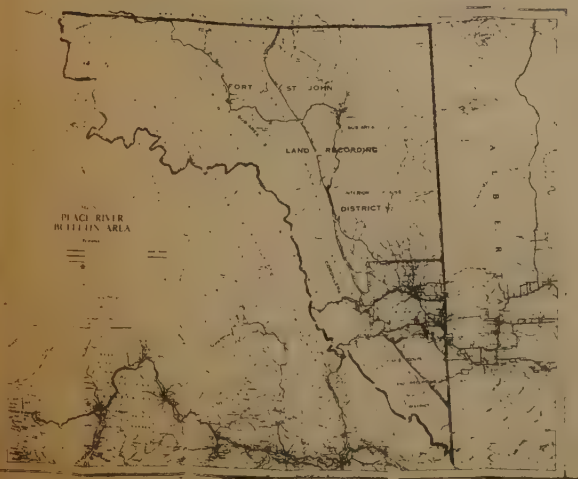


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★
British Columbia Land Bulletins
other provinces may have this service too,
i don't know
but british columbia prints a series of bulletins that are as convincingly detailed as any geographic material available,
so,
if you can get past the immigration hassles.
(there is a border up there)
and want to windowshop wetdream about the wilderness,
here's the goods.
 —jd

Bulletins for Areas 1 through 10 free

from:
 Province of British Columbia Lands Service
 Department of Lands, Forests, and Water Resources
 Victoria, B.C. Canada



Domebook One

A book (the first) for domebuilders, with detailed step-by-step instructions on building 7 different type domes, most of them geodesic.

A portion of the book describes domes built as part of the curriculum at an experimental high school, several of the structures built almost entirely by 15-17 year olds.

There are both simple and detailed explanations of geodesic geometry, exterior photos of the different domes, interior fisheye photos, and sketches of details.

Geodesic chord factors (constants that allow you to calculate strut lengths for different size domes) are published here for the first time—up to 6 frequency for "alternate breakdown," to 8 frequency for "triacon breakdown."

The nature of the dome designs is experimental; the purpose of the book is to communicate the builders' experience; the hope of the writers is to initiate individual dome building, innovations, & prototypes.

[The above is Lloyd trying to review his own book. He's hopelessly modest. If you're doming, the book is simply necessary. —SB]



Plywood Domes

We have built seven domes like this in about three months' time. Most of those on our building crew were 15-17 years old.

We used pipe-section hubs and stainless steel straps for the framework—a method first used by Fletcher Pence in the Virgin Islands about ten years ago. The skeleton framework is first strapped into place, a membrane is then attached, and joints are waterproofed.

We used 2 x 3's for the skeleton, 3/8" Duraply plywood for skin, clear ultra-violet resistant vinyl in geometric patterns for light, polyurethane caulk for sealing joints, and other ingredients listed below. The entire dome—struts and skin—will fit in a 3/4 ton pickup truck.



VITAL STATISTICS—Pacific Dome

Geometry: 3-frequency geodesic, 5/8 sphere, icoso-alternate breakdown, vertex zenith

Diameter: 24'

Weight (not including floor) 2050 lbs

Volume: about 4400 cubic feet

Floor area: (not including lofts) 452 sq ft

Note: volume is a far better measure of living space, especially in a dome, as you'll not be confined to the floor area.

DOME INGREDIENTS

- 12 pieces 4' x 7' plywood for small triangles
- 24 pieces 4' x 8' plywood for large triangles
- 6 pieces 4' x 9' plywood for extra-large triangles
- about 750 lineal feet 2 x 3's for struts (of 8' and 10' lengths). Figure the proper number of each to order.
- 61 hubs, cut from sections of pipe
- about 500' stainless steel strap, about 400 stainless steel buckles
- about 20 lbs 4d or 6d hot dip galvanized nails
- quantity of window material up to you
- 12 tubes of caulk
- 2 1/2 gallons primer, 2 1/2 gallons finish coat paint
- misc. materials for vent, door etc.
- floor materials not included

Total Cost: \$929.00



Table of struts: make a large, clear copy of this and post by the saw.

Strut	Number to cut	Length, using 3/8" diameter hubs*	Axial Angle both ends	Angle at which you set radial saw
A	30	46 11/16"	90°	10°
B	86	54 5/8"	78°	12°
C	80	55 7/8"	78°	42°

*Strut lengths here are based upon 3 1/2" diameter hubs. If you use different size hubs, calculate strut length from chord factors on page and subtract hub diameter



Angle: use an adjustable protractor to double check the saw's gauge. Hold it against fence, pull blade out and check to see that blade parallels protractor.
Length: tape measures are made to hook over a piece of wood. For greater accuracy use the 1" line on the tape measure and line it up with inside of saw blade. Add 1" to total measurement when setting stop. V-mark stop and table and check the stop for slipping periodically while sawing.
Make sure table and fence are made of clear straight wood. Close one eye and sight down the fence.

Domebook One

1970; 56 pp.

\$3.00 postpaid

5 or more \$2.25 each

from:
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or WHOLE EARTH CATALOG
(except quantity orders)

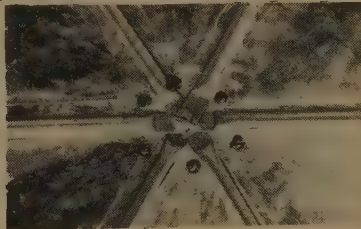
Tube Frame Domes

THE FRAME

Any suitably strong tubing can be used, but the cheapest and easiest to get is "EMT" electrical conduit. It is easy to work with and is plated, so painting isn't necessary. 1/2" is not suitable for any domes that will be subjected to heavy weather conditions, but it is useful for indoor structures and small (up to 14 feet diameter) domes. 3/4" conduit will bend if climbed on. 3/4" is best for most uses. It wholesales for about 9¢/ft. Using the chord factors, you can use 3/4" conduit in triangles whose sides are up to 4 1/2 feet long. 4 feet is maximum where there will be snow loads. This will result in about a 24 foot maximum diameter in 3-frequency. For larger domes you will need bigger tubes or a higher frequency. Bigger tubes are hard to squash! Think first.

Cutting

The tubes should be cut according to the chord factors plus 1/4". The chord factor gives the "center-of-hole to center-of-hole" length, and there must be about 1/4" beyond the holes. Conduit comes in ten foot lengths. You get two struts from each length for making domes up to about 24 feet diameter.



Squashing

Flatten the tube tips 2 1/4" from the ends, by squeezing them in a vise. A big vise. Small "home workshop" vises will break.



Miscellaneous Ideas

Completely transparent dome with pop-in insulating panels. Adjust dome to the season, change light patterns to block or admit sunlight, view different parts of landscape.

Hang a swing in your dome for quick passage from one side to another.

Aluminum and galvanized steel can be used as skins for domes. Aluminum doesn't have to be painted, will last about 25 years (near the ocean it should be anodized), and is soft. Galvanized steel has to be painted and is stiff.

You can use thin metal if you spray the inside of the dome with foam. The panels should be sprayed from the inside with automobile undercoating or something like it to keep the dome from booming.

With a metal skin and a wood frame the panels can be shingled. Cut the panels an inch or two larger than the actual size of the triangles (Then when the panels are attached to the frame they overlap. See metal tube domes). For sealing you put a strip of vinyl foam or tape caulk over the struts before attaching the panels. The panels can be stapled to the frame. You should use a staple gun that makes the staples curve outward. For thick metal you can rent an air stapler.

Models are essential. Don't try to build a dome without first making and studying models. However, don't get so involved with models that you never try a real structure.

STRUT MODELS

These are models of the structural framework of a dome, made with 1/8" dowels and "D-Stix" rubber connectors. You can get the connectors from Edmund Scientific Co., 100 Edscorp Building, Barrington, N. J. 08007. Dowels can be obtained at a hobby shop (they are used by model airplane hobbyists) or you can buy one of the D-Stix kits from Edmund, with colored dowels.

Making a 3-Frequency Sphere

Your first model should be a sphere, since a dome is a portion of a sphere. You can then determine where to cut it off, how to orient it to the earth, and see the relationship of a geodesic sphere to the icosahedron.

Important note: when figuring the length of model struts, be sure you subtract for the length of the connector. In the following table, this has been done.

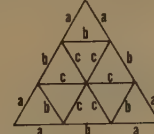
Here are calculations for a 3-frequency sphere. Check these out yourself before cutting, using chord factors below. For ease in multiplying chord factors, the metric system is preferable. Remember to adjust for connector.

Strut	Chord Factor	Length of Strut	Color Code	Make this Many
A	.3486	3 23/32"	Red	60
B	.4035	4 13/32"	Blue	90
C	.4124	4 1/2"	Yellow	120

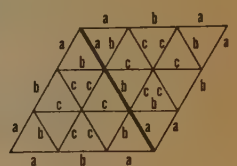
Putting it Together

You are actually making a spherical icosahedron, with its 20 faces subdivided into smaller triangles. Red struts outline vertices of icosahedron.

Put together one face:



Then add another:



and continue until you have 20 of these subdivided triangles. It will be clearer with colors than it looks above.

Layout 4 x 8 panels on the floor plan of your intended dome in a pattern that makes sense. Remember if you are using 1 1/8" plywood to keep the tongue and grooves meshing properly. See if you can do it in a way that the cut off plywood ends can be overturned and used upside down at the other side of the dome to fill in the empty spaces. Also, if possible, arrange things so a whole 4 x 8 will bridge the beam nest over the center pier, as shown. Scrap A is turned over and used at B, locating edge P as shown in Fig. 1. For a 20' dome this can mean that you can make the platform from only 11 sheets! (see drawing). Also, space the plywood so that the edges arrive over beams in the strongest manner. If it all works out well, you will save wood and piers.

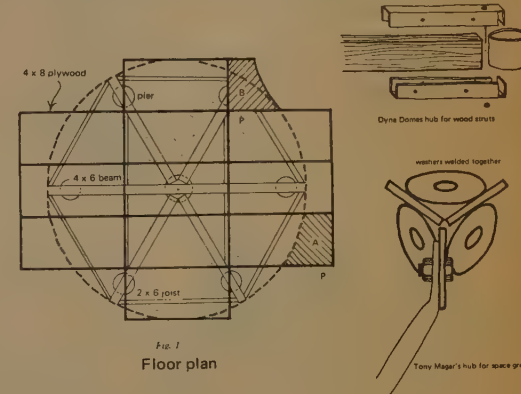


Fig. 1
Floor plan

Insulation is 1 1/8" polystyrene ("styrofoam"). This is the white you see on the interiors of the plywood domes. You must get fire resistant foam, as fires are going to burn very efficiently in domes.

The foam is pure white, granular, and combined with the wood struts, gives the dome a half-timbered look. It feels more wooden than plastic.

It's put in with three small nails per triangle.

DOMEBOOK TWO

is now being gathered for. if you have any help, get in touch with

Lloyd Kahn
Pacific Domes
Box 1692
Los Gatos, California 95030

Dome Cookbook

A new art form is evolving in the southwest desert. Multi-colored cartop domes, put together with whatever's lying around. Free heat from the sun. Behind much of the innovating stands Steve Baer, a young inventor who generates enough energy to get others moving too.

This tabloid contains the crystallographic theory and junkyard practice behind Baer's domes: from how to distort a polyhedron without affecting connector angles to how to chop the top out of a car without losing your foot. From all we can determine, Baer's theory is unique in architecture. So is his practice; instead of dying of dissertation dry rot, his notions stand around in the world bugging the citizens.

The Dome Cookbook, now in its third printing, is published by Lama Foundation, an experimental community in New Mexico.

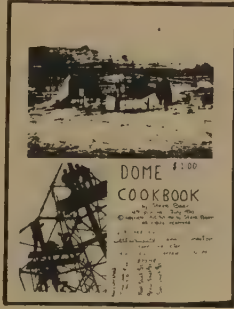
-SB

Dome Cookbook
Steve Baer
1968; 40 pp.

\$1.00 postpaid

from:
Lama/Cookbook Fund
P.O. Box 422
Corrales, N.M. 87048

or WHOLE EARTH CATALOG

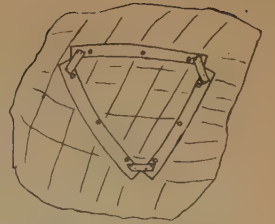


When you are putting up a dome panel by panel you often have to use poles to support the wobbly sides as they close in toward the center. When we were putting up the second to last panel in the shop dome we had three poles in strategic spots to hold the wobbly overhanging panels from collapsing. The poles were nailed at the top so they wouldn't fall away if during a moment's strain the load were lifted up and off of them. The panel was an 8' by 19' and extremely heavy. We put it up with an inadequate crew, two men and two women. We struggled for an entire afternoon the last few inches Albert Mahler pushed from on top of a spool resting on top of the cab of his pickup which we had driven into the dome. It was touch and go, a clamp might slip, Albert might collapse, the poles might buckle. Each one of many failures seemed equally as probable as getting the monster joined to the neighboring panels. A huge shove, some quick work with the crow bar and clamps—Albert eased off and it still held, I took a few more turns on one clamp and added another one—it was a sure thing, we had it in place!

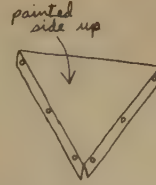
I felt as if the panel had been lifted into place by some incredible wave we had created that now washed back as we put down tools and Albert got down off the cab. But there was one last thing to check—the poles, were they dangerously bowed under this new load. The entire sensation in my head began for a moment to turn inside out when Holly yelled "look at them" but then I saw what it was—the dome was finding its shape, it had lifted all three heavy poles off the floor, they were hanging from where they had been toe nailed at their tops, swaying slowly. Three important pillars transformed in one moment into three dangling slow swinging pendulums.



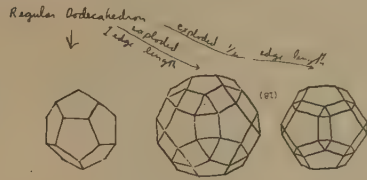
panel cut and drilled



flexible plywood pattern on can top



panel cut, drilled and broken



Zome Primer

investigations of the thirty-one zone star, and the transfer from idea to structure, through divine proportion. zome aum

-jd

Zome Primer
Steve Baer
1970; 35 pp.

\$3.00 postpaid

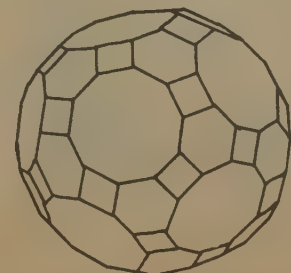
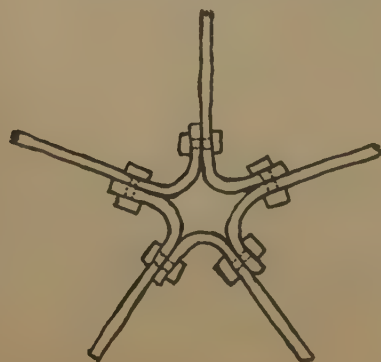
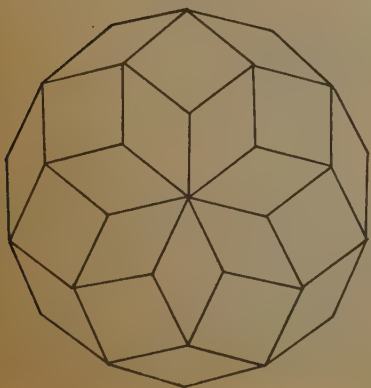
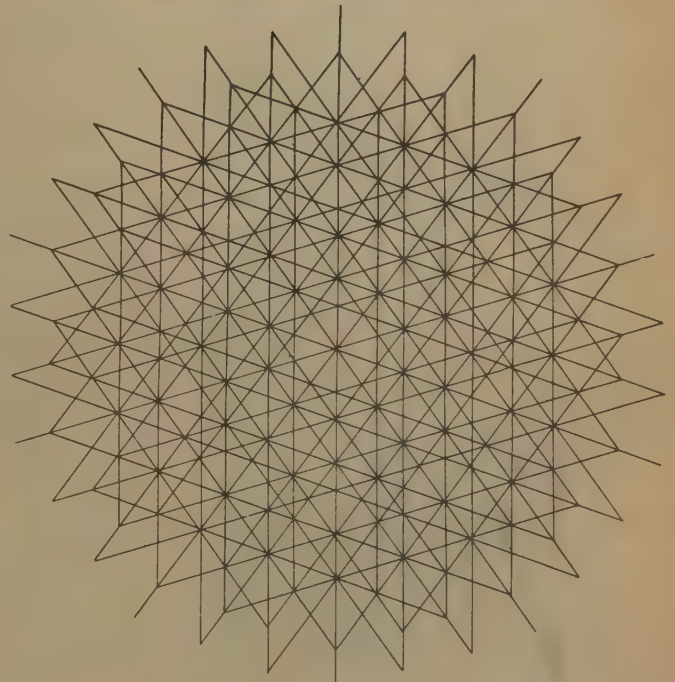
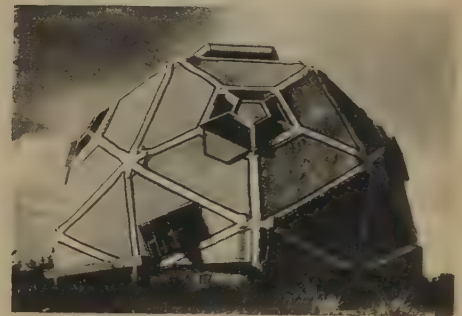
from:
Zomeworks Corp.
P.O. Box 712
Albuquerque, New Mexico 87103

or WHOLE EARTH CATALOG



What is the Difference Between a Zome and a Geodesic Dome ?

A geodesic dome is a structure which closely follows the shape of the sphere and whose edge lengths closely follow the path of great circles on the sphere. (These are the sphere's geodesics.) The geodesic dome, because of its shape and the arrangement of its structural members is extremely strong, but its uses are limited because of the inflexibility of its shape. It is always part of a sphere - a low bubble or a high bubble - its floor is always a circle - any variation would destroy the structural properties of the geodesic dome. The geodesic dome, if it is large and composed of many edges and joints, has many different edge lengths. It is complicated in structure and simple in shape. Zomes are simple in structure and complicated in shape.



Architectural Design

...this is much more than an architectural magazine...

-SB



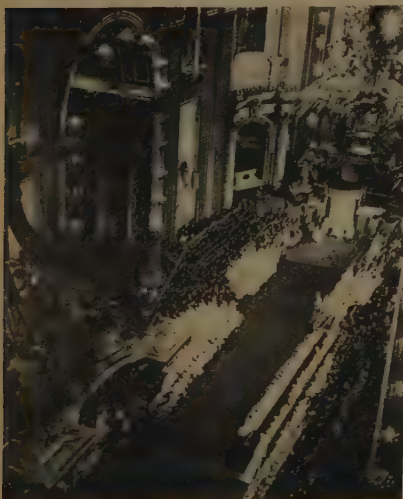
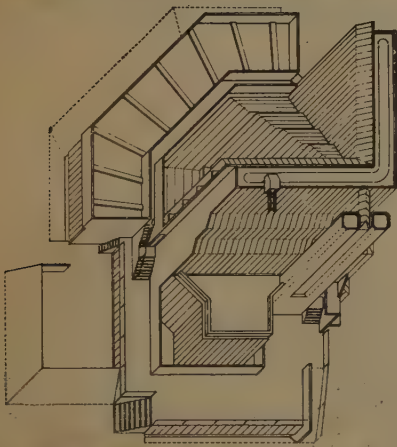
Architectural Design

\$13.50 postpaid per year (monthly)

from:
Architectural Design
26 Bloomsbury Way
London W. C. 1 ENGLAND



SOFT ARCHITECTURE



Geodesics

This is the first book wholly devoted to geodesics. Good text, clear drawings, introductory text on the basic principles of Fuller's geodesic domes.

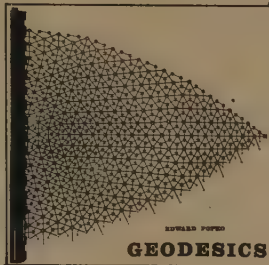
Shown are domes of wood, metal and plastic, most of them produced industrially; along with the various domes are detailed sections of hubs, construction methods, and assembly sequences.

The brief text discusses

- polyhedra
- orientation
- breakdown
- frequency
- base truncation
- chord factors (the constants necessary for calculation of different diameter domes).

-SB

[Suggested by Onyx]

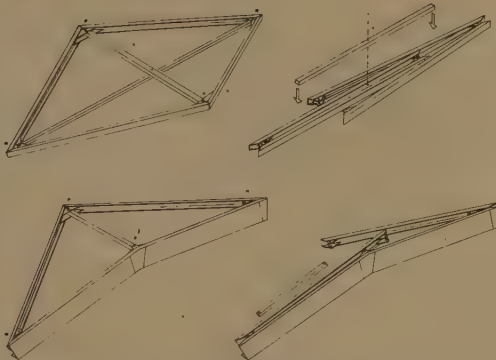


Geodesics
Edward Popko
1968; 124 pp.

\$4.00 postpaid

from:
University of Detroit Press
4001 West McNichols Road
Detroit, Michigan 48221

or WHOLE EARTH CATALOG



Diamond packaging sequence, an ingenious pin and hinge system allows diamond components to partially disassemble reducing packagin volume, typical diamond and base support shown. A Fuller Research Foundation Project.

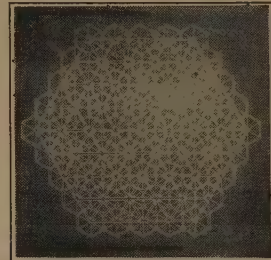
Space Grid Structures

A space grid is a means of spanning great distances with little weight, and a few immediate supports. Buckminster Fuller's Octetruuss at the Museum of Modern Art in 1959 was 35' wide and spanned 60' one way, 40' another from one column of supports. It was fabricated of 2" pipe.

Space grids consist of two parallel planes, forming a floor and ceiling; "web" members in between connect them in such a way that external loads are distributed in all directions.

This book is "... an exchange of information about what has been done recently in the development of flat space grid structures." There are photos, drawings, models of structures and joints. The three sections of the book deal with flat double-layer space grid structures, stressed-skin space grids, and fine clear drawings of space grid geometries. Also an extensive bibliography. Very little text; it's not needed as the drawings and photos are excellent.

-SB

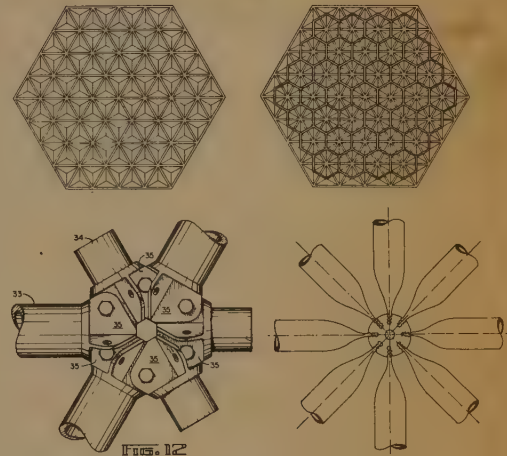


Space Grid Structures
John Borrego
1968; 200 pp.

\$12.50 postpaid

from:
The M. I. T. Press
Room 765
50 Ames Street
Cambridge, Massachusetts 02142

or WHOLE EARTH CATALOG



*** Domecile Kit**

The **DOMECILE KIT** is the logical next step after the dome books. It is not a particularly necessary next step if you feel comfortable about designing and building scale models from cardboard or balsa. On the other hand, if you have ever marveled at the clean, neat, scale models seen at exhibits, and wondered how such model building skills were acquired, or whether you could ever build comparable models, then you should consider the **DOMECILE KIT**. With the help of the **KIT** you can quickly invent an unlimited number of unique structures without having to be a geometry wizard or surgeon with a hobby knife. You can create the model dome of your dreams and then realize why it is a nightmare. This realization could be painful if you had first taken the time to carefully cut your own forms.

The **DOMECILE KIT** consists of 60 die-cut plastic templates, spare sheets of clear and opaque plastic paneling and the re-usable tape. Included are instruction sheets describing how to build models, structures; illustrations of the 5 regular polyhedra and 13 Archemedian polyhedra; a discussion about building techniques for full-size structures; and references to useful books and materials.

All in all, it is a very helpful way to begin planning your next dwelling and learning much about domes, geometry, materials, environment and self.

[Reviewed by Mitchell Zucker]

Domecile Kit

\$10.00 postpaid

from:
Domecile Company
P. O. Box 954
Mendocino, California 95460



Wildcrafters Publications

water witching
fishing tips
snow gab
future famine
nut trees
mountainmen
antique barb wire
flour mills
board warping.
a back to the sticks whole earth catalog,
written by the folks who read it.

-jd

Homesteaders and Landcrafters Newsletter \$35

The Wildcrafters World \$1.00

Back to the Sticks \$1.00

from:
Wildcrafters Publications
Lawrence Barcus
R.R. 3
Box 118
Rockville, Indiana 47872

ELECTRIC FRY PAN FOR INCUBATOR

Last spring a nearby farmer was mowing the brush in an old field on his farm. Too late he saw a hen pheasant on a nest. The hen was killed and some of the eggs smashed. He took the eggs to the house and called me on the phone. Did I know anyone that had a "setting hen" to hatch the eggs? I couldn't help him on that, but I told him to take the electric fry pan, put a towel in the bottom, dampen it by sprinkling water on it and set the eggs in, place the cover on, plug the cord in, turn the dial to warm and just once in awhile for the next few days, sprinkle the towel and eggs again. He did this and in a little over a week, seven chicks hatched. Caution, do not let children open the lid to peek, keep a low, steady heat.

SALE OF TIMBER

If you own farm or country property with a woodlot on it, or a tract of land or large parcel on the mountain in timber country, use caution if someone comes along and wants to make a deal to cut the logs or pulpwood. Talk to your area Forest Ranger or County Agent. You can be guided by what they tell you. Also have a deposit and a contract from the lumberman. Keep in mind that it takes a lifetime to grow a logging tree, and you don't want to be cheated. We used to figure that it took 70 years for decent growth of spruce to mature. Of course, pulpwood is cut in smaller growth, large pulpwood bolts have to be split. I know of one woodlot owner that was offered \$900 for the timber rights of the entire stand on his woodlot. He checked with the Forest Ranger who told him that did not seem like enough money. He gave him the name of a Timber Cruiser, the cost was not great, but the final agreement on the cutting operation was \$2,800.00 I know of several other cases, but this is enough to give you an idea not to be hasty in making a deal to sell your timber. You might be given an offer that seems like a lot of money, but check into it.

TO BURY TOOLS, ETC.

I WOULD like to say to the gentleman that was discussing how to bury various items in a recent issue, that you need not put oil in the container around the tools, all that is necessary is to seal them until the air can't get to them, it is the moisture in the air that rusts anything. For example take a new outboard motor, drop it in a lake in five years go back, get it out, it will be like it was brand new, but it will rust in minutes if not bathed in oil. I would say the best way to bury small items like knives would be to put them in mason jars, seal them and put a small piece of tarpaulin over the lid to keep the dirt off to prevent rusting.

YOUR EDITOR feels that the above letter should be thought about by the city dwellers who may be vulnerable to "hard times." The time to get out of the city onto a plot of ground may be NOW. Even poor ground may be better than no ground at all.

Ashley Thermostatic Wood Burning Circulator

This is a unique wood burning stove. It has a thermostat which controls air intake, thereby burns much less wood than an ordinary stove. Will go up to 12 hours without refueling. In cold climates people build just one fire a season, adding wood 2-3 times a day. It takes any type wood, up to two feet long.

One kept us warm when we lived in a chicken coop with cold concrete floors and now an Ashley is the only heat we have in a 900 sq. ft. house with high ceilings.

The firebox is airtight and there is a lever on the air intake you can set for the desired temperature. A temperature-sensitive device (bi-metal helix coil) then automatically regulates air flow to keep heat at the setting you've chosen.

-LK



\$80 - 100 plus shipping for different sizes of the "economy line: (Prices lower the closer you are to the factory in Alabama)

from:
Ashley Automatic Heater Company
P. O. Box 730
Sheffield, Alabama 35660

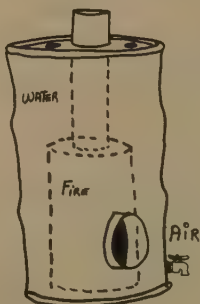
or
Ashley Spark Distributors, Inc.
710 N.W. 14th Avenue
Portland, Oregon 97209

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Wood Burning Water Heater

made from two 16 gauge steel drums designed to burn wood, handmade, claims a 30 minute burn will heat 53 gallons of water from 68 degrees to 140 degrees.

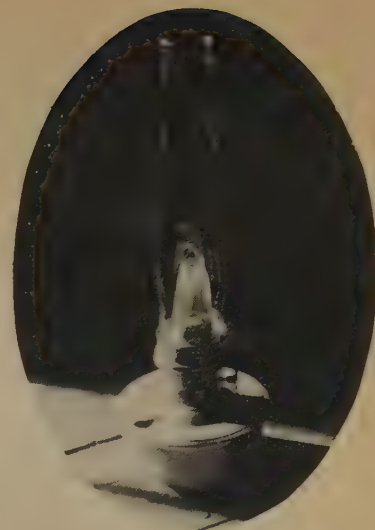
-jd



\$65.00 delivered in California

Higher out of state.

Contact:
The Earth-Bird Works
P.O. Box 954
Mendocino, California 95460



Aladdin Kerosene Lamps

Coleman lamps are terrible—they hiss and clank and blind you, just like civilization.

Aladdin is the answer if you need good light and 117ac isn't around. It is bright, silent, and requires no pumping. (It does require some babying to keep the mantle from smoking up; it's like not burning toast.)

British made and effectively designed, the lamps are available in this country from:

Aladdin Industries, Inc.
Kerosene Lamp Division
Nashville, Tennessee 37210

or WHOLE EARTH CATALOG

Some of the Aladdins are rather ornamental. The simplest designs are:

- B-165 Font Lamp (aluminum, w/o base) \$22.95 shipping weight 2.5 lbs.
- B-140 Table Lamp (with base) \$23.95 shipping weight 2.7 lbs.
- and B-223 Hanging Lamp \$28.95 shipping weight 3.5 lbs., shade extra

Parts:

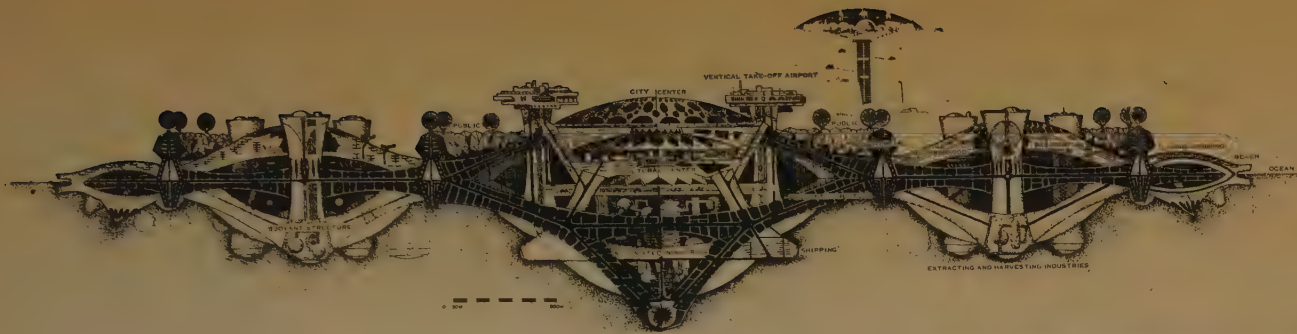
- N-6400 White shade \$3.95
- N-103 Chimney \$2.40
- N-150 Mantle \$.98
- N-198 Wick \$.98



Aladdin Lamps

Through the Whole Earth Catalog I was recently turned on to Aladdin Kerosene Lamps, and am now using mine in my cabin in the Colorado Rockies. For those seeking an alternative to the ELECTRIC SOCIETY, the Aladdin is without equal, producing a soft 100 watt light. In return for your turn-on, I have obtained a dealership from the Aladdin people, and can turn people on to them at a 30% DISCOUNT. I hope that you will be able to place this information in your publication.

OM SHANTI,
Gordon Williams
Ward Star Store
Ward Star Route
Jamestown, Colorado 80455

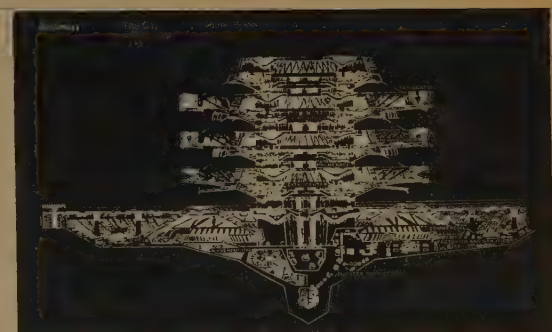
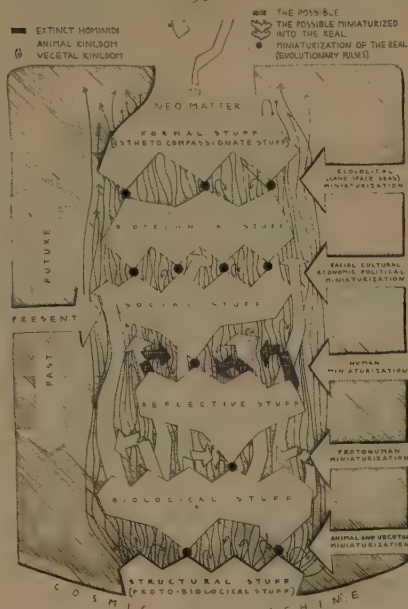


Novanoh I, floating city for 40,000

Arcology

If I get it right [and getting it at all is something: it takes either lots of work or none at all] Soleri sees the next step in evolution as man's job. He sees that step manifested in an organism and that organism is the city. Soleri says that the first part of his book is the most important. But on seeing the second part it's very difficult to muster much time for the first part. It pays, though, nicely. Soleri refers to Teilhard de Chardin in approaching the understanding of man as a cosmic problem by ascending from physics, chemistry, biology and geology. Western man must rise from his technology and one (I think) way is by being aware (of it) but ignoring it at the same time. The manifestation of a process like this is, I think, a series of drawings like that of the second part of the book. These drawings are like doorways, they're of fantastic cities, wholly improbably but obviously, cosmically, possible. In fact, they are made real just by their presence in one place (the book) and by the interrelatedness of one project to the next, page to page, with seminal sketches appearing in the corners here and there. What's most fascinating is the next obvious steps: the Cosanti buildings in Arizona and Arcosanti, about to begin. He's not starting all at once, big money style but the way cities have always started: little by little. Like Nieuw Amsterdam on the tip of Manhattan Island or whatever city began at whatever the river crossing or natural harbor, Soleri is beginning at a crossing of cosmic consciousness.

[Reviewed by Ron Williams]



Arcology: The City in the Image of Man
Paolo Soleri
1969; 121 pp.

\$25.00 postpaid

from:
The Cosanti Foundation
6433 Doubletree Ranch Road
Scottsdale, Arizona 85253

or

The M. I. T. Press
50 Ames Street, Room 765
Cambridge, Massachusetts 02142

or WHOLE EARTH CATALOG

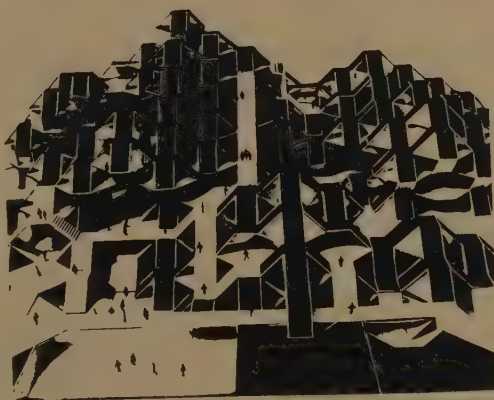
★ **Beyond Habitat**

We've carried Buckminster Fuller, Paolo Soleri, and Christopher Alexander, so here's Moshe Safdie's first book. His first project, Habitat, was a major attraction at Expo '67 in Montreal and established him as a boy wonder in a field that usually requires decades of tooth toughening to succeed. The book is interesting for his ideas of high-rise village life, but even more valuable to the budding genius is his account of the political and economic pressures that shape a project and squash the designer and betray that original sweet idea.

(For an even more revealing perspective on Big Project success, try Albert Spear's Inside the Third Reich. Spear, at 29, was Hitler's architect. I used to think The Fuhrer was a frustrated architect. Turns out he was a successful one.)

Safdie's Student Union for San Francisco State College was initiated, guided, and funded by the students. The building was stopped by asshole trustees.

-SB



Proposed San Francisco State Student Union

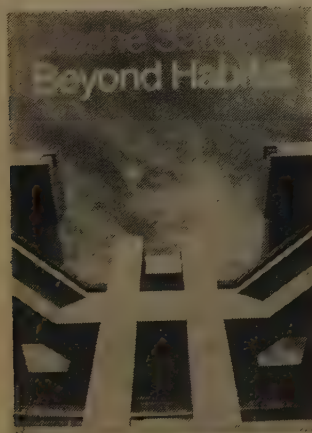
This was another moment when Habitat sat poised between life and death. At that point Churchill could have backed down before Lapointe's pressure. He could have said, "It's your property, you paid towards making it, and you have some rights to it . . ." or "What do you think we should do with it?" Instead, he turned round and asked, "Are you prepared to build it? Are you prepared to finance the whole project?" La pointe said, "No." Churchill said, "When you give money to the government you give it without any strings attached. The government owns what is done with the money you have donated. This is our plan. The Corporation owns it." That was when I realized how strong Churchill really was. He had dealt with the private sector as a government official; there had often been attempts to push him around before, and he wasn't taking it. Right there he saved the project from drifting into the potential problems of the cement companies' uninvolved involvement.

Looking back I find it incredible that fifteen thousand students who were prepared to pay for their own building, and who had support from the president, the faculty senate, the advisory committee, and some of the most respected members of the architectural profession in San Francisco, could be frustrated by sixteen trustees who met once a month to run eighteen colleges. And that in a state where Reagan was elected on a platform of "conservatism," which we are told supports decentralization and community control of community functions. This was a project that surged on the constructive energies of students over a period of five years—a campus effort to get a building built with their own money. If the building had gone ahead at that point, it would have involved the whole campus, had everyone working together creatively. We were going to buy looms and all the textiles in the building were to be woven by the students. Students were going to become involved in planting the building in collaboration with the department of botany. Students were going to make the furniture, and make the graphics, all kinds of things. So what do the trustees do? They say "No." And then they're surprised when the campus blows up.

I think it is important to keep emphasizing that there are two issues, not just one: the technical problem and the environmental problem. My intention at Habitat was to organize the building into small repetitive components that lent themselves to industrialization and then to unite them by a formal language of permutations and combinations, rhythms and variations, that would provide the sense of place people need and allow them to retain and develop their sense of identity.

I would say again, that ideally each house should be different from every other house, as each person is different from every other person, and that communities should differ from each other as much as their inhabitants do. The Habitat space cell was only a crude start on the development of this ideal.

Then there is another scale of variations, what the individual can handle once he gets a house: Can he move the walls? Can he change the floor? Can he adapt the space to put books where he wants them? Can he, in short, adapt the house to his habits? The problem is to build adaptability into a house that is mass-produced out of modular components and has standard plumbing and electrical circuits and standard structural components.



Beyond Habitat
Moshe Safdie
1970; 244 pp.

\$10.00

from:
MIT Press
50 Ames Street
Cambridge, Mass. 02142



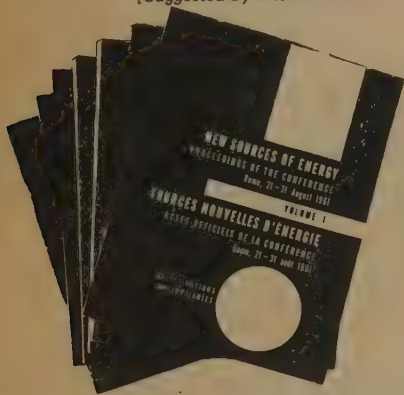
Habitat, and crane that lifted the cast modules into place.

New Sources of Energy

Well, they aren't new sources; they're the oldest: sun, wind, earth heat (geothermal). But OK, to us they're new, and indeed they're exciting. The prospect of truly self-contained habitable energy systems is romantic country. There you are with your friends on your hill putting sun and wind through useful changes that are not only apparent to you but an integral part of your living.

Michael Rosenthal first tipped us to this remarkable set of U. N. documents which arose from a conference in Rome in 1961. If you're deeply into solar or wind energy there's lots of stuff here unfindable elsewhere. Japanese solar pillows—simple elegant water heaters up on the roofs, thoroughly described in volume five. Traditional Dutch drainage windmills with suggested adaptations for other early-technology applications in volume seven. And so on. A trove.

[Suggested by Michael Rosenthal]



Proceedings of the United Nations Conference on New Sources of Energy

- \$2.50 Volume One (General Sessions)
- \$5.00 Volume Two (Geothermal I)
- \$5.50 Volume Three (Geothermal II)
- \$7.50 Volume Four (Solar Energy I)
- \$4.50 Volume Five (Solar Energy II)
- \$5.50 Volume Six (Solar Energy III)
- \$3.50 Volume Seven (Wind Power)

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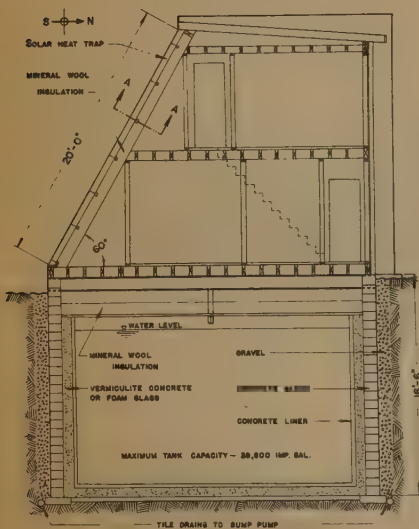


Figure 1. Cross-section of solar heated house



Solar Water Heaters in Japan

★ Tractor Supply Company

OK, so you've got this new community in Niobrara County, Wyoming, half way between Dull Center and Bright. You've got 20 people, 5 assorted dogs, a hen (but no rooster), and 12 cats, several of which are pregnant. You've also got: 1 glacier tent, 1 yurt, a Red VW Microbus camper with a noisy rear end, a 15 speed racing bike, and a 1947 John Deere "A" tractor.

There being no roads within 40 km., the Poppin' Johnny is the only transportation in or out. (I told you to get a horse.) Except "it" just broke a rear axle (I told you not to try those 20 ft. jumps) and it's a long, long, way to your Friendly Local John Deere Dealer. Who probably doesn't have the parts in stock anyway. And 1) won't come get your tractor; 2) doesn't want to sell you a repair manual.

There is only one general mail order house that I know of that deals in tractor parts: TRACTOR SUPPLY COMPANY.

[Reviewed by Curtis Cole]

Catalog free

from:
Tractor Supply Company
4747 North Ravenswood
Chicago, Illinois 60640



**3-POSITION
SELECTOR VALVE**
Designed primarily for cultivating purposes. Allows raising either side or both sides as desired. For low or high pressure systems.

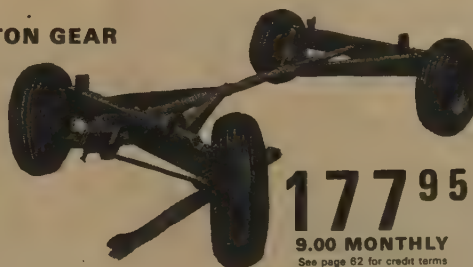
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ROTO-EGG EGG WASHER

- Cleans and sanitizes up to 10 dozen eggs every 3 to 5 minutes.
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177.95
9.00 MONTHLY
See page 82 for credit terms



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Concrete Boatbuilding

Ferro cement is a super strong 3/4" thick fireproof material used for boat hulls, consisting of a mixture of sand and cement plastered over a wire framework. It is cheaper and easier than conventional boat-building techniques and very few special tools are needed. This is a textbook on building a ferro cement boat where the authors share details of their considerable experience. There is a fine concise section on how to build, and chapters on reinforcing, mortar mixing, and finish work.

Ferro cement should work well on land . . . let us know if you hear of any F. C. domes.

—LK



Concrete Boatbuilding Its Technique and Its Future

Gainor W. Jackson
W. Morley Sutherland

\$7.95 postpaid

from:
John de Graaf, Inc.
34 Oak Street
Tuckahoe, New York 10707

or WHOLE EARTH CATALOG

★ Compost Science

magazine concerning itself with teaching the world to compost instead of dump or trash. full range of ideascopes from city conversion down to pressing and storing chickenshit bricks. good community awareness, printed by rodale.

—jd



Compost Science

Jerome Goldstein, editor

\$6.00 per year (monthly)

\$1.00 single copy

from:
Rodale Press
33 East Minor Street
Emmaus, Pennsylvania 18049

The use of composting to convert organic solid waste into a fertilizer, soil conditioner or nutrient source, is a topic of discussion and controversy. Actually the real value of this process is disposal of solid waste with the production of a usable aesthetically non-objectionable and hygienically safe residue. In this process, carbon in a high energy form and nutrient elements are returned for reuse in the ecological cycle rather than destroyed as done by incineration. Various modifications of the basic process are used throughout the world for the disposal of night soil, sewage sludge and refuse. In the United States, the interest in composting has been rather limited. It has been stated that the lack of enthusiasm for composting in this country follows from the American tradition of putting wastes "out of mind" which in effect obstructs any interest in reclaiming organic solids. Recently, some cities have recognized its potential as a method of refuse disposal as other methods of treating solid waste become uneconomical.

Past attempts to produce and market compost have met with limited success. Failure is often due to the inability to market the compost competitively with chemical fertilizers. The high paper content of a typical urban solid waste makes the material resistant to degradation by composting microorganisms. Consequently, with the limited technology available, existing compost plants operate inefficiently and cannot stabilize the organic material rapidly or completely.

Building a Log House

somewhere,
between missoula and great falls,
is the most beautiful house
in the whole earth,
a two-storey log cabin,
up on a knoll,
smiling.
for two bits this book
will put you there.

-jd

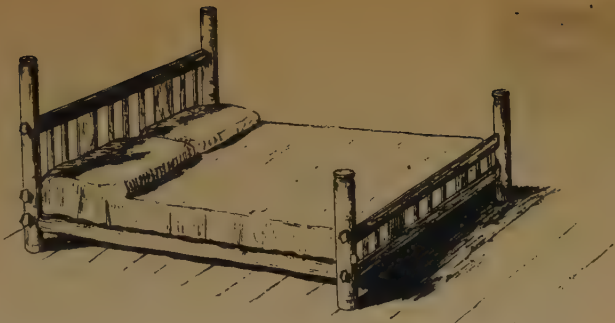
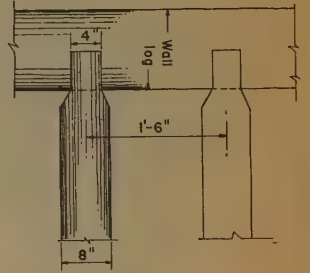
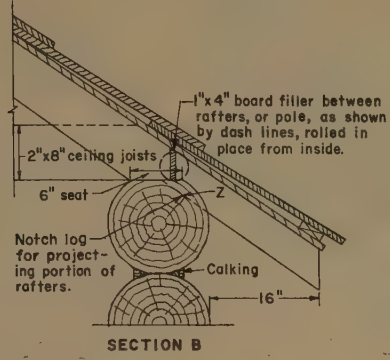
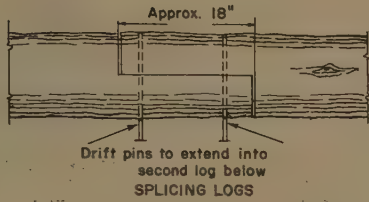


FIGURE 19. — Pole chinking.



Building a Log House

1914, 1965; 43pp.

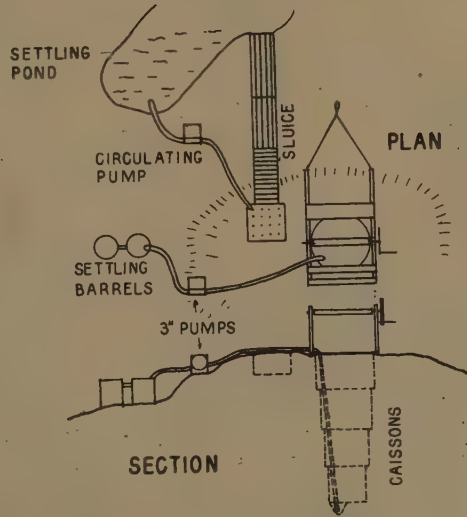
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Cooperative Extension Service
University of Alaska
College, Alaska 99701

or **WHOLE EARTH CATALOG**

Handbook for the Alaskan Prospector

longstanding fantasy:
learn a little about rocks,
walk, fly,
out there somewhere.
set up a placer claim,
live happily ever after.
then this book let me
know that i had to know
more than a little
about rocks.

-jd



Arrangement of Caissons, Pumps, Sluice, and other Equipment.



Handbook for the Alaskan Prospector

Ernest Wolff
1969; 460 pp.

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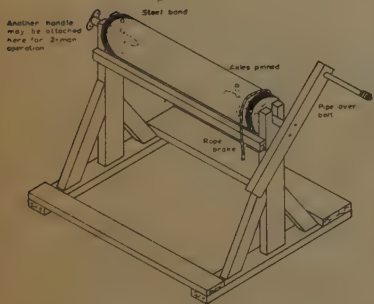
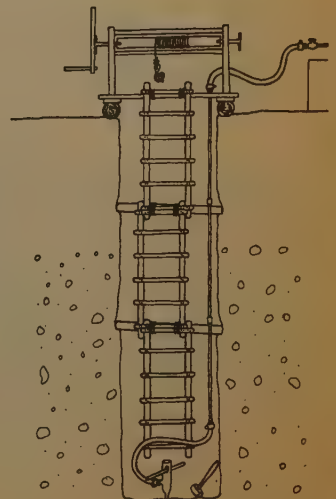
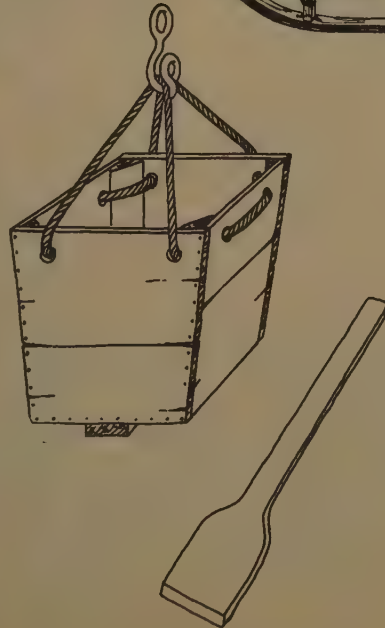
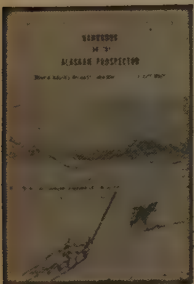
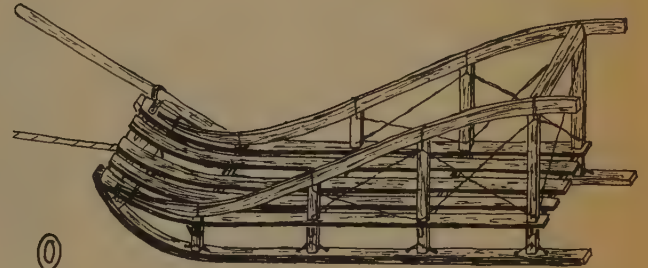


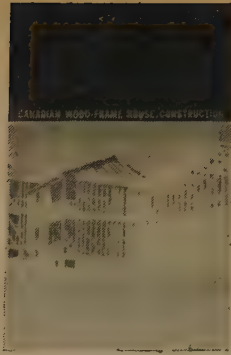
Fig. 16-10 - Winnow Ball of Lumber. See Fig. 13-7 for winnow ball of pole.

Canadian Wood Frame House Construction

best way to learn to become a carpenter is to get some wood and a few tools and put them together somehow, however you can, practice, know the material and what you are trying to do with it. (a crosscut on a 2 by 12 is a good exercise) then, when you are ready to build something, either find someone who has built something, or take a good long look at what you are living in now, or read a book. we carry a bunch of carpentry books. their main worth is in the diagrams. from them you can figure out how other builders do IT. but don't be bound by rectilinear bullshit. read a wooden boatbuilding book (page 113) and figure out how to bend wood, build a snailshell house out of warped one-by. or read this book. good and cheap.

-jd

[Suggested by Ian McKinnon]



Canadian Wood-frame House Construction
197pp.

FREE

from:
Canadian Central Mortgage and Housing Corporation
650 Lawrence Avenue West
Toronto, 7, Ontario, Canada

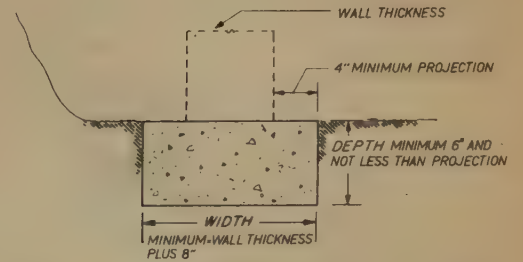
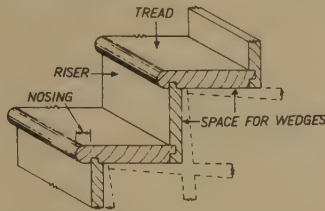
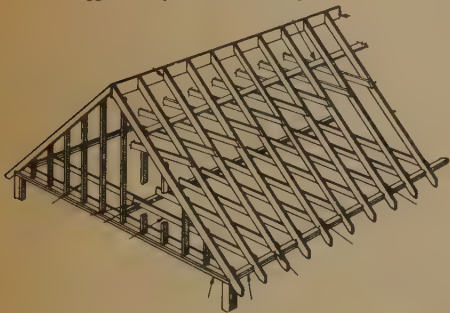
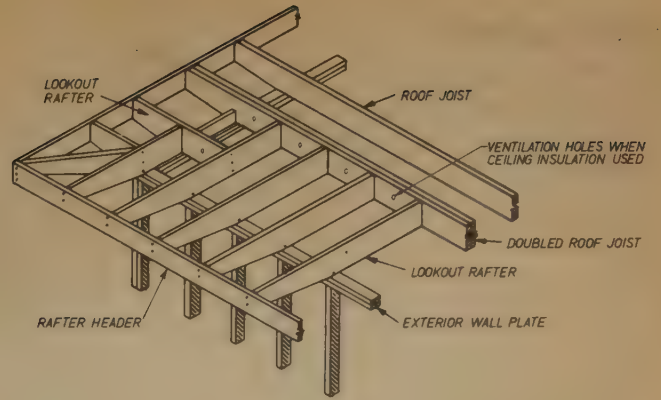
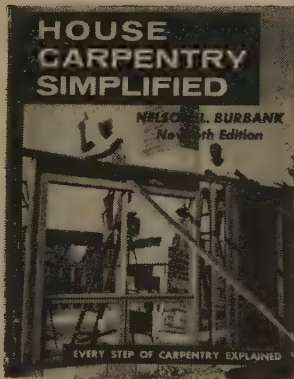


FIGURE 4.—One method often used to determine size of footings.

House Carpentry Simplified

Clear how-to-do-it instructions on rectilinear house building. Reasonably current but not overly detailed, with a good section on fundamental tools and a glossary.

-SB



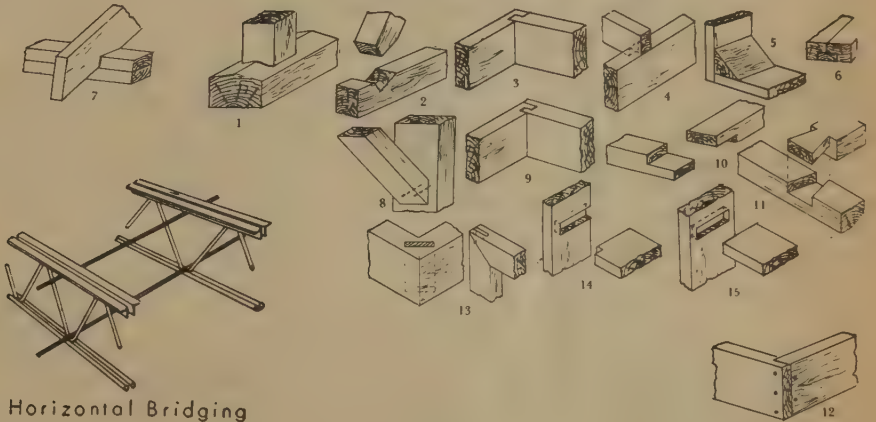
House Carpentry Simplified

Nelson L. Burbank
1958; 252 pp.

\$8.95 postpaid

from:
Simmons-Boardman Books
30 Church Street
New York, New York 10007

or WHOLE EARTH CATALOG



Horizontal Bridging

The Owner-Built Home

Ken Kern makes a unique offer to anyone thinking about building his own home: for \$10 he furnishes a preliminary house design, as well as a copy of The Owner-Built Home, which is about the most useful book on building available.

For the design, send him a sketch of your building site, along with space requirements and personal likes and dislikes; or you may prefer to get the book first and read the first chapter on 'Site and Climate' before sending in the information.

The book is sound advice on the best low-cost building techniques from around the world: Africa, India, Israel: countries that cannot afford U.S.-style waste. Much of it is not in print elsewhere.

A 1" concrete floor with loading stresses of 450 lbs per sq ft; houses built of earth, woven bamboo and bottles, as well as of conventional materials. How to hook up your plumbing in a simple central core.

Good dope on concrete-proportions, additives such as sawdust or emulsified asphalt for 'comfort cushion' floor. Details on wood framing, how stud wall houses are overbuilt, the strength of threaded nails.

There is much good data on building with rock and earth; how to make a sliding form for rammed earth and a discussion of the strength of rammed earth and soil cement. Why don't you hear anything these days about earth wall buildings?

Inasmuch as there is nothing in bare earth to sell, no commercial group can be found to extol its merits.

Lots more, with a bibliography at the end of each chapter for further research.

-SB



The Owner-Built Home and preliminary house design

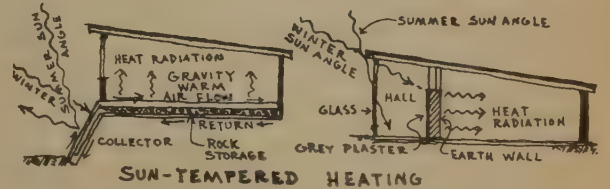
(send sketch, etc.)
Ken Kern
1961; 300 pp.

\$10.00 postpaid
including preliminary design

from:
Ken Kern Drafting
Sierra Route
Oakhurst, CA 93644

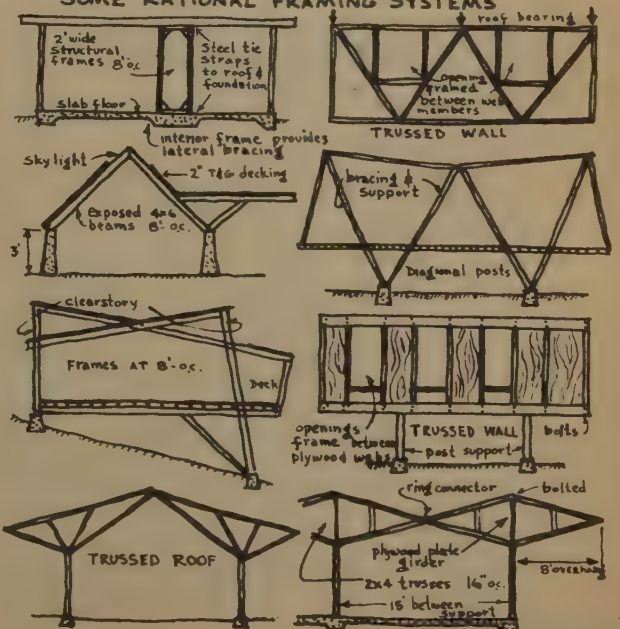
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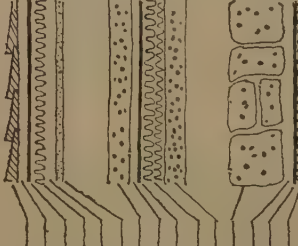
SUN-TEMPERED HEATING

SOME RATIONAL FRAMING SYSTEMS



OUTSIDE WALL SECTIONS

STUD CAVITY MASONRY



- A. protective covering on outside
- B. air space ventilated to outside
- C. vapor barrier envelops room
- D. thermal insulation
- E. air space ventilated to outside
- F. protective covering on inside.

★
Earth for Homes
Handbook for Building Homes of Earth

these two together give all the grit on the subject. practical, non-historical (here's how pithecantropus did it) get out and do big mudpies approach. a lump of clay, live with it.

-jd

Earth For Homes: Ideas and Methods Exchange PB 188918

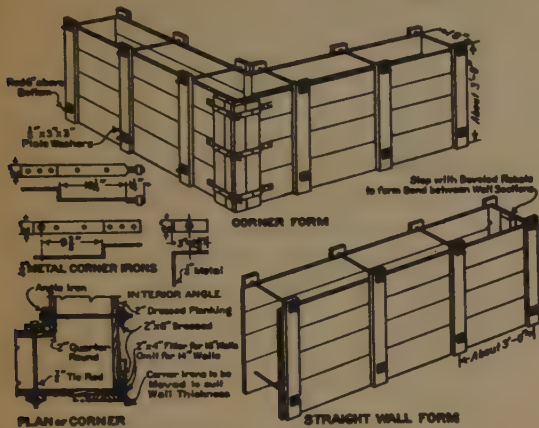
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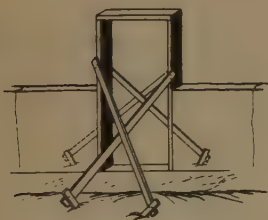
Handbook for Building Homes of Earth PB 179 327

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Corner and Straight Wall Forms for Rammed Earth.



SUGGESTED REFERENCES

Many good books are available that cover special subjects on earth houses in greater detail than can be done in this short manual. The ones listed below are some of the best ones available.

1. *ASTM Standards 1958, Part IV*. American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pennsylvania.
2. Burkhart, Edsel J. *Investigation of Soils and Building Techniques for Rammed Earth Construction*, A. & M. College of Texas, Texas Engineering Experiment Station Research Report No. 6, College Station, Texas, May, 1949. (Out of print.)
3. Cytryn, S. *Soil Construction*, State of Israel, Ministry of Labor, Housing Division, The Weizmann Science Press of Israel, Jerusalem, 1957.
4. *Earth for Homes*. Ideas and Methods Exchange No. 22, Housing and Home Finance Agency, Washington 25, D. C., March, 1955.
5. Fitzmaurice, Robert. *Manual on Stabilized Soil Construction for Housing*. Technical Assistance Program, United Nations, Sales No. 58.II.H.4; New York, 1958.
6. Harrington, E. L. *Adobe as a Construction Material in Texas*, A. & M. College of Texas, Texas Engineering Experiment Station Bulletin No. 90, College Station, Texas, 1945. (Out of print.)
7. *Housing and Town and Country Planning*. United Nations Bulletin No. 4, Sales No. 1950.IV.6, New York, October, 1950.
8. Long, J. D. *Adobe Construction*, University of California, Agricultural Experiment Station Bulletin No. 472, Davis, California, revised November, 1946.
9. *Low Cost Houses*. Building Research Unit Bulletin No. 1, Council of Scientific and Industrial Research, Roorkee, U. P., India, September, 1949.
10. *Methods of Tests for Soil Classification and Compaction*. British Standards Institute, British Standard 1577, British Standards House, 2 Park Street, London, W.1, 1948.
11. Middleton, G. F. *Earth Wall Construction*, Commonwealth Experiment Building Station Bulletin No. 5, Sidney, Australia, 1952.
12. Webb, T. L., Cilliers, T. F., and Stutterheim, N. *The Properties of Compacted Soil and Soil Cement Mixtures for Use in Building*, National Building Research Institute, Union of South Africa, Pretoria, Series DR2, March, 1950.
13. Wolfskill, L. A., Dunlap, W. A., and Gallaway, B. M. "Earth Home Construction, a Field and Library Compilation with an Annotated Bibliography," Texas Transportation Institute, College Station, Texas, Bulletin No. 18, March, 1962.

Soil-Cement—Its Use in Building

A well-detailed booklet on the stabilization of earth with cement, and describes all aspects of using the Cinva-Ram earth moulder.

-SB

Soil-Cement—Its Use in Building
 1964; 85 pp., 93 illustrations

\$1.50 postpaid

from:
 United Nations
 Sales Section
 New York, New York 10017

FORMS IN WHICH SOIL IS USED:

- Soil is used in construction in the following forms:
- (a) In the form of rubble, cut from the surface of the earth, in pieces or blocks of soil.
 - (b) As bricks, made in wooden forms or molds with soil moistened to the required degree.
 - (c) Moistened soil compacted *in situ* in suitable rigid frames to form monolithic walling (rammed earth).
 - (d) As stabilized soil, by combining it with an agent in order to improve its constructive properties.

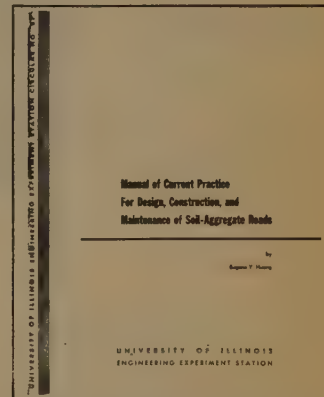
Soil-cement roofing

If it is desired to use soil-cement as roofing for a house, the following methods may be used: (a) laths or reeds are laid on the roof truss or joists and nailed down; a plastic mortar of cement and (sandy) soil in the proportions of 1:7 by volume, with vegetable fibres 3 cm in length added as a reinforcement in the proportion of one part to four parts of mortar, is spread over the laths or reeds. The layer of mortar should be 3 cm deep, duly compacted, and its surface should be smoothed with a trowel. After the material has had time to dry and harden, two or three coats of bituminous material are brushed over the surface in order to make the roofing waterproof.

★
Road Design, Construction, and Maintenance

Not how to build a road, but how to design it. For minimum maintenance and maximum service. Useful for driveways up. From dirt surface to pavement. Some bad stuff like calcium chloride too.

[Reviewed by Fred Richardson]



Manual of Current Practice for Design, Construction, and Maintenance of Soil-Aggregate Roads
 Eugene Y. Huang
 1959; 145pp.

\$3.00 postpaid

from:
 Engineering Publications
 112 Engineering Hall
 University of Illinois
 Urbana, Illinois 61801

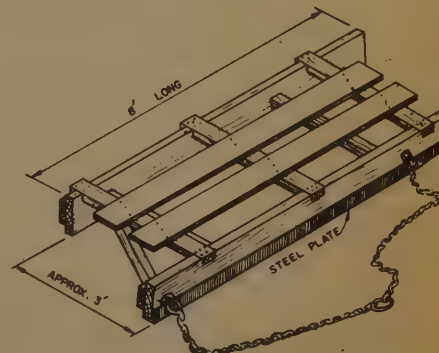


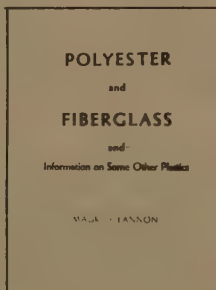
Fig. 5.4 Road Drag Constructed of Sawed Lumber

★
Polyester & Fiberglass

Fiberglass is a cheap strength material, comparable to wood & steel. It is weatherproof, land or sea, & is colored or translucent. The fabrication is very different, however. Since the material is applied as a glass cloth & a liquid plastic, it assumes complex & curved shapes almost as easily as simple shapes. This enables a breakaway from the lines & planes that wood & steel come in into free form & organic shapes. Since fiberglass is formless, a mold is usually necessary. Making a mold is cheap but time consuming & the mold can be used many times. A boat hull or a chair are naturals for fiberglass. We used it to make a 5' diameter parabolic dish for a mirror. It would be a cheap & effective way to turn Frie Otto's (see Vol II, *Tensile Structures*., of WEC) incredible shapes into houses.

This is a nitty-gritty book. It tells you what to ask for at the store. It has names for all the mistakes we made. It enables you to learn so much from your first fuck-up that the second one works. It comes as close to someone standing there showing you how to do it as a book can, which is perhaps not so close. The lack of emphasis on safety procedures is a perhaps a fatal flaw. An aspirator should always be used when sanding fiberglass & the liquid resin should never come in contact with your skin—use rubber gloves.

[Suggested and Reviewed by Day Chahroudi]



Polyester & Fiberglass
 Maurice Lannon
 1963, 69; 126pp.

\$4.50 postpaid

from:
 Gem-O-Lite Plastics Corp.
 5525 Cahuenga Blvd.
 North Hollywood, Ca. 91601

It is now used for making automobile bodies (Chevrolet's "Corvette" has an all-fiberglass body), and for making a permanent boat coating. Many manufacturers are using it to produce washing machine agitators, vacuum cleaners, "glass" fishing rods, dent-resistant tanks for chemicals and acids, protective safety helmets, Marine bullet-proof vests that weigh only eight pounds and will stop most shrapnel and small-arms fire, electrical insulation, laminates, precision-molded housings for machinery, skis, fishing tackle, chairs, futuristic furniture, garden furniture (Impervious to rain and sun), trailers, bathtubs, even coffins. And you can make any of these!

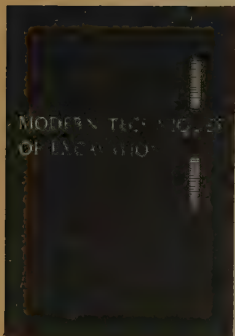
POLYESTER PLASTIC RESIN is a thick viscous liquid about like corn syrup to which a catalyst (and sometimes an accelerator) is added. It sets up hard and stiff yet has the resiliency to resist repeated hammer blows when used with fiberglass. Polyester alone is brittle in thin sheets. Fiberglass adds strength.

There are many different formulations of Polyester on the market. The variety of properties that can be obtained from this one plastic is amazing, but as there are many Polyester manufacturers, of course there are many different Polyesters, each made for laminating and/or casting, but with properties that vary slightly, and with several different manufacturer-recommended catalysts and accelerators. It is always wise to follow your dealer's recommendations on the catalyst system to use. Then experiment with other systems if you want to.

★ Moving the Earth
Modern Techniques of Excavation

The beauty of this tome, and its abridged edition, is that it does not stop after postulating optimum conditions like a "long enough lever and a firm place to stand." After suggesting ways to clear land, remove tree stumps, or lay out an access road using rented machinery like dozers and dump trucks, it goes on to explain many other ways to get it done when the "proper" equipment is not available. Most conceivable snafus are dealt with. Not just how to use a dozer so it doesn't turn over, and rig a winch so it doesn't snarl; but how to get your dozer back on its treads without calling the AAA, and how to unsnarl your winch. All is explained in text and again in eminently understandable drawings.

[Suggested and Reviewed by Alan Kalker]



Moving the Earth, Workbook of Excavation
 Herbert L. Nichols, Jr.
 1962; 1400pp.

\$25.00 postpaid

from:
 Northcote Books
 212 Bedford Road
 Greenwich, Connecticut 06830

Modern Techniques of Excavation
 (abridged version of *Moving the Earth*)
 1956; 450pp.

\$10.00 postpaid

from:
 Northcote Books
 212 Bedford Road
 Greenwich, Connecticut 06830

or WHOLE EARTH CATALOG

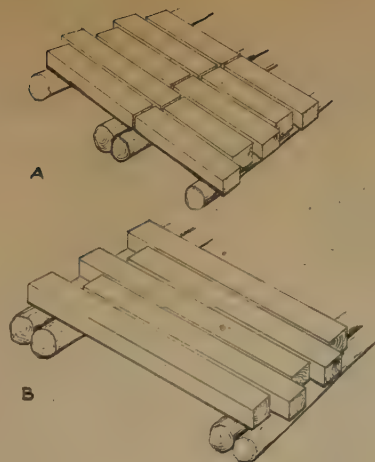


Fig. 3-10. Railroad ties for truck road

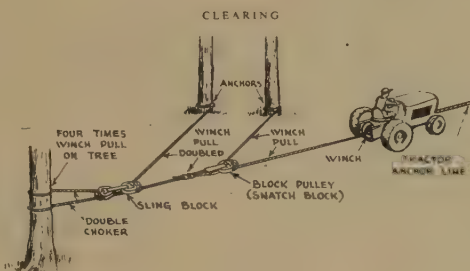


Fig. 1-18. Use of sling block

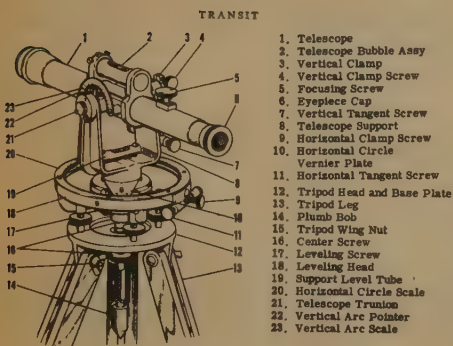
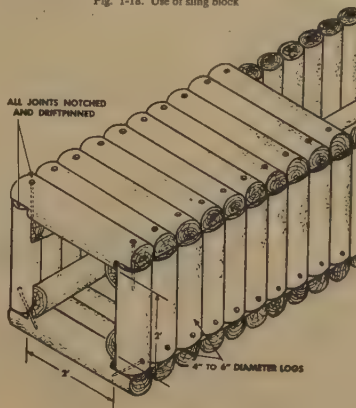


Fig. 2-6. Parts of level transit



Log culvert, 2- by 2-foot.

The Construction Bargaineer

The Construction Bargaineer lists surplus and used contractor's equipment. Here is where you can get used military trucks, bulldozers, tires, cable, wire, and just about anything you can imagine a contractor using. The prices seem good to me. Personally, I'd beware of tying up a lot of money in equipment unless you need (rather than want) it, though there are many things in this catalog that could be useful to a commune.

[Reviewed by J. Baldwin]

Catalog
\$4.00 /yr (24 issues)

from:
 The Construction Bargaineer
 P. O. Box 1061
 Saint Paul, Minnesota 55105

Write - Wire - Phone Today For Your **FREE** 124-PAGE CATALOG of Material Handling and Processing Equipment. LARGE STOCK OF CONVEYOR BELTING, ROLLER CHAIN, BEARING UNIT BLOCKS AT LOW PRICES. See Our Ad On Pages 4 & 5. **BONDED SCALE & MACHINE CO.** 144 BELLEVUE AVE. • COLUMBUS, OHIO 43207

LARGE DUPLEX - SUPER SINGLES
MAJOR BRAND - TBL. 1st

1519.5	14 ply nylon Hwy.	\$115
1519.5	16 ply nylon Hwy.	\$120
16519.5	16 ply nylon Hwy.	\$120
16519.5	18 ply nylon Hwy.	\$125
1822.5	18 ply nylon Traction	\$210

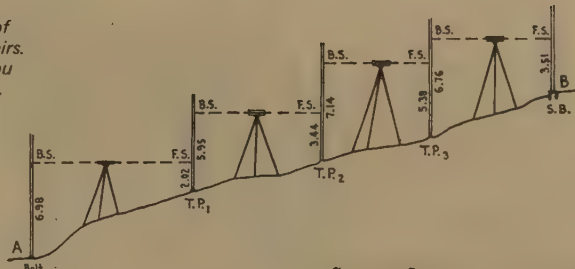
See Large Ad Page 2. **GANS SURPLUS TIRE CO.** 1002 BROADWAY • CHELSEA, MASS.

2 TON 4 x 4 FORD LIKE NEW!
 50 m.p.h. speed; V-8 engine 239 cu. in.; 2-sp. Timken transfer case. Timken front & rear axle w/takeoff adapted on trans. case & transmission. 9x20 tires.
\$1,295
 See Our Large Ad, Page 20 & 21
SOUTHEASTERN EQUIPMENT CO.
 3206 PEACH ORCHARD ROAD • AUGUSTA, GEORGIA

★ Surveying

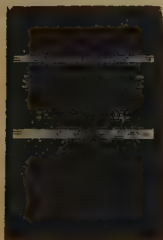
surveying is the human way of pissing on all the corners of your property, so you know what's yours and what is theirs. it is also a way of leveling, finding corners, mapping. if you are going to use land, chances are you'll run into a survey. this book seems to cover the discipline and use of the surveyor's tools.

-jd



Point	B.S.	F.S.	Remarks
A	6.98		Bolt in S.W. Abutment High St. Bridge
T.P. ₁	5.95	2.02	
T.P. ₂	7.14	3.44	
T.P. ₃	6.76	5.38	
B		3.51	N.E. corner stone bound in sidewalk at #32 High St.
	26.83	14.35	
Diff.	12.48	B above A	

FIG. 51. DIFFERENTIAL LEVELING.

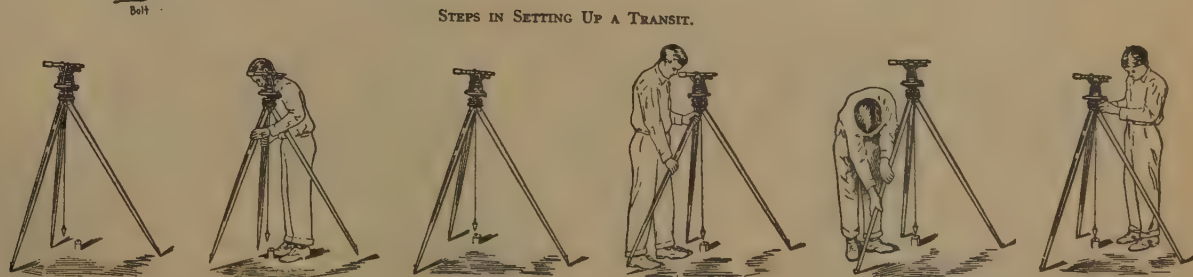


Surveying
 Charles B. Breed
 1942, 1957; 495pp.

\$7.95 postpaid

from:
 John Wiley and Sons
 605 Third Avenue
 New York, New York 10016

or WHOLE EARTH CATALOG



- 1st. Set instrument on ground near point, with legs spread to give convenient height. Without reference to point, move legs so that plates are nearly level. Tripod leg screws should be firm but not binding.
- 2nd. Pick up instrument bodily without disturbing relative position of legs and head.
- 3rd. Place down again with plumb-bob within 1" of point and bring bob to within 1/2" to 3/4" of point by shifting legs slightly.
- 4th. Swinging one or more legs in arc of circle will approximately level head without changing materially the position of bob.
- 5th. Press each leg firmly into ground about same amount, watching position of bob so that it will finally return to within 1/2" to 3/4" of the tack. Plates should still be nearly level.
- 6th. Bring bob exactly over tack by loosening two adjacent leveling screws and shifting head. Then tighten leveling screws and proceed to level the plates.

Water

Aermotor

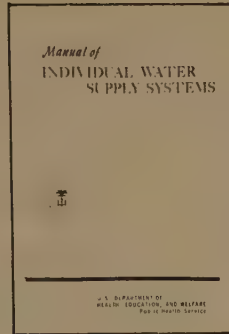
about everyone at home used aermotor, pitmans, pitman guides, well points, water sand, home brew in the water tanks.

-jd

Aermotor Information free

from:
Aermotor
1420 N.E. Third Street
Amarillo, Texas 79107
2225 W. Curtiss
Downers Grove, Illinois 60515
Broken Arrow, Oklahoma 74012

AERMOTOR PUMPING CAPACITY								
Diameter of Cylinder (Inches)	Capacity per Hour, Gallons		Total Elevation in Feet					
	SIZE OF AERMOTOR							
	6 Ft	8-16 Ft	6 Ft	8 Ft	10 Ft	12 Ft	14 Ft	16 Ft
1 3/4	105	150	130	185	280	420	600	1,000
1 7/8	125	180	120	175	260	390	560	920
2	130	190	95	140	215	320	460	750
2 1/4	180	260	77	112	170	250	360	590
2 1/2	225	325	65	94	140	210	300	490
2 3/4	265	385	56	80	120	180	260	425
3	320	470	47	68	100	155	220	360
3 1/4	...	550	...	...	88	130	185	305
3 1/2	440	640	35	50	76	115	160	265
3 3/4	...	730	...	...	65	98	143	230
4	570	830	27	39	58	86	125	200
4 1/4	...	940	...	...	51	76	110	180
4 1/2	725	1,050	21	30	46	68	98	160
4 3/4	...	1,170	...	...	61	88	140	...
5	900	1,300	17	25	37	55	80	130
5 3/4	...	1,700	...	...	40	60	100	...
6	...	1,875	...	17	25	38	55	85
7	...	2,550	...	...	19	28	41	65
8	...	3,300	...	...	14	22	31	50



Manual of Individual Water Supply Systems
U.S. Dept of Health Education and Welfare

\$.60 postpaid

from:
Superintendent of Documents
Government Printing Office
Washington D.C. 20402

Manual of Individual Water Supply Systems

water supply, gets into hand dug wells, a little stiff on heavy electric motors.

-jd

TYPES OF WELLS

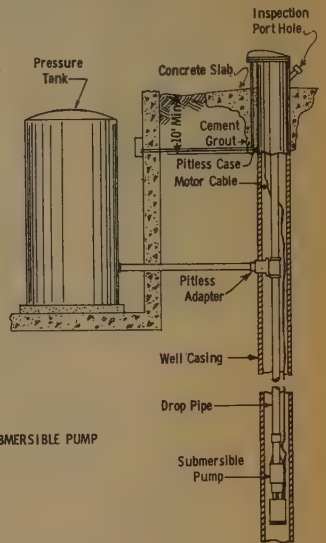
Wells may be classified with respect to construction methods as dug, bored, driven, drilled, and jetted.

Drilled wells may be drilled by either the rotary or percussion method.

Each type of well has distinguishing physical characteristics and is best adapted to meet particular water-development requirements.

The following factors should be considered when choosing the type of well to be constructed in a given situation.

1. Characteristics of the subsurface strata to be penetrated and their influence upon the methods of construction.
2. Hydrology of the specific situation and hydraulic properties of the aquifer; seasonal fluctuations of water levels.
3. Degree of sanitary protection desired, particularly as this is affected by well depth.
4. Cost of construction work and materials.



SUBMERSIBLE PUMP

Hydra-Drill

looks like a good way to get shallow water, tap springs, bore blasting holes. priced around \$350.00.

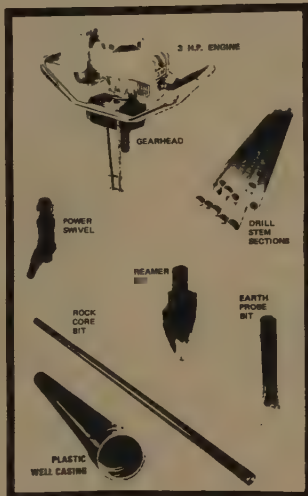
-jd

Information

free

from:
Deeprock Manufacturing Co.
Box 870
Opelika, Alabama 36801

The HYDRA-DRILL is designed to drill water wells approx. 3 1/2" diameter and up to 200' deep. Because it is economical, portable and easy to use, many contractors and prospectors use it for coring and other test drilling.



The HYDRA-DRILL is powered by the latest model TECUMSEH 3-H.P. engine featuring needle bearings thru out. A thumb-bar throttle control affords total operator control. The rugged 36:1 gear reducer converts the 3,600 engine rpm to 100 rpm for the hi-torque required for hard drilling.

Rife Hydraulic Rams

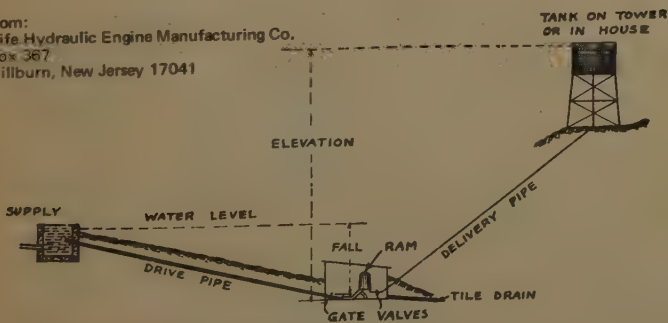
a mechanical magic way of pumping water.

[Suggested by Pete Schermerhorn and S. Hamill Horne]

Information

free

from:
Rife Hydraulic Engine Manufacturing Co.
Box 367
Millburn, New Jersey 17041



USUAL METHOD OF INSTALLING A RIFE HYDRAULIC RAM. THIS MAY BE VARIED, DEPENDING ON LOCAL CONDITIONS. SEE FOLLOWING PARAGRAPHS.



Monitor Pumps

elbow grease hand pumpstands

Information

free

from:
Baker Manufacturing Co.
Evansville, Wisconsin 53536

Heller-Aller

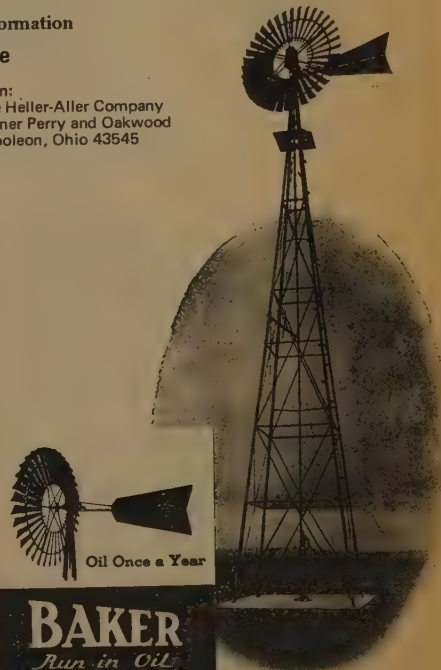
windmills, towers, pumps, and so forth

-jd

Information

free

from:
The Heller-Aller Company
Corner Perry and Oakwood
Napoleon, Ohio 43545

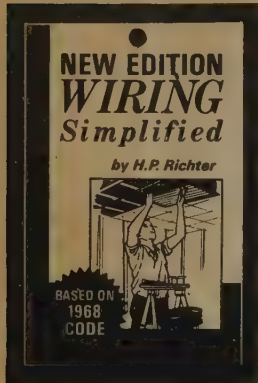


Electricity

Wiring Simplified

other than that this book is a most useful tool for the home electrician, the thing I like about it is that it has a hole punched all the way through it, for hanging over a nail, that is a kind of practicality that all American publishers should learn. everything you'll need to wire your home yourself.

-jd



Wiring Simplified
H.P. Richter
1968; 143pp.

\$1.25 postpaid

from:
Park Publishing Company
Box 8527
Lake Street Station
Minneapolis, Minnesota 55408

or WHOLE EARTH CATALOG



Fig. 10-1. Code Type NM nonmetallic sheathed cable contains two or three Type T wires. The outer braid is easily removed.



Fig. 5-1. Plug fuses are not made in ratings over 30 amp.

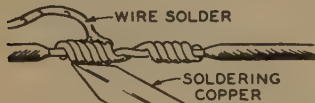


Fig. 4-25. In soldering, do not drop hot solder on cold wire. Heat the wire until it is hot enough to melt solder.

In residential and farm wiring, one of the wires is always grounded, that is, connected to a water pipe or driven ground rod. The grounded wire is known as the *neutral* wire; all other wires are known as "hot" wires. It is most important that you remember the following four points:

1. The grounded neutral wire is *always* white in color.
2. The grounded neutral wire must run direct to every 115-volt device to be operated (*never* to a device operating only at 230 volts.)
3. The grounded neutral wire is *never* fused.
4. The grounded neutral wire is *never* switched or interrupted in any other way.

With one exception (which will be discussed later) white wire may never be used except as a grounded wire. Other wires are usually black but may be some other color, but not white (with the one exception just mentioned) or green.

The white wire must run to every 115-volt device *other than a switch*; the other wire is usually black but may be some other color, but not white or green. Examine a socket or similar device carefully and you will find that one of its two terminals for wire is a natural brass color, the other is a white color, usually nickel-plated or tinned. *The white wire must always run to the white terminal.* In the case of sockets, the white terminal in turn is always connected to the screw shell and never to the center contact of the socket. Switches for controlling lights, etc., never have white terminals.

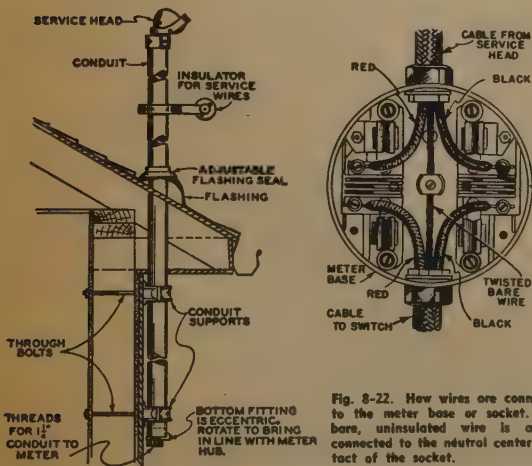
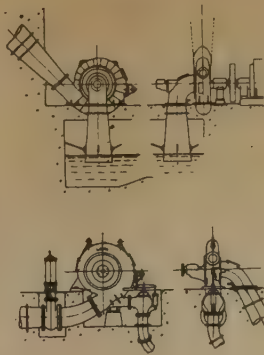


Fig. 8-22. New wires are connected to the meter base or socket. The bare, uninsulated wire is always connected to the neutral center contact of the socket.



★ Leffel Hydraulic Turbines

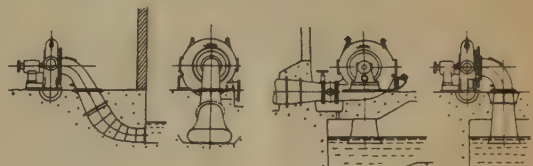
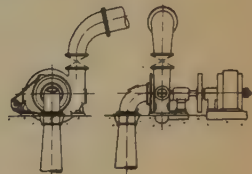
if you have a good head of water nearby, a creek, river, reservoir, dam, then you can build a electrical system powered by the water. There are homemade methods, and used turbines, but it helps if you understand what it takes to change the creek into a lightbulb. Leffel has been doing this industrially for a hundred or so years, but they also have single family systems. Ask for Pamphlet A.

-jd

[Suggested by Pete Schermerhorn]

Information free

from:
The James Leffel Company
Springfield, Ohio 45501



★ Honda Generators

used to be that gasoline driven generators were big clumsy oafs, but wily honda has begun to do the same thing to the generator that he did to the motorcycle, the company makes a wide variety of power models, most of them being ac-dc at the flip of a switch. look good for auxilliary power sources, easily carried into about anywhere, fourstroke, aircooled, ten hours per gallon.

-jd

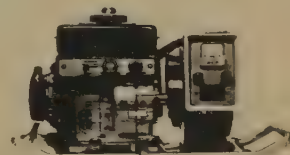
[Suggested by Les Rosen]



ED 250K1 (DC only)
6V 60W/12V 200W/24V 250W



E300
AC: 300W / DC: 12V 100W



E600 (AC only)
600W / MAX. 700W

Information free

from:
American Honda Motor Company, Inc.
100 West Alondra Boulevard
Gardena, California 90247

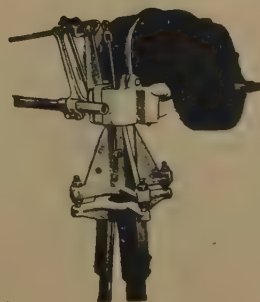
★ Quirks

australian wind-driven electric plants, wind chargers.

-jd

Information free

from:
Quirks
33 Fairweather Street
Bellevue Hill 2023, Australia



Three-blade, wind-driven power plant fitted with Automatic. Variable-pitch Propeller. Two models available.

-jd

from:
Goodwin-Cole Company
1315 Alhambra Boulevard
Sacramento, California 95816



Tipis

The Indian Tipi

Tipis are cheap and portable. To live in one involves intimate familiarity with fire, earth, sky and roundness. The canvas is a shadow-play of branches by day, people by night. Depending on your body's attitude about weather, a tipi as dwelling is either a delight or a nuisance. Whichever, you can appreciate the elegant design of a tipi and the completeness of the culture that produced it.

The Laubin's book is the only one on tipis, but it is very good. All the information you need, technical or traditional, is here, and the Laubins are interesting people.

-SB



The Indian Tipi
Reginald and Gladys Laubin
1957, 1970; 208 pp.

\$6.95 postpaid

from:
University of Oklahoma Press
Sales Office
1005 Asp Avenue
Norman, Oklahoma 73069

or WHOLE EARTH CATALOG

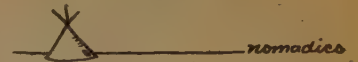
* Nomadics Tipi

a new tipi company, family, tribe,
16 to 22 foot tipis,
in eight and twelve ounce
double fill canvas,
and eight ounce acrilon.
lock teeth brass grommets,
sailmaker's lock stitching,
dacron thread,
good prices,
good people.

-jd



from:
Nomadics
Box 462
Lapine, Oregon 97739



tipi size	8 oz. d.f. * Kit **	8 oz. d.f.	12 oz. d.f.	8 oz acrilon	6' liner
16'	\$60	\$80	\$85	\$140	\$35
18'	70	90	97	155	38
20'	80	97	107	180	40
22'	90	105	120	212	47

* double fill

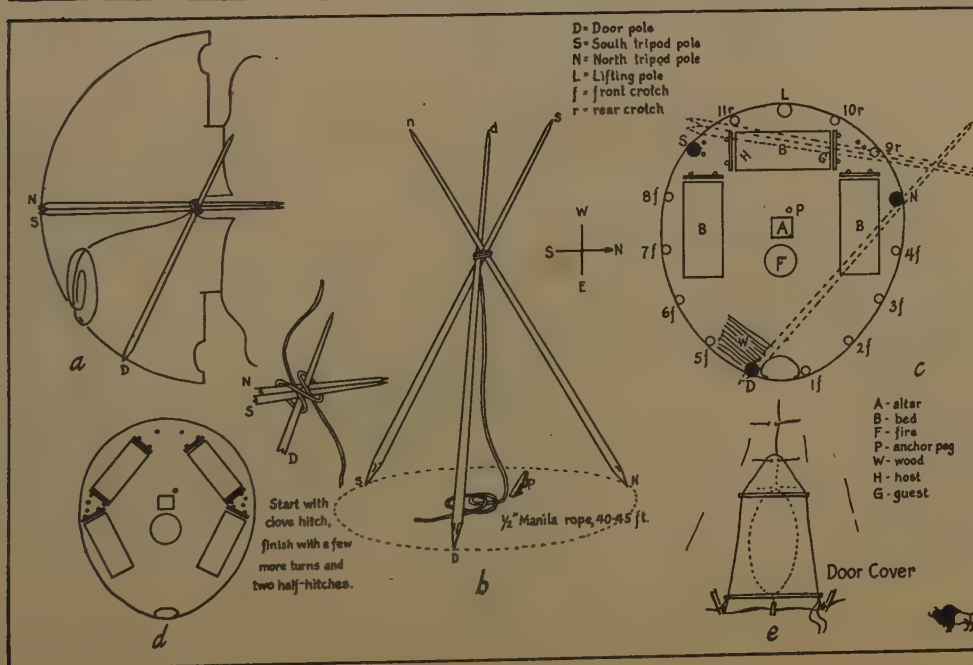
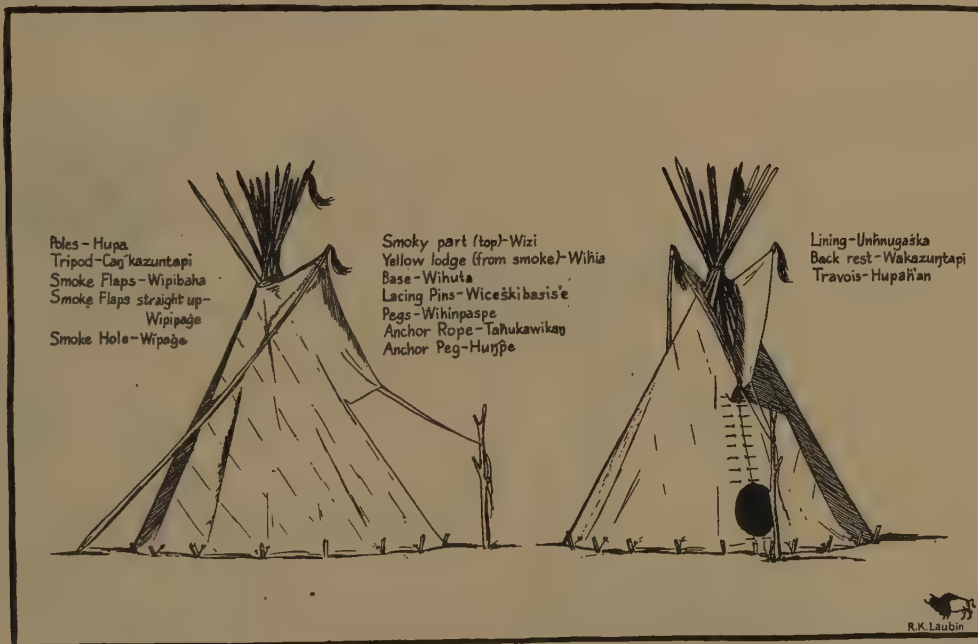
** Nomadic Tipi Kit: We send pre-cut tipi cover ready to be sewn together including all grommets, peg loops, and thread, with complete instructions.

Tipi size, listed in feet, is the actual side slope of the tipi or radius of the tipi cover when lying out flat.

For continuous nomadic living we personally recommend the twenty foot eight ounce Acrilon tipi with the six foot ten ounce Permasol liner.

Complete assembly instructions are sent with tipi.

Send 50% of cost with order if you wish C.O.D. delivery. Allow two weeks for delivery.



Peterson Field Guide Series

The thing that is so nice about these guides is that everyone of them has a lot of stuff in it. The books are easy to use and well-illustrated enough so that if you look carefully you can identify most any species of bird, flower, bug, etc. that you meet up with. Too bad they aren't all paperback so that you could put all of them in your pack.

[Reviewed by Terri Gunesch]

at present, there are 19 books in the series. they are generally \$5.95 each. here is the list:

- * 1. A Field Guide to the Birds (paper \$3.95) (eastern land and water birds)
- 1R. A Field Guide to Bird Songs (two 12-inch LP records)
- * 2. A Field Guide to Western Birds (\$5.95)
- 2R. A Field Guide to Western Bird Songs (three 12-inch LP records)
- 3. A Field Guide to the Shells (Atlantic and Gulf Coasts)
- 4. A Field Guide to the Butterflies (Eastern North America)
- * 5. A Field Guide to the Mammals (\$5.95)
- 6. A Field Guide to Shells of the Pacific Coast and Hawaii (including the Gulf of California)
- * 7. A Field Guide to Rocks and Minerals (\$5.95)
- 8. A Field Guide to the Birds of Britain and Europe
- 9. A Field Guide to Animal Tracks
- 10. A Field Guide to the Ferns and Their Related Families (Northeastern and Central North America)
- 11. A Field Guide to Trees and Shrubs (Northeastern and Central North America)
- * 12. A Field Guide to Reptiles and Amphibians (\$5.95) (Eastern North America)
- 13. A Field Guide to the Birds of Texas and Adjacent States
- * 14. A Field Guide to Rocky Mountain Wildflowers (\$5.95)
- * 15. A Field Guide to the Stars and Planets (\$5.95)
- * 16. A Field Guide to Western Reptiles and Amphibians (\$5.95)
- * 17. A Field Guide to Wildflowers (\$5.95) (Northeastern and North Central North America)
- 18. A Field Guide to the Mammals of Britain and Europe
- 19. A Field Guide to the Insects (America North of Mexico)

* indicates those books carried by WHOLE EARTH CATALOG

these are obtainable from:

Houghton Mifflin Company
2 Park Street
Boston, Massachusetts 02107

-jd

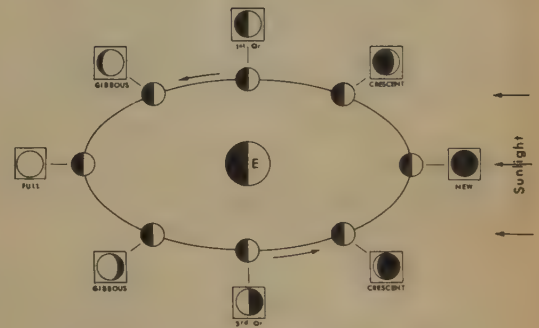
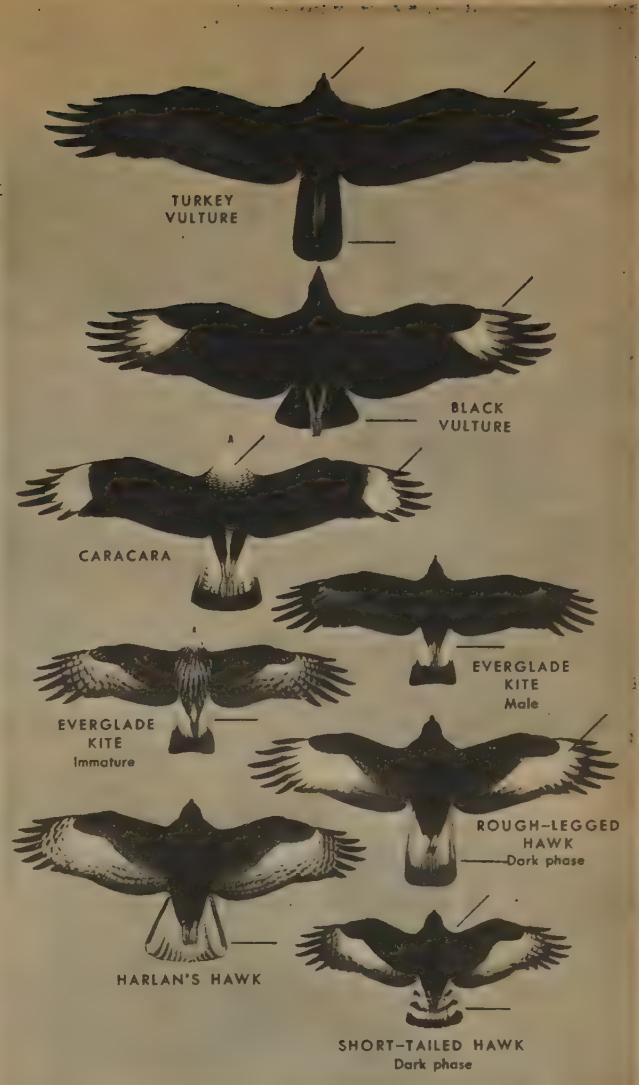
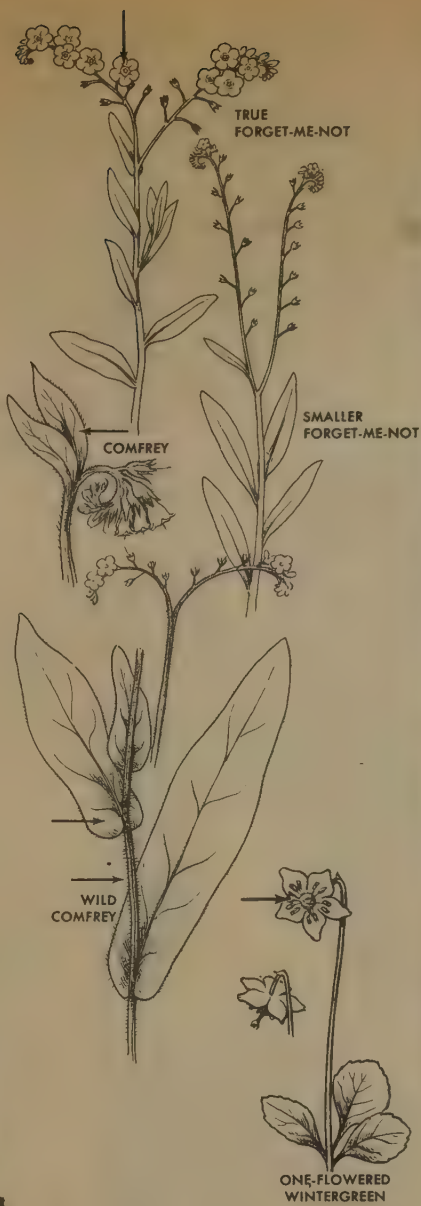
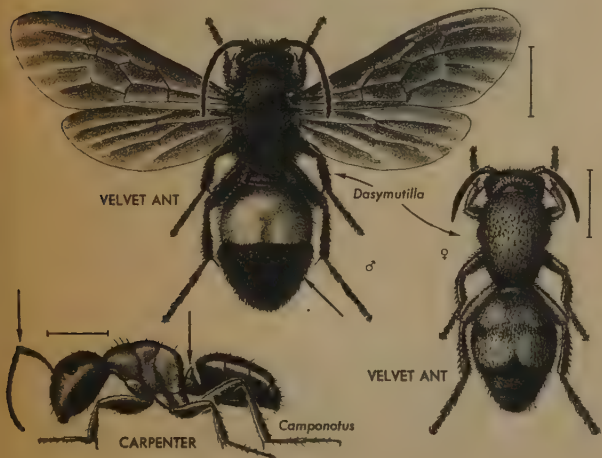


Fig. 24. Phases of the moon
Framed sketches show the moon as it appears in the sky

Chickenpower

here's a man who drives a Hillman on gas collected from chickenshit. he sells a gas conversion devise.

-jd

Information
free

from:
Harold Bate
Pennyrowden
Blackawton,
Totnes—Devon, England

Thank you for your letter regarding my Gas Equipment which enables a Petrol or Diesel engined vehicle to run on Methane Gas made from manure or any other type of Gas including Propane Gas—Natural Gas (which is Methane) which I recently demonstrated on C.B.S. and Canadian Television and on B.B.C. I am now supplying the Gas Converter Device which is connected to the engine (size 6" x 5") suits all makes and types of engines. The Device is ready for connecting to the engine and is complete with Instructions and Drawings—also Instructions and Drawings for Methane Gas Production. The Price is \$25 which includes the Gas Converter Device and the two sets of Instructions and Drawings—also the Postage. The goods will be despatched return Post on receipt of American Dollars or American International Postal Money Orders.

—H. Bate



★ **Livestock and Poultry Production**

if you were never in FFA or 4H, and if you think a polled hereford is a female cow standing on stilts so she can eat the leaves off trees, then you could probably stand to read this textbook. although aimed at the beginning animal husbandry major, so that there is a morbid interest in the industrial aspect of raising to slaughter, there's a lot of useful information here about cattle sheep hogs and poultry, look past the "agriculture makes our country strong" bullshit, and don't be put off by the questions at the end of every chapter. should serve as an introduction to animal science.

-jd

A ton of raw garbage formerly produced 50 to 80 pounds of pork. With the changes that have come about in kitchen and restaurant management, a ton of garbage today may produce only from 20 to 30 pounds of pork. Unless considerable grains are fed with the garbage, a poor carcass will be produced.

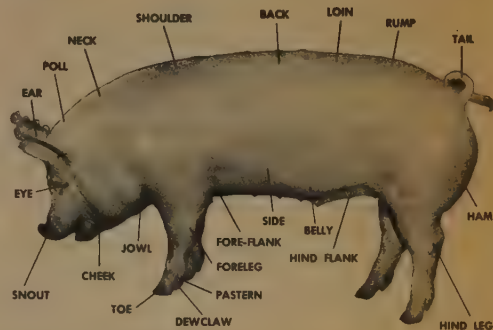
Garbage-fed hogs were responsible for the rapid spread of vesicular exanthema during the past few years, and cases of trichinosis have been prevalent in some communities where raw garbage was fed to hogs. In feeding garbage, extreme care should be taken to maintain sanitary quarters. Concrete feeding floors are recommended, and the yards should be thoroughly cleaned and disinfected regularly. Thorough cooking of pork products is necessary to kill any disease organisms which may be prevalent in the meat.

POLLED HEREFORDS. In 1900, Warren Gamorn of Iowa wrote to nearly every breeder of Herefords in the United States asking if they had any cattle which did not develop horns. He succeeded in securing 13 head of purebred Herefords that were polled. From this small beginning the polled Hereford breed was established.

The breed has become very popular among breeders who desire the Hereford form but dislike the horns. Polled Herefords originating from registered Hereford stock may be registered in both breed associations.

In form and characteristics, the polled Herefords closely resemble their ancestors, the Herefords. The distinguishing difference is the absence of horns.

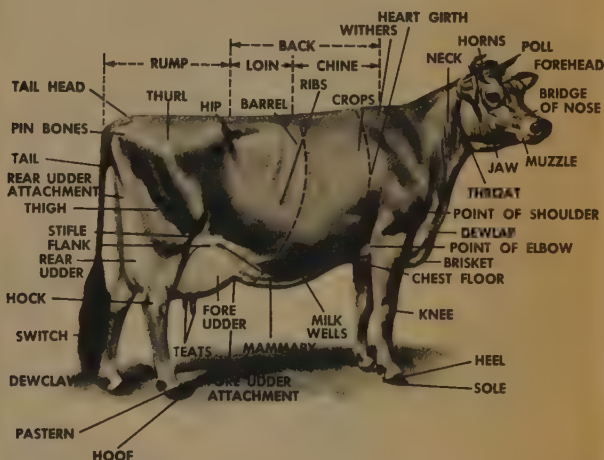
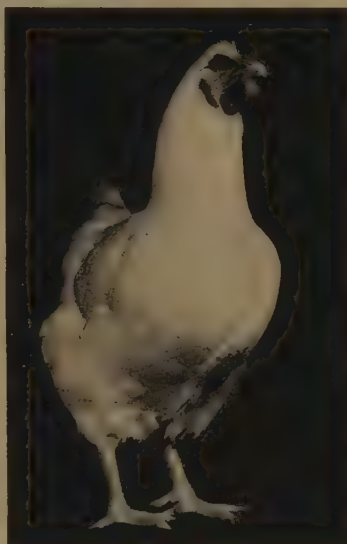
PASTURES. The natural feed for dairy cattle is pasture. The pasture season should be made as long as possible. Fall-seeded rye provides early spring pasture, in areas where it is adapted, and may be followed by native grasses, or a legume and grass mixture. Sudan grass, or a sudan grass and soybean combination, makes an excellent summer and early fall pasture. In general, a legume and grass combination provides more grazing per acre of highly nutritious forage than any other common pasture crop. Pastures recommended for beef cattle are suitable for dairy cattle.



Livestock and Poultry Production
Bundy and Diggins
1968; 732 pp.

\$10.92 postpaid

from:
Prentice-Hall, Inc.
Englewood Cliffs, New Jersey 07632
or **WHOLE EARTH CATALOG**



Walter T. Kelly Bee Supply Super Market

mail order bee supplies

Catalog
\$.75

from:
Walter T. Kelly Company
Clarkson, Kentucky 52726



ABC and XYZ of Bee Culture

The first edition of this authoritative book was written in 1877 by Mr. A. I. Root. The current edition, the 33rd, is edited by Mr. E. R. Root, with the help of H. H. Root and J. A. Root. You get the picture.

We've been told by several people that bee-keeping is one of the easiest ways to make extra money with little effort and a certain amount of down-home adventure. If you are walt you eat, food from flowers is hard to beat.

From whatever standpoint—commercial, nostalgic, or amateur scientific—this is a fascinating and useful book. The Roots also have a catalog of bee supplies, a beginner's book (Starting Right With Bees), and a magazine (Gleanings in Bee Culture)—monthly, \$3.00 per year.

-SB
[Suggested by Tassajara Zen Center]

ABC and XYZ of Bee Culture
1877 . . . 1966; 712 pp.

\$5.50 postpaid from A. I. Root
or **WHOLE EARTH CATALOG**

Starting Right With Bees
100 pp.

\$1.00 postpaid from A. I. Root
or **WHOLE EARTH CATALOG**

Catalog
free

from:
A. I. Root Company
Medina, Ohio 44256

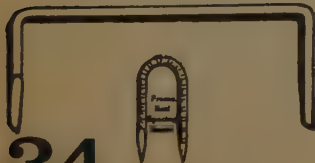
WOODMAN'S NEW BINGHAM SMOKERS

Woodman's NEW BINGHAM smokers have been on the market for over 60 years and are preferred by many. The larger size has enormous capacity, yet is light in weight. We do not recommend the 3 1/2 x 7" size to beginners but a few older beekeepers use this size.



Staples

Super Springs



Cat. No. 181. Super Springs are used with comb honey supers to hold fittings tightly together. Weight per 100, 2 pounds. **\$2.50**
Per 100
Less than 100 4¢ Each



Four stages in the development of the honey bee: a, egg; b, young larva; c, old larva; d, pupa. From "Beekeeping" by E. F. Phillips.

Whole Wheat Honey Bran Bread—One and 1/2 cups potato water, 1/2 cup cooking oil (Mazola), 3/4 cup honey, 1 1/2 teaspoons salt, 1 1/2 cups lukewarm water, 2 cakes of granulated yeast, 4 cups of sifted white flour, 4 cups whole wheat flour, and 1 cup bran. Put one medium-sized potato and water in which it was cooked through a sieve. This should measure 1 1/2 cups. Add cooking oil, honey, and salt to the hot potato water. Cool to lukewarm and add the yeast which has been softened in the lukewarm water. Stir well to mix. Then stir into the flours and bran which have been combined in a large bowl or pan. Mix well. Knead until smooth and elastic. Place in a greased bowl, cover and let rise until double in bulk. Punch down, turn over, and let rise again. Mold into 3 loaves; place in well greased loaf pans and let rise until double in bulk. Bake in a moderate oven, 350 degrees F., for one hour; Remove from pans at once and place on a wire rack to cool. As a rule, homemade bread is not very good for toasting purposes. This particular honey bread is one which proves the exception to this rule. Sliced thick or thin and toasted it's delicious!

Goat Husbandry

An interesting book but in browsing through it, looking for key information, I realized that the free pamphlet, Your Dairy Goat, available at an Agricultural Extension office, has all the necessary immediate information needed by the individual, or community to go into the home goat business. The price of the book will, in many parts of the country, buy a goat.

Goat owners are a lot like horse traders. Be careful. Seek out experienced advice. If possible, have someone whose opinion you trust along with you when buying a goat. If you are paying fifty dollars or more, as is sometimes necessary, for your goat, invest in a vet's inspection and opinion if at all possible.

My preference is unquestionably Toggenburg. A three year old doe whose milking and kidding record is available is most desirable. Toggenburg crosses cut the price in half and by selecting bucks you can breed back to almost pure strain in a few years. (Toggenburg on the doe's side as that's who determines milk production.) A last word: if you are in the market for goats you probably already like them. They are almost all beautiful animals. When I first got into goats I bought a nice three year old Alpine doe just drying up. She looked like an antelope. Beautiful. She did dry up shortly. I bred her, fed her for five months. She had trouble kidding and her milk production was poor. Nothing I could do in the way of feeding and milk schedules helped. I still had a beautiful pet goat but awfully expensive. Somehow I like the good milkers more.

[Reviewed by Steve Katona]



THE WORLD GOAT POPULATION 1963
One dot=one million goats



The goatherd who knows his flock and range can lead on the first stage or two of their wanderings and as soon as they are all busy at a popular stop he can quietly slip away. The flock queen will call him when she is ready to move on, but if he has disappeared she will take the lead herself. This tactic works well in broken wooded country; but in open country the delinquent leader is caught in the act of escape and the whole flock comes scampering after him.

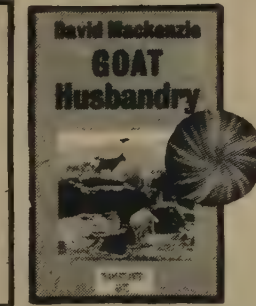
Under such conditions the goatherd must use plain language to tell his flock when he has ceased to be their king billy. Mere rudeness won't suffice; king billy's manners are not of the best; a push and a grunt and a show of displeasure convey his warning to the flock to obey and follow him more closely. But king billy doesn't throw sticks or stones; the performance of such an act is a special characteristic of man and monkey which is peculiarly repulsive to all other species. So long as it is carried out calmly and ceremonially, so as not to be mistaken for mere rudeness, the flock will turn their backs on the goatherd, will go their way and leave him to his. The popular use of effeminate males has produced flocks of half-witted goats which may be incapable of finding amongst themselves a flock queen of sufficient independence of character to accept even so broad a hint as the thrown stick. If such a flock refuses to be content without a king billy to lead them, the only cure is to give them a real one.

But the introduction of a male goat into the flock on range brings into close perspective a problem that is inherent in the relationship between the flock and the goatherd. Because the only way of controlling the flock is to be accepted as a member of it, the goatherd's position is always open to the same challenge as that which faces the flock queen and the king billy. Occasionally the flock queen may challenge his right to lead; an adult male with the flock on free range will always make the attempt at least once. Honeyed words and bribery are wasted on a rebellious goat. A good sound trouncing is needed; not just an angry slap, but a stand-up fight and a walloping thorough defeat.



Your Dairy Goat free

from:
University of California
Agricultural Extension Service
Public Service Office
141 Administration Building
University of California
Davis, California 95616



Goat Husbandry David Mackenzie 1967; 368 pp.

\$15.75 postpaid

from:
Transatlantic Arts
Trade Dept.
North Village Green
Levittown, L. I., N. Y. 11756
or WHOLE EARTH CATALOG

Because goats are dairy animals, they must have dairy characteristics. Check to see that the doe has a feminine head, thin neck, sharp withers, well-defined spine or backbone and hips, thin thighs, and rather fine bones. The skin should be thin and fine over the ribs. Look for a wide spring of rib and roomy barrel. This will help you to know how much feed she can eat. The constitution, or physical nature, is an important item shown by the depth and width of the chest. It's important to look at the udder, too. It should be large when full of milk and very much smaller when empty. A large udder does not always mean a high milk yield.



* Dairy Goat Journal

monthly goat gab, latest in goat gear, goats for sale, goat cheese recipes, goatkeepers' classifieds, get your goat.

-jd

Dairy Goat Journal

Kent Leach, editor

\$3.00 per year (monthly)

from:
Dairy Goat Journal
P.O. Box 836
Columbia, Missouri 65201

* Rabbits

Here are some good books on rabbit raising. If you raise rabbits you can eat them and tan the hides for clothes to keep you warm.

[Suggested and Reviewed by Martin K. Rorapaugh]



The Purina Rabbit Book, available from your feed store or probably from Ralston Purina Company, Checkerboard Square, St. Louis Mo. 63199. This one is free (they might appreciate postage if you send for it I don't know) and gives all the information you need if you just want to eat the rabbits. It gives cage dimensions, good breeding practices (for the rabbits), and feeding suggestions. The best part of this little book is that it gives a calendar system so that you can keep track of when to do what. It's a good easy thing to follow. The same people also offer pamphlets on rabbit diseases, and cage plans.

Raising Rabbits Farmers Bulletin No. 2131, U.S. Dept of Agriculture. Available from Superintendent of Documents, U.S. Govt. Printing Office, Washington, D.C. 20402 cost 15 cents. Covers basics but doesn't cover diseases or tanning hides. Its cheap but not much better than the free one above.

Commercial Rabbit Raising Agricultural Handbook No. 309, U.S. Dept. of Agriculture. Available from Superintendent of Documents for 30 cents. This is a good cheap book. It covers all the basics like how to select a breed, feed and manage the herd etc. It also tells how to use the manure (as if you didn't know) and cure rabbit skins. This is a goodie for the price.

Domestic Rabbit Production by George S. Templeton (He's a real genuine expert). If you want the best and don't mind paying money this is it. It is complete. Covers everything the others cover plus rabbit diseases (thorough and easy to follow), tanning the hides, rabbit recipes, and get this, quantity recipes adjusted for 25, 50 or 100 souls. Its published by the Interstate Printers & Publishers, Inc, Danville, Illinois.

Domestic Rabbit Production George S. Templeton

\$6.75 postpaid

from:
19-27 North Jackson St
Danville, Illinois 61832

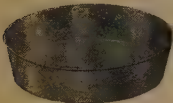


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CONVERT GOAT MILK INTO YOGURT for health and profit. The CULTURIZER DOES IT ALL. Our Yogurt CULTURE lasts a year! Finest Old World Flavor. Facts FREE! Daisyfresh Yogurt Co., Box 2707 GG, Santa Cruz, Calif. 95060.

Handi Goat Pan for Feed or Water



One Piece — No Seams, Extra Heavy. Goats won't knock it apart. Wide so that it is hard to upset, and spill feed or water. Ideal for other

Live Stock use, also can be used in the Home for Fruits, Vegetables and Eggs. 6 1/2" Handi-Pan Diameter top 16 3/4 inches, bottom 15 inches. Weighs 3 lbs. — \$3.25 each Postpaid, lots of 6—\$3.00 each Postpaid.

Handi Goat Feed or Water Trough



For Feed or Water, 1 1/2" gauge steel, Cross braces, welded to trough for extra strength, and heavy wear, one

brace on 2 foot trough, 12 inches wide, trough inside 10 5/8 inches, 4 1/2 inches deep. 9016—Trough—Weight 9 1/2 lbs. \$8.75 Postpaid
Other equipment for other Livestock. State Requirements. Terms—Remit by Check, Money Order, Personal Checks allow for 10 days Clearance. C.O.D. Orders accepted, but there is a service charge of \$1.00.

John H. Thiele

P. O. BOX 62-G WARWICK, NEW YORK 10990

Breaking and Training the Stock Horse

Most books on, and methods of, training the western type riding horse are a collection of anecdotal tricks and clever gimmicks with which you may force or frighten the horse into doing what you have in mind. Mr. Williamson's is not.

It is a concise, orderly, and complete explanation of how, with minimum paraphernalia, to condition the horse to interpret the most subtle movements and pressures of the legs, hands, and entire body and to turn these commands into movement with the freedom and ease of an unmounted horse. A horse well trained by this method can easily be ridden without a bridle. Williamson's method develops discipline and sensitivity in the trainer as well as in the horse.

Although intended primarily for the stock horse, its basic training principles can be applied to the training of any type of riding horse, including hunter, jumper, gaited, and high school dressage. There are also chapters on horsemanship, riding, and riding a bucking horse.

Mr. Williamson has been occupied with horses all of his life—the Cavalry in the First World War, running pack outfits, catching wild horses, and training and exhibiting. He now conducts a school in horse training and horsemanship in Hamilton, Montana.

[Suggested and reviewed by Paul Bandy]

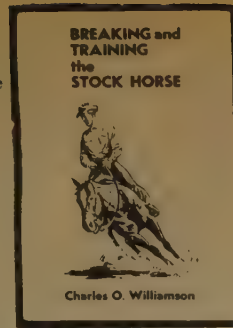
Breaking and Training the Stock Horse

Charles O. Williamson
1950; 123 pp.

\$7.50 postpaid

from:
Charles O. Williamson
Hamilton, Montana 59840

or WHOLE EARTH CATALOG



The running W

Contrary to the usual idea little equipment is necessary in the proper training of saddle horses.

A horse responds to training to relieve pressure on some part of his body. He follows you when you are leading him to relieve pressure on his poll. He goes forward when the legs are used to relieve pressure on his sides. He stops or slows when the reins are pulled backward to relieve pressure on his mouth. When he does what you want, if you do not slack and relieve pressure, he has no incentive to do the same thing again for you and finally gives up in disgust and carries you about in a listless or even defiant manner because he must.



Work on the longe line. Teaching the green horse to listen to and obey the trainer and not to fear articles tied to the saddle.

Horseshoeing

where i grew up they didn't shoe horses, ground was so sandy that they didn't need to. horseshoes were used for pitching at stakes after the picnic. this book tells how to shoe horses.

-jd

[Suggested by Roberta Becker Marshall]

Horseshoeing

A. Lungwitz
1966; 216pp.

\$6.00 postpaid

from:
Oregon State University Press
Corvallis, Oregon 97331

The object of shoeing is,—

1. To protect the hoof from excessive wear, and thus render the horse continuously serviceable upon our hard roads.
2. To prevent slipping and falling during the winter season.
3. To so far remove the disadvantages of faulty positions of the limbs that horses may render good service, and, in some cases,
4. To cure or improve diseased or defective hoofs or feet.

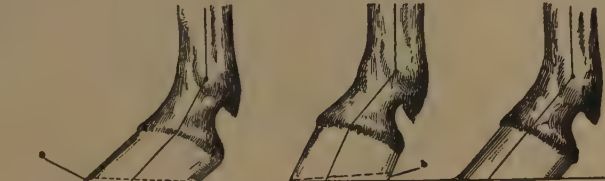
Horseshoeing, though apparently simple, involves many difficulties, owing to the fact that the hoof is not an unchanging body, but varies much with respect to form, growth, quality, and elasticity. Furthermore, there are such great differences in the character of ground-surfaces and in the nature of horses' work that shoeing which is not performed with great ability and care induces disease and makes horses lame.



HORSESHOEING



A right front shoe with nailless and narrow inner branch for a base-wide hoof. Suitable for horses that strike anywhere from inner toe back to the quarter.



An untrimmed hoof with an excess of horn (a) at the toe which breaks the foot axis backward.

An untrimmed hoof with an excess of horn (b) at the heels, which breaks the foot axis forward.

Hoof dressed and foot axis straightened by removing excess of horn below dotted lines in the two preceding illustrations.



Proper position for holding a front foot.

Veterinary Notes for Horse Owners

an old standard, semi-technical, exhaustive, reference guide. i can't see much application for the book if you don't own a horse, but if you do, it could save you a few hundred dollars in vet bills.

-jd

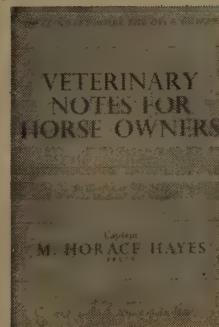
[Suggested by Peter Ratner]

Veterinary Notes for Horse Owners

M. Horace Hayes
1877; 1970; 656pp.

\$12.50 postpaid

from:
Arco Publishing Company
219 Park Avenue South
New York, New York 10003



The term 'vaccine' is applied to material, in the form of living or dead organisms, viruses, toxic products, or anatoxins, which is inoculated into an animal for the purpose of producing resistance to a particular disease. The term vaccination is now used to include all the agents which are employed to produce an active immunity. The peculiarities of an active immunity are (a) that the agents used stimulate the tissues of the body to produce antibodies, (b) it takes some time to become set up, (c) in its production there may be a certain amount of risk, and (d) its effects are usually lasting. An active immunity is sometimes induced by the simultaneous use of an anti-serum and virus or organism, but the proportion of these agents must be carefully balanced on account of the two dangers: (a) the serum may too quickly neutralize the virus and set up only temporary immunity, and (b) the virus may set up disease which the serum is unable to counteract. There are two phases during the producing of immunity: the negative phase, in which the animal is more susceptible than normal, and the positive phase, when immunity is appearing. A second dose of vaccine must not be used during the negative phase, but may be when the positive phase has set in.



FIG. 69. Examination of the hocks from each shoulder. The near (left) hock is 'spavined'.



FIG. 71. The incisor teeth at birth. The central nippers have just erupted.



FIG. 73. Two years.

Working mares are more apt to conceive than the fat and idle, while a working stallion will often succeed in impregnating mares which have proved barren to several successive sires; this is one of the reasons why farmers use an indifferent sire in their own neighbourhood, instead of a high-priced animal who leaves no foals behind him. The method of trying a mare over a gate, and the conclusions arrived at, are not always reliable, as in the case of a mare the writer had, and for whom a suitable sire could not be found, till chancing to meet a friend's cob, he took the mare out of harness and got her covered in a neighbour's barn, much against her will, with the result that she brought a splendid foal, and 7 days afterwards conceived to another horse. The 9th day after foaling is very generally agreed to be the most successful time for impregnation, and the case mentioned is to show how great this is a departure from the received traditions of breeders is yet consistent with impregnation. This little mare never at any time showed the ordinary signs of being in use, on both occasions resented the visit of the sire, was at no other time stunted, yet proved a most jealous mother and brought up both foals. The mere fact of a stallion coming through the village was the sole reason of her being served on the 7th day.

★ **Veterinary Guide for Farmers**

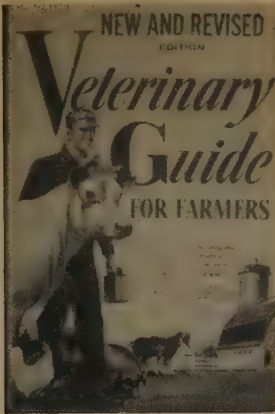
how to keep them healthy down on the farm.

-jd

Veterinary Guide for Farmers
G.W. Stam
1963, 69; 384pp.

\$6.95 postpaid

from:
Hawthorn Books, Inc.
70 Fifth Avenue
New York, New York 10011
or **WHOLE EARTH CATALOG**



FEVER AS A SYMPTOM

The temperature of an animal's body rises above normal when more heat is produced than is given off. This happens naturally under a number of conditions, such as during exercise, after eating, in very hot weather and among cows in the later stages of pregnancy.

When the temperature of an animal rises without apparent reason, it is generally caused by illness or injury. That is why the presence of fever is of great importance in the diagnosis of disease, especially those that affect the internal organs.

An increase in temperature is not the only symptom of fever. Sometimes when the temperature goes up rapidly, chills may occur, and these in turn are accompanied by trembling muscles, cold skin, erect hair coat and arched back.

HERE'S THE WAY MANY SURGEONS TIE A KNOT

Right: This is a good way to tie a knot, especially when suture material is short or slippery. Instead of using forceps, as shown, the operator can use a pair of long-nose pliers.



Left: The suture is wound around the forceps, taking care not to disturb the stitch.

Right: The end of the suture is pulled through the loop.



Left: After tightening the first part of the knot, make the second loop by winding the suture around the forceps in the opposite direction. Then complete the knot by winding the third loop like the first, as shown on page 249.

Chills do not occur with all fevers but with disease where microbes or toxins are in the blood stream. Among them are anthrax, shipping fever and maladies accompanied by pus formation. Once the body becomes used to a higher temperature, chills cease. But they will come back if the animal is taken to a colder place.

Fever brings with it a more rapid breathing and heart beat. At the same time the pulse becomes weaker. The more rapid the pulse, the higher the fever.

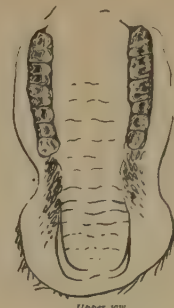
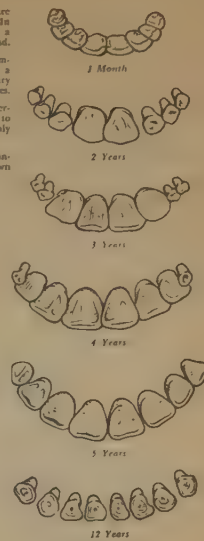
HOW TO TELL THE AGE OF A COW

Mature cattle have 32 teeth of which eight are incisors. All incisors are on the lower jaw. In place of incisors on the upper jaw, there is a thick layer of hard palate, called the dental pad.

At birth, a calf has two or more of the temporary or first set of incisor teeth. Within a month, all eight have appeared. These temporary teeth are gradually replaced by permanent ones.

At the age of five years, cattle have all permanent incisors. From then on, teeth start to wear down until at the age of 12 years only stumps remain.

The ages at which the various temporary incisors are replaced by permanent ones are shown at the right.



A strange thing about fever is that the legs, ears, nose and base of the horns in cattle and sheep become alternately hot and cold even though the internal temperature of the animals remains uniform.

One ear may be hot while the other is cold. Later these conditions may be reversed, or both ears may be hot or both cold. The same thing holds true of legs and other extremities.

Other signs of fever are dry muzzles and snouts, loss of appetite, indigestion, constipation, increased thirst, decreased urination and mental depression.

★ **Veterinary Supplies**

three companies selling serums, vaccines, instruments, and drugs, by mail.

-jd

Catalog free

from:
Kansas City Vaccine Co.
Stock Yards
Kansas City, Mo. 64102

Catalog free

from:
United Pharmaceutical Company
8366 LaMesa Blvd.
LaMesa, California 92041

Catalog free

from:
Eastern States Serum Co.
1727 Harden Street
Columbia, South Carolina 29204

PIPERAZINE WORMING LIQUID



Mix directly into feed or drinking water for effective large Roundworm control. Excellent for breeding bitches to prevent roundworm infestations in newborn puppies.

	Retail	Wholesale
Per 16 oz. bottle	\$ 2.25	\$ 1.50

TERRAMYCIN SOLUBLE POWDER



(25 Grams Per Pound)
A potent highly concentrated antibiotic in a powder form for mixing in the individual ration or dissolve in water or milk, for oral administration.
Dosage for Treatment: 1/2 teaspoonful for each 5 lbs. of body weight per day for 3 to 4 days.

	Retail	Wholesale
Packet of 6 1/4 oz.	\$ 4.47	\$ 2.50
1 lb. (or 3-6 1/4 oz. packets)	15.16	7.45



Rid lice in winter
Flies in summer

the newest addition to our line. Wt., complete, 26 lbs. \$26.95

BALLING GUN



Balling Gun. Takes 00 and 000 capsule. All brass construction—nickel plated. One piece head. Length 12 inches.

Wholesale \$1.60

Pig Tooth Nipper



Chrome Plated
Special forged steel with well sharpened blades. Spring Loaded 4 1/4" long.
(wt. 7 oz.) \$2.60

Horses, Hitches and Rocky Trails

Right. You got your land fifteen miles into nowhere from the nearest roadhead. You deplore noisy trail bikes and ATVs, and you can't afford a helicopter. Then you're into packing. Joe Back is a packer, and talker, and illustrator, and he can help you.

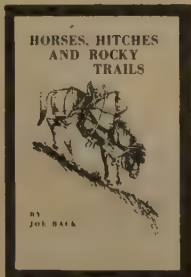
-SB

Horses, Hitches and Rocky Trails
Joe Back
1959; 117 pp.

\$4.00 postpaid

from:
Swallow Press
1139 South Wabash Avenue
Chicago, Illinois 60605

or **WHOLE EARTH CATALOG**

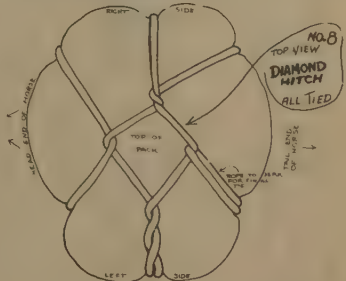
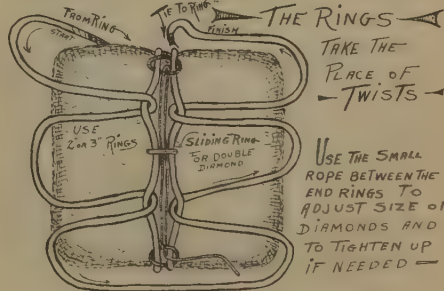


If you can, pick a good short-backed horse, thick in the body, with strong sturdy legs. A long-pasterned horse cripples up faster than one with short pasterns. You'll find a lot of thin, spindly-legged ponies that'll pack OK but they don't stand up well. Too heavy and too big horses slow you down and are not agile. About a 1200 lb. horse is just right for weight, although lots of smaller horses are used and stay right in the ring. The Morgan type is the boy if you can pick and choose, but don't get too choosy or we'll never get to camp.

If you don't balance each load, it's your hard luck. The handiest and cheapest tool you can buy is a fairly accurate spring or other scale that will take weights up to 100 or 150 pounds. It will last for years and you'll always use it. Some people like the style with a hook at the bottom and a ring or handle at the top. Seven or eight bucks for one will save you and your outfit a million dollars worth of grief.

Balance the two sides of each pack, being sure they weigh the same, whether they're panniers, side packs of any kind, mantled cargo, bedrolls, tents, or any daggoned ordinary pack you load.

Manila is the stuff. Most people, including me, like good manila rope for both pack and sling ropes (sling ropes 3/8 inch diameter, lash ropes 5/8 or sometimes 3/4 inch diameter: a good many times you will use a lash rope also for a picket rope, and will want it big for safety). Of course, you can use sisal, which is cheaper, and I think much weaker and less durable than manila. Cotton is good, but boy! when she gets wet and frozen you need a hacksaw blade for your knots. Nylon is a billionaire's dream, and say, Bud, try to splice one! Besides, you've seen the ads praising the stretch in milady's nylons; it's so, it never stops, you can't keep it tight.



IF YOU DON'T TAKE ALONG A SHOVEL
THAT'S YOUR HARD LUCK



The Organic Gardening Books

When I first started gardening three seasons ago, I considered *How to Grow Vegetables and Fruits* by the Organic Method as the first and last word on raising your own food. And I still believe that if you intend to own only one gardening book, that's the one to have. In addition to all the facts you need about soil, compost, mulch, and most domestic fruits and vegetables grown in North America, the book contains beautiful statements by individual gardeners, and by the editors themselves, that add up to an eloquent testimony in behalf of the organic idea. It is these statements, these images of gardeners as people trying to make their very lives organic, that gives the book its strength and true distinction. It's a book to turn a person on to the organic idea in the first place, and then go on to show him in precise detail ways to put that idea into practice. The book is an indispensable guide for the beginning organic gardener.

The thing I have discovered through further reading and continued gardening, however, is that, as good as it is, *How to Grow Vegetables and Fruits* is neither the first or the last word on the subject. There's a new book out now called *Grow Your Own*, by Jeanie Darlington, that to my mind comes closer to being the first word. And two other sources, *The Encyclopedia of Organic Gardening* and all of Ruth Stout's work in general, strike me as being closer to final statements.

All I mean by "first" and "last" is that *Grow Your Own* is for gardeners who are absolutely just beginning, and not only beginning, but beginning in a city at that, right up there on the very front lines where conditions come closest to impossible; while the other sources I mentioned are for people who have had gardening experience and are out to improve upon, rather than discover, their individual methods.

Grow Your Own is by a young Berkeley, California woman who did the whole organic trip in a plot ten feet by ten feet outside her home, paid close attention to what was going on, did careful homework, and then turned it all into a lovely little paperback book. It's an extremely personal book, sort of like a letter to close friends, charming and informational. (Of ladybugs, Jeanie says: "Imagine Volkswagens humping. That's what ladybugs look like when they mate"). The first audience for *Grow Your Own* is other beginning gardeners in the San Francisco Bay region, because much of the information on soil, weather and sources of organic supplies are of a local nature. But it is by no means a purely "local" book. It's a community book, but the community Jeanie is speaking to, and for, is scattered everywhere, and geography will not greatly diminish the book's practical usefulness. As the book serves the community with facts, it also helps create it in spirit. It establishes Jeanie as a kind of hero, in that by effort she has gained the experience of a professional without sacrificing the joyous spirit of the amateur. She's a freak, but she's a competent freak, and competent freaks just may be the most important people in the entire culture at this nervous point in its development. *Grow Your Own* is a solid achievement that everybody in the community can not only benefit from, but feel proud of.

A lot of experienced gardeners find *The Encyclopedia of Organic Gardening* more useful than *How to Grow Vegetables and Fruits*, and this is understandable. Once you're deep into gardening, past the point of needing to be convinced and wanting only to get on with the work at hand, the *Encyclopedia* does stand as a handier, more efficient tool. There's no table of contents. The subjects are not laid out in categories. It's all there in alphabetical order, crabapple followed by crabgrass; tobacco followed by tomato; lima beans, lime,

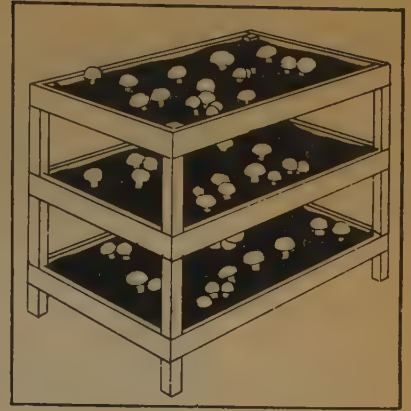
lime tree, limonium, linaria and linden. Virtually any question you'd like to ask a master gardener is anticipated and answered here; and beyond that, a lot of questions that wouldn't have occurred to you are asked on your behalf and then answered. You wind up with a lot of accidental knowledge, browsing in this volume, and that's always fun and frequently immediately useful. I can best sum up my feelings about the *Encyclopedia* by simply saying that after three seasons as a gardener, I'm about to buy a copy, instead of borrowing any more, out of an impulse to acquire literature on gardening to match my own level of competence and curiosity.

If you were to chart a course from *Grow Your Own*, through *How to Grow Vegetables and Fruits*, on into the *Encyclopedia*, you'd wind up, of course, in Ruth Stout's garden watching her ignore practically everything you just learned from all those books as she grows stuff twice as good and ten times as easily as you do. Well, not really ignoring it. Just seeming to, in the same way that your grandmother ignores the printed recipe as she sort of unconsciously mixes a lot of stuff together and throws it in a coal stove oven to make the best Sunday dinner you ever sat down to. Ruth Stout is a master gardener who's been refining her procedures for decades now. She's sort of like an elderly Zen priest, an old roshi who after years of work and study has distilled a large burden of "knowledge" into a single gem of wisdom which he renders in a single haiku. Just at the point that I felt like I was really catching on to making compost and feeling kind of proud, I found out that Mrs. Stout doesn't fool with compost anymore. Too much trouble. Doesn't fool with tools much either. Doesn't fool with anything much, actually, except mulch. Just spreads a lot of hay around, plants by poking a hole in the ground with her finger, and when it is time, goes out and picks the produce and eats it. I'm confident that if I were to do everything in my garden that she does in hers, mine would still fail while hers would flourish, simply because I'm too young and foolish to get along without some rules. It's the difference between wisdom and knowledge, between having correct information and knowing the truth. I'll be needing "the facts" for a long time to come, but Mrs. Stout assimilated all of that long ago. She just . . . does it, and her accounts of doing it are among the very best statements on organic gardening that you're likely to come across.

The thing to remember about organic gardening is that it's a movement, a national energy that since its beginnings early in the 1940's has grown into a force so potent by now that it contains serious political implications. The books I have mentioned are landmark documents. But more central to organic gardening as a movement is a monthly magazine published by the same Rodales who brought out the *Encyclopedia* and *How to Grow Vegetables and Fruits*, called *Organic Gardening and Farming*. It has occurred to me that if I were a dictator determined to control the national press, *Organic Gardening* would be the first publication I'd squash, because it is the most subversive. The whole organic movement is exquisitely subversive. I believe that organic gardeners are in the forefront of a serious effort to save the world by changing man's orientation to it, to move away from the collective, centrist, super-industrial state, toward a simpler, realer one-to-one relationship with the earth itself. Most of the current talk about "ecology" in America is simply the noise that accompanies all fads. It's obviously doomed to go the way of hula-hoops and the fifty-mile hike. The thing I like to remember is that even when all the froth has blown away, and the rhetoric of pop-ecology has drifted off to join the other forms of pollution in the sky, the gardeners are going to still be gardening. They're going to quietly go on composting and tilling and planting, and then reaping all the good things they have sown.

[Reviewed by Gurney Norman]

A Tier-Shelf Bed for Mushrooms

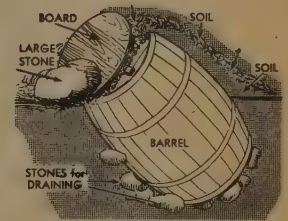


The Encyclopedia of Organic Gardening
J. I. Rodale & Staff
1968; 1145 pp.

\$10.19 postpaid

from:
Rodale Books, Inc.
33 East Minor Street
Emmaus, Pennsylvania 18049

or **WHOLE EARTH CATALOG**



A BARREL ROOT CELLAR can store all or most garden produce in a fresh state over the winter. A strong, well-made barrel should be used and cleaned carefully before being set in trench.



Grow Your Own
Jeanie Darlington
1970; 87 pp.

\$1.75 postpaid

from:
The Bookworks
2010 Seventh Street
Berkeley, California 94710

or **WHOLE EARTH CATALOG**



Hummingbird in the pineapple cage.

Chemical fertilizers put your soil on a speed trip. The normal component balance of the soil is disturbed by the availability of more plant food than can be accepted. For a short time, everything that is living in the soil gets pushed way beyond its normal rhythm of life and of course the humus stores are depleted. A chemically treated soil is almost devoid of soil bacteria and earthworms. The structural strength of the soil is lost, and hardpans form that make it hard for water to penetrate deeply. This causes dust storm and erosion problems.

A forest is an ideal example of good soil structure. The leaves, twigs, and everything else that falls to the ground, act as a mulch and gradually decay, leaving a spongy rich layer of humus just below the surface. It is well balanced in all the nutrients necessary to the soil below and to all the living things in it. All the reserves are there mainly in an insoluble form, and they are gradually released by the action of the weather, the bacteria, the earthworms, and all the other micro-organisms in the soil.

Birds are good friends to the organic gardener. If you feed them seed this winter, they'll stick around and eat their share of bug kingdom baddies next summer.

Sweet Peas. The climbing variety, 5-7 feet, is great for hiding a wall or making a screen. Use trellis netting.

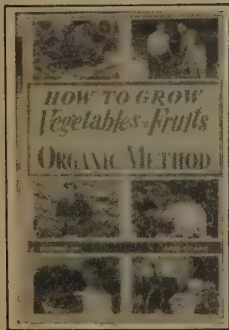
Nasturtiums. Great for hot, dry, poor soil areas. The leaves, which are peppery and high in Vitamin C, taste great in salads or cream cheese sandwiches. The flowers are good to eat too, and the green seed pods can be pickled in vinegar with a touch of mace, allspice, 1 clove and salt. They resemble capers.

The first step in pest control is to have healthy plants growing in fertile soil that is rich in organic matter. Then they are more resistant to virus and to insect invasion. Step Two: Restore the balance of nature. The reason there are so many aphids in relation to other bugs, is that DDT has wiped out all their predators. So encourage and import predators into your garden. Ladybugs, praying mantids, ichneumon flies, lacewing flies, toads, lizards and birds all like to eat a wide variety of insects.

Step three: Outwit the insects. Here's where your ingenuity comes into a action. Companionate planting is the first thing to consider. The idea is that certain smelly flowers and herbs repel insects when planted next to susceptible plants. The flowers: marigold, calendula, nasturtium, geranium and chrysanthemum. The herbs: tansy, wormwood, chives, onions, garlic, sage, savory, coriander and hemp.



Chicken wire support for Tomatoes



**How to Grow Vegetables and Fruits
by the Organic Method**
J. I. Rodale & Staff, editors
1961; 926 pp.

\$10.19 postpaid

from:
Rodale Books, Inc.
33 East Minor Street
Emmaus, Pennsylvania 18049

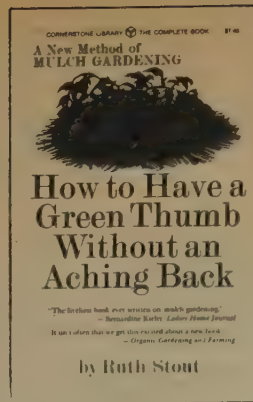
or WHOLE EARTH CATALOG

**How to Have a Green Thumb
Without an Aching Back**
Ruth Stout
1955, 70; 160 pp.

\$1.45 postpaid

from:
Cornerstone Library Publications
630 Fifth Avenue
New York, New York 10020

or WHOLE EARTH CATALOG



The dirt made by building a compost pile is a very desirable thing to have, but the man who goes through all the antics necessary to make this pile is to be pitied unless he has a great deal of time and energy he wouldn't know what to do with otherwise. He is like a man, let us say, who is suffering from a physical ailment and knows of a plant, growing on a far mountain, which will cure him. He makes the long, hard journey, finds the plant and is cured.

He is well satisfied until he returns home and finds that this plant also grows in his back yard. He had no way of knowing that until he saw the plant on the mountain and compared the two.

And so it is with those who build compost piles; they don't know any better way to make rich dirt. Now you are hearing of an easier, better way; you need no longer climb a mountain for your compost. It is yours for a small fraction of that labor.

METHODS OF TRAINING BLACKBERRY PLANTS



1. Trained to a stake.

2. Two-arm system trained to one wire.



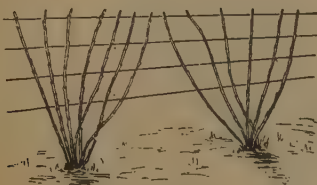
3. Wreath or weave system—2 wires.

4. Loop system on 2 wires.

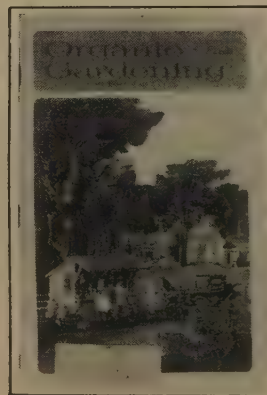


5. Semi-loop system.

6. Four-arm system.



7. Fan system.



Organic Gardening and Farming

\$5.85 for one year, monthly
\$6.00 per copy

from:
Rodale Books, Inc.
33 East Minor Street
Emmaus, Pennsylvania 18049

The Amazon, however, has disappointed settlers in the past, and is likely to continue to cause immense problems, despite the technological tricks of advanced scientists... The potential Amazon farmer looks at "a veritable wall of brown-green vines and emerald-colored trees reaching 250 feet into the blue sky." Seldom is such abundant production of plant matter seen anywhere else in the world. The new farmer clears the jungle (at considerable expense) and finds that the land produces good crops for a few years. But then comes... a "shocking discovery." The Amazon land, after a few seasons of direct exposure to the relentless tropical rains, *hardens up like a brick*. Without the protective jungle cover as an umbrella, the basic life elements in the soil are leached out. Potassium, iron, calcium, magnesium, and aluminum are washed away.



The stone wall that neighbors helped build is to the right behind the iris in the rock garden. Six years after the project started, the author writes that she is "still hauling stones... but it's worth it!"

Uses Manure Both as Fertilizer and Medicine

To keep my flower garden looking good, I use another natural resource, manure, both as a fertilizer and a medicine for every plant in our yard. I prefer horse manure for its light texture, and it makes a very nice mulch when dry. If a plant looks sick, it gets a dose of manure tea, and a new mulch of manure. I have found this a sure cure in our yard for rot in iris rhizomes, thrips in glads, and scale in lilacs. I haven't lost a birch tree since I started to mulch them with manure.

Seeds and Trees

Seeds, Catalogs, Trees

a seed is a little plant in a box with its lunch.
write to these addresses for free catalogs and brochures.

-jd



W. Atlee Burpee Co.
Riverside, California 92502

Not organic, but about the most complete vegetable and flower seed catalogue. Very fast and efficient service.

Joseph Harris Company Inc.
Moreton Farm
Rochester, New York 14624

in reference to harris seed company

in addition to their catalog, harris gives away a nice little manual called "care of the Home garden," tells you when to plant their seeds, ask for it.

Vegetables and flower seeds
Natural Development Company
Bainbridge, Pennsylvania 17502

Organic fertilizers and insecticides. Tri-excel DS, a non-poisonous plant protectant for flowers, vegetables, berries, trees. It's made of ground-up flowers, resins, etc., and it works. The best all-around seed source.

Stark Brothers' Nurseries & Orchards
Louisiana, Missouri 63353

C.M. Stark named the delicious apple. They now offer a line of "low maintenance" trees, organic by any other name.

Stokes Seeds, Inc.
Box 15, Ellicott Street Station
Buffalo, New York 14205

Large complete catalogue, similar to Burpee.

Organic Seeds
Vita Green Farms
P.O. Box 878
Vista, Ca. 92803

"Untreated, natural, old-fashioned, unhybridized, uncrossed." Several gardeners report that these seeds have not germinated as well as hybrid types.

Clyde Robin

Wildflower & Wild Tree Seeds. Gardeners and food growers—and maybe hunters and gatherers too—should check out Clyde Robin's seed catalog. It offers not only wildflowers, which grow easily without too much attention, but also many weird and unusual seeds of flowers, trees, shrubs, herbs, and vegetables, plus occasional information on their culture, appearance, uses, etc.

The Special Roadside Mixture grows in places where you thought only weeds would, and makes a really gaudy show in early Summer. After it has bloomed you cut it all down to the ground and the California poppies grow back and flower again. Grow catnip and turn your cats on—it grows easily from seed but you have to start the seedlings inside a small protective wire cage (which the plants will grow up through and out of) otherwise those dope-crazed cats rub out the young plants entirely.

[Suggested and Reviewed by David Noton]



Catalog
\$.50

from:
Clyde Robin
P.O. Box 2091
Castro Valley, Ca. 94546

Agricultural Extension Services

Each of the 50 states provides agricultural advice and services through county or area offices of their Agricultural Extension Service. These services are twofold:

1. Farm Advisors, extension agents, or county agents—depending on which state you live in, staff personnel under one of the above names are available for consultation or house calls in any area or agriculture or related fields such as turf care, home gardening, livestock, pest or rodent control and soil & water conservation to name a few. Most staffs usually also have a home economist.
2. Publications—a wide range of publications are also available through the AES or the U.S. Dept. of Agriculture. Some are for sale, but most are free. They are non-scientific & are written for the lay person. These publications cover a wide range of subjects of interest in commercial agriculture, home gardening or homemaking. Most states will have a catalog of their publications, such as the two from the University of California. You may either order publications by mail or pick them up directly at the county office. If you have specific questions, it is often best to pick up brochures at the county office so that you may consult the farm adviser at the same time. Agricultural Extension Offices are normally listed in the phone book under the county listings.

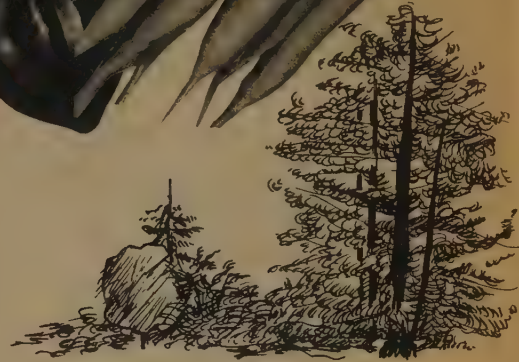
[Reviewed by Ed Johnson]

Agricultural Publications

free

from:
local county office

or, by mail:
Agricultural Publications
207 University Hall
University of California
Berkeley, Ca. 94720



Pine, Cypress, Fir, Redwoods, Eucalyptus

Davis Headquarters Forest Nursery, Rte. 1, Box 1410, Davis, California 95616. The state of California's distribution center for trees for reforestation, erosion, windbreaks. A long form of course, but they mail pines, cypress, fir, redwoods, eucalyptus in quantities of 100-1,000 or more. One year old bare-root trees (4-10" height) are as little as \$10 per 500.



Hydroponics

growing things without soil . . . remember the avacado pit suspended on four toothpicks over the glass of water on the top of the refrigerator? or half a potato scumming away in some dark corner? that all has a name. here's a complete of short booklets on hydroponics.

-jd

[Suggested by James J. Berryhill]

Hydroponic Culture of Vegetable Crops

M.E. Marvel

free

from:
University of Illinois
College of Agriculture
Extension Service in Agriculture
and Home Economics
Urbana, Illinois 61801

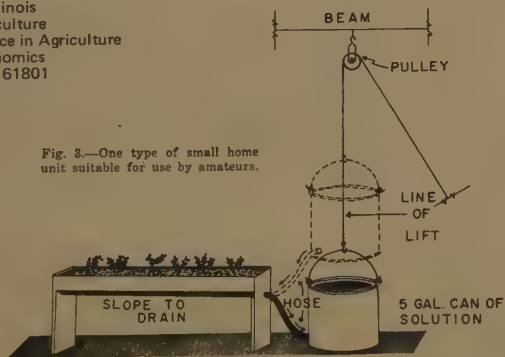
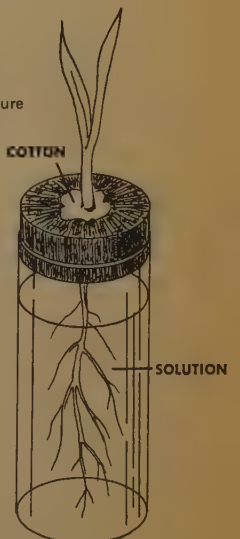


Fig. 3.—One type of small home unit suitable for use by amateurs.

Hydroponics as a Hobby

free

from:
University of Illinois
College of Agriculture
Extension Service in Agriculture
and Home Economics
Urbana, Illinois 61801



A simple method for growing plants in solution.

*** A Key to the American Psilocybin Mushroom**

magic mushroom information, not found in normal mushroom guides.

-jd



A Key to the Psilocybin Mushroom
Leonard Enos
1970; 79pp.

\$5.00 postpaid

from:
Church of the One Sermon
8135 Lincoln Street
Lemon Grove, California 92045

or **WHOLE EARTH CATALOG**



Psilocybe quebecensis



Copelandia cyanescens



Panaeolina foenicicii

All but one of the species have revealed an interesting and striking chemical characteristic that is very constant in fresh specimens. When the fruit are scratched, bruised by handling, or injured in any way they stain blue, or, if the surface color is yellowish, green or greenish blue. This harmless phenomenon is apparently caused by the oxidation of an enzyme in conjunction with the psilocybin and is a main point of identification. Certain chemical reagents are known to accelerate this bluing. The best, of these indicators, p-methylaminophenol sulphate or metol, gives a constant and strongly positive reaction on the flesh of the stem, becoming very deep violet within 1-30 minutes. This chemical, which is in crystal form, is inexpensive and can be prepared from any chemical house or photographic shop that handles darkroom supplies. Metol will dissolve in about 20 times its weight of distilled water, and the solution must be used immediately since it is unstable. A canteen of distilled water and a small plastic bottle are all the tools needed to make up the solution in the field. Be sure to shake the solution vigorously to shorten the dissolving time.

When likely looking specimens are found, check the habit and the habitat before removing them. Habit refers to the way they're growing, scattered, grouped or clustered, and habitat to their immediate environment. It may be necessary to clear away debris from the base for better visibility. After this environmental observation carefully remove a specimen, base and all, with a hunting knife or other similar implement. If the cap is to be used for starting cultures it would be a good idea to grasp only the stem during removal and physical examination. Remove any dirt or debris from the surface with a sterile Q-tip not with your fingers or breath. These precautions are intended to prevent injury which would expose the flesh and also to avoid contamination by your own bacteria. If the physical characteristics match the description close enough to warrant testing, separate the stem from the cap with a small pair of scissors. Hold upside down and cut as close to the gills as possible, letting the cap drop into a clean baggie. After sealing the cap up, cut the stem in two and place each half in a separate baggie. The metol solution is now made up and a small amount added to the baggie containing the upper half. Crush the stem from the outside of the baggie to insure thorough penetration by the metol. The lower half of the stem, which should have some mycelium adhering to it, is also crushed. This half is to be observed for development of the bluing phenomenon. This latter step can be disregarded if bluing is already present. Even though metol gives a good reaction, this indicator should only be considered a double check. Unless the natural bluing reaction, which takes longer to develop, can also be obtained or is already present it is strongly suggested that the specimen in question be discarded, even if it fits one of the descriptions listed.



Psilocybe caeruleus



Psilocybe cubensis
var. *cyanescens*

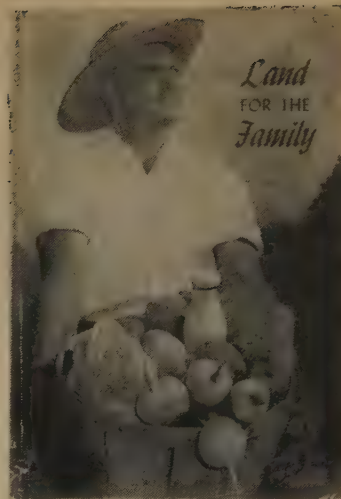
*** Land for the Family**

there are 130 copies of this in existence, in print, that is, at the publishers and not sold yet. we asked them to reprint, but they didn't think it worthwhile. as you order a copy, ask them to reprint . . . a little object lesson in publishing. here's john miles' review of the book. he suggested it.

-jd

A very extensive & comprehensive manual for anyone whose goal is self-sufficiency in production of a year-round family food supply. It is not strictly "organic" in its approach to gardening & animal raising but includes much useful information starting with land purchase, through food production (vegetables, fruit, feed crops, chickens & eggs, turkeys, ducks, geese, squabs & guinea fowl, milk production [cows & goats] meat [swine, beef, lamb, rabbit], honey.)

[Suggested and Reviewed by John Miles]



Land for the Family
Gustafson, Hardenburg, Smith, and McCay
1947; 501pp.

\$11.50 postpaid

from:
Comstock Publishing Company, Inc.
Cornell University Press
Ithaca, New York 14850

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- Introduction
- I Selecting and purchasing a home in the country
- II Managing the soil
- III Using manure, lime, and fertilizer
- IV Choosing the crops to grow
- V The vegetable garden
- VI Special problems and practices in vegetable gardening
- VII Fruit growing
- VII Flowers and ornamentals
- IX Producing feed crops
- X Producing chickens and eggs
- XI Raising turkeys
- XII Ducks, geese, squabs, and guinea fowls
- XIII The family milk supply
- XIV The family meat supply
- XV Woodlands and wildlife
- XVI Producing honey for home use
- XVII The kitchen
- XVIII Food for the family
- XIX Canning food
- XX Freezing food
- XXI Salting, drying, and curing food
- XXII Fruit juices; spreads and relishes
- Index



Figure 142. The fuel wood and posts of white oak and chestnut come from the farm woodland and show what the woods can supply. The posts have been sharpened and are ready to be driven into the soil to support the fence wire.



A. F. Gustafson

Figure 11. Good gardening tools. Left: ordinary short-handled spade, suitable for spading sandy soils. Middle: an excellent type of hoe for cultivating vegetables and flowers in small gardens. Right: spading fork, a good tool for spading small gardens of loam and heavier soils.

*** Cultivator's Handbook**

just what the rope industry needs, a little kick backwards, to the good old days when times were hard, men were men, and the sheep knew it, and rope grew in hundred acre patches, all tall and green, next to the tobacco farms, and along the railroad wild across the midwest. down with sisal, off nylon, hemp, hemp, hooray.

-jd

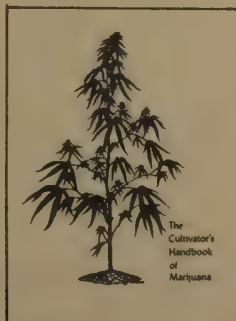
The Cultivator's Handbook of Marijuana

Bill Drake
1970; 88 pp.

\$2.50 postpaid

from:
The Augur Publishing Company
Room 202
115 E. 11th
Eugene, Oregon 97401

or **WHOLE EARTH CATALOG**



Left: Female flowers
Below: Male flowers



★
The Tassajara Bread Book

You'd expect Americans to have a particularly reverent attitude toward bread—it's been in our history since early colonists learned corn bread from the Indians. Trappers had their hard tack, gold miners their sourdough. No such attitude seems to have survived. Instead, bakeries today offer us tasteless cotton-textured white conglomerations and little else.

Here's a breadmaking guide that stands on profound respect for simple, wholesome ingredients and a "ripening, maturing, baking, blossoming" process, that turns a glob of dough into a fragrant food fit for any man's meal. Good bread is always magically more than the sum of its ingredients.

There are recipes for breads yeasted and unyeasted, fruit-filled loaves, sourdough, pancakes, pastries, muffins, and various favorite snacks from the Tassajara kitchen. This Zen cook knows the true nature of bread.

—HH



The Tassajara Bread Book
Edward Espe Brown
1970; 146pp.

\$2.95 postpaid

from:
Shambala Publications, Inc.
2010 Seventh Street
Berkeley, California 94710

or WHOLE EARTH CATALOG

ADVANTAGES OF SPONGE METHOD

The sponge method, omitted in most bread recipes, is advantageous in many ways. The yeast gets started easily in the absence of salt, which inhibits its functioning, and in the presence of plenty of oxygen. Gluten is formed when the sponge stretches in rising, which would otherwise be the product of your labor in kneading. This added elasticity makes the remaining ingredients more easily incorporated and kneading more easily accomplished. Even a 10-15 minute rising at this point will facilitate the accomplishment of the remaining steps.

Los Angeles Unyeasted Bread No. 1

Deliciously wheaty taste, remarkably high-rising, unsweetened, with thick crust and softish insides—it gets across.

(One large loaf)

7 c whole wheat flour

1 T salt

Water as needed to make kneadable (3½ c) (warm water mixes up a little easier)

Knead 300 times (count them), cover with wet towel and let sit 12-24 hours in a warm place. Knead 100 times, put in oiled pans. Cut top lengthwise and let proof 4 hours in warm place, or 1½-2 hours in 100-150 degree oven. Bake at 350 degrees for one-half hour, then oven up to 400 degrees for 45-60 minutes.

(The transmitters insist the crust should be dark brown, the bottom black. True, deep, sincere, honest, and, as they say, pure.)

Variations: (always use at least 4 c whole wheat flour)

- (A) Use 4 c whole wheat flour, 3 c unbleached white flour
- (B) Use 4 c whole wheat flour, 3 c rye or barley flour
- (C) Use 4 c whole wheat flour, 2 c rye, 1 c corn or millet
- (D) You may also substitute buckwheat flour (1½ c is enough to give it a buckwheat flavor) so use up to 2 c depending on how strong a buckwheat flavor you want. The rest may be either rye or corn meal or barley, brown rice, or combination, or all whole wheat.
- (E) Use 4 c whole wheat flour, up to 2 c corn meal, millet meal, rolled oats.
- (F) You can add 2-6 T oil per loaf as a variation.

Mustard Gingerbread

A requested recipe.

(9" x 9" x 2" pan or loaf pan of suitable size)

- 2½ c sifted whole wheat flour 1 t ginger
- 1½ t baking powder ½ c liquid oil or shortening
- ½ t salt 1 c unsulphered molasses
- ½ t soda 1 large egg
- ½ t cloves 1 c hot water
- 1 t powdered mustard (Whipped cream)

Sift together flour, baking powder and salt. Add soda and spices to oil and blend carefully. Beat in molasses and egg. Add flour mixture alternately with hot water. Beat mixture ½ minute and turn into a well-greased and lightly floured pan. Bake at 350° for 45-50 minutes. Cool in pan 10 minutes. Turn onto wire rack, bread board or plate to finish cooling. May be served with whipped cream or fruit sauce.

Community

think of community—
you think of together;
being—
living—
eating—
shitting—
sleeping—
freaking—
working—
it's not like we got to
get it together
we got to see
that we are

★
Wok

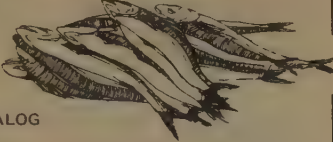
The wok is too good a tool to pass up. We're carrying a 16" spun steel one with a handy (practically essential) steel ring base to sit on gas or electric burners.

Wok (with ring base)

\$11.00 postpaid

\$10.00 in the store

from:
WHOLE EARTH CATALOG



The Soybean Cookbook

This cookbook is listed because too many vegetarians I know are looking too unhealthy. It's particularly poignant when said vegetarian is pregnant and brain-starving the child. Soybeans are extra rich in protein; they're cheap, and not hard to grow. Now would some professional nutritionist let us know if they flat-out replace animal protein? Steve Durkee got laid up for a month last summer because of too little protein in the diet at Lama. They're on vegetable protein now. Is it working, Steve?

—SB



The Soybean Cookbook
Dorothea Van Gundy Jones
1963; 240pp.

\$1.45 postpaid

from:
Arc Books
219 Park Avenue South
New York, New York 10003

or WHOLE EARTH CATALOG

HOW TO MAKE SOY CHEESE

Soy Cheese From Milk

Soy cheese is made by allowing soy milk to sour and curdle. When it is made commercially, lactic, tartaric, or citric acid is used; but acid is not necessary when a small amount of cheese is made at home. Set the soy milk in a warm place to sour and thicken. When thick, cut it into chunks with a knife, place these in a pan, cover them with water, and bring to the boiling point. Strain through cheesecloth, wringing the curds as dry as possible. Season with salt and a small amount of soy sauce. The fresh cheese can be used like cottage cheese and can be stored in the refrigerator for several days.

Soybeans are an excellent means of making a low-cost diet nutritionally safe. They are one of our cheapest sources of nutritious protein. A few cents' worth of dry beans will serve four to six persons and give them the food value of greater quantities of meat or fish. Soy flour or grits, at the cost of a few cents, can step up the protein content of a dish to equal the more expensive animal protein foods.

★
The Wok—A Chinese Cookbook

Gary Lee knows chinese cooking and his book for the beginner presents all the great techniques and traditional ways in a well-designed readable format. The wok is the central tool in any Chinese kitchen and its quick-fry principles are here explained clearly. Double-frying, steaming, and the lesser known traditions of the looo and dah-bin-lo are covered. I'm really impressed by this book; it tells more about Chinese cooking than any other Chinese cookbook I've investigated. Lee says he's going to write another book about the fancy dishes, although I wouldn't consider beef and lettuce soup, sweet and sour fish, or steamed minced pork with salted eggs to be drab fare.

—HH



The Wok
a chinese cookbook
Gary Lee
1970; 178 pp.

\$3.95 postpaid

from:
Nitty Gritty Productions
Box 457
Concord, California 94522

or WHOLE EARTH CATALOG

STEPS IN CHINESE-FRYING

1 - Wok must be very dry and clean. If not it will burn before coming to the right high temperature.

2 - In all Chinese dishes there are two basic parts; the principal and the compliment. The principal is the meat, and the compliment is usually a vegetable. In Chinese-frying you always cook the compliment first.

3 - Calculate the amount of oil you will need to cook the compliment (1 tablespoon is usually enough for a small portion). Preheat wok to a very high temperature, put oil in wok and then add compliment immediately. This is very important, do not heat the oil in the wok before adding your compliment otherwise the food will stick to the wok. The term used for this by professional cooks is "hot wok - cold oil".

4 - When the compliment is almost 3/4 done, take it out, set aside, and keep it warm.

5 - Clean the wok with a paper towel, reheat to a very high temperature again and add about 3 tablespoons of oil to cook the principal.

6 - Note: Only 1/2 of the seasonings will be added to the marinade - the other 1/2 will be added when the principal and compliment are combined. In this way, the seasonings will be well blended.

7 - When the principal is about 3/4 done, add the compliment and remaining seasonings. Never add your seasonings before this time or the food will become soggy - except in cooking tough vegetables such as cabbage or green pepper. In that case, add a very small pinch of salt only when first cooking them.

8 - A very short period of time (about 2 - 3 minutes) is all that is needed for a good Chinese-fry. You will not have time to measure all the seasonings when you want to add them. Therefore, it is very important that you have them all ready beforehand. Use five or six very small containers (small saucers, pieces of paper, etc.), measure out the seasonings you will use, and place them on these containers before you start to cook anything. Place them within easy reach in the order in which you will use them.

9 - Add the seasonings separately with an interval of at least five seconds between each addition, mixing constantly and gently yet swiftly. Bring the food from all directions to the center so that it will be evenly blended and cooked.

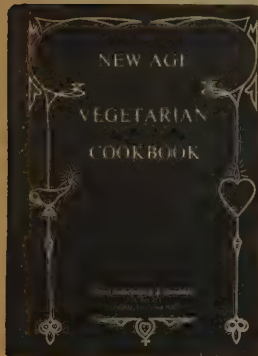
10 - When the recipe calls for water, you can use chicken broth instead. You do not always need to use all the water called for in a recipe - only what you need to make a little gravy. Some vegetables have sufficient natural moisture to necessitate only a little water.

11 - The sesame oil is always added last. Its function is to give a pleasant aroma to the food - if it is included too soon, the aroma is lost. It should be added immediately before the food is served.

*** New Age Vegetarianism**

In the politics of vegetarianism, the Rosicrucians are left-leaning liberals. The New Age Vegetarian Cookbook is not for Those Against Brown Sugar (T.A.B.S.). For the less radical, it has added virtues—a complete food value chart, menu suggestions, a chapter on canning & preserving and an index of uses (cooking and medicinal) of common herbs.

[Reviewed by Pam Smith.
Suggested by George de Alth]



New Age Vegetarian Cookbook
The Rosicrucian Fellowship
1968; 492 pp.
\$5.50 postpaid
from:
The Rosicrucian Fellowship
Mount Ecclesia
P. O. Box 713
Oceanside, California 92054
or **WHOLE EARTH CATALOG**

EGG YOLK SUBSTITUTE

1 heaping Tbs soybean flour ½ cup water
Optional: vegetable coloring Pinch of vegetable salt

Combine flour and water in pan and boil until thick, all the while stirring constantly. Strain into bowl and mix in soybean oil until it becomes thick enough to cut with knife. Season with salt and add coloring. This may be used wherever egg yolk desired.

BASIC NUTMEAT

8 cups raw peanuts, shelled and blanched
4 Tbs coconut oil
5 tsp vegetable salt
About 5 cups distilled water
1 cup soybean meal

Put peanuts through food chopper with finest knife until the consistency of fine meal; add oil and mix well. Thin with water to consistency of heavy cream. Add salt and meal. Boil about 4 hours in double boiler. Makes 2½ to 3 pounds. As this is highly concentrated, it is best to use combined with roasts, stews, soups, etc.

VITAMIN STUFFED PEPPERS

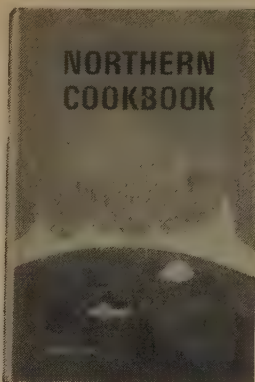
6 green peppers 2 Tbs vegetable oil
1½ cups sieved tomatoes Vegetable salt
¼ cup juice of tomatoes 2/3 cup sunflower seeds
1 cup diced green beans ¼ cup hot distilled water
1 cup whole kernel corn 1 cup steamed brown rice
Optional: grated cheese

Cut tops from peppers; remove seeds; drop in boiling water one minute. Combine all vegetables and oil; simmer 10 to 15 minutes; stir often. Mix in sunflower seeds and salt. Add mixture to peppers in baking dish. Top with cheese. Add a little hot water to baking dish to keep peppers moist while baking in 375 degree F. oven 30 minutes. Serves 6.

*** Northern Cookbook**

moose stew, reindeer pot roast, ptarmigan with orange rice, this book does indeed mean northern cooking. designed for cooks in the northwest territories and northern people without supermarkets, the recipes use northern animals and vegetables, fresh and canned, dried and preserved, it is a good guide to what can be done with what can be stored.

—jd



Northern Cookbook
Eleanor A. Ellis, editor
1967; 68; 358 pp.

\$3.50 postpaid

from:
Roger Duhamel
Queen's Printer
Ottawa, Ontario
CANADA

or **WHOLE EARTH CATALOG**

SOURDOUGH STARTER

2 cups flour
2 cups warm water
1 package dry granular yeast or
1 yeast cake

Mix well, then place in a warm place or closed cupboard overnight. In the morning it should be bubbly or frothy, and is called a sponge. Take out ½ cup of the sponge and place it in a scalded pint jar with a tight cover and store in the refrigerator or a cool place for future use. This Sourdough Starter is. The remaining sponge is ready to be used for pancakes, waffles, muffins, bread, or cake immediately.

GOLDEN PEACH PIE

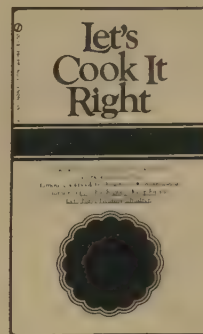
1 can peach slices
1 cup syrup from peaches
1/3 cup sugar
1½ teaspoons cornstarch
¼ teaspoon salt
1½ teaspoon orange juice
1 teaspoon grated orange rind
1 tablespoon butter or margarine
Pastry for 8-inch crust and stars or strips for top

1. Drain peaches, reserving syrup.
2. Heat syrup to boiling.
3. Blend together sugar, cornstarch and salt and stir into hot syrup.
4. Cook until thick and clear.
5. Add orange juice, rind and butter.
6. Arrange peach slices in pastry-lined pie pan and pour thickened syrup over peaches.
7. Arrange pastry stars or strips on top.
8. Bake in hot oven 425 degrees F. for 3 to 35 minutes.

*** Let's Cook It Right**

I'd recommend Let's Cook It Right just for plain easy delicious recipes, down-home-style, even if it weren't for the nutritional advice, which is also well worth getting ahold of. Sure, Adelle Davis is kind of a fanatic, but I've learned a lot from her in the past year about how to cook without destroying food value. As it turns out, this often means cooking quicker and tastier anyway. Since she explains the nutritional principles behind her methods, you can easily learn to apply her methods to recipes from other cookbooks. I particularly like the sections on variety meats, which are often neglected, and on baking (though it's a shame she chickens out on cakes). And it's extra nice the way she watches out for your budget.

[Reviewed by Ellen Hershey.
Suggested by lots and lots of people.]



Let's Cook It Right
Adelle Davis
1947, 1970; 576pp.

\$1.65 postpaid

from:
New American Library, Inc.
P.O. Box 2310
Grand Central Station
New York, New York 10017

or **\$1.50** postpaid

from **WHOLE EARTH CATALOG**

The picture would be less grim were there truth in the frequently made statement that we are the best-fed nation in the world... We have perhaps the greatest quantity of food, but quality has been lost. The growth of produce raised on our exhausted soils must be forced with heavy applications of chemical fertilizers. Such foods contain smaller amounts of proteins, vitamins, and minerals than does produce grown on fertile soils. Almost every fresh food in our markets shows signs of plant deficiencies and diseases: uneven ripening, split stalks, rust, spotting, quick spoilage, and an appalling lack of flavor. Plants raised on sick soils quickly become infected with insects; two to three billion pounds of poison sprays and their solvents—many of them already proved to be carcinogenic to animals—are dusted or sprayed annually over our foods. Soils sprayed only once have been found to be still contaminated fifteen years later... In countries where soils are continuously rebuilt, no insecticides used, and no food additives allowed, the cancer rate, already much lower than ours, is said to be decreasing.

WHEAT-GERM MUFFINS

Sift into mixing bowl:

- | | |
|---------------------------------------|---|
| 1 cup sifted whole-wheat-pastry flour | 3 teaspoons double-acting baking powder |
| 1 teaspoon salt | ¾ cup powdered milk |

Add and stir only enough to moisten:

- | | |
|---|------------------------------|
| 1 cup wheat germ | ¼ cup honey or dark molasses |
| 1 cup sweet or sour milk, buttermilk, or yogurt | 2 tablespoons vegetable oil |
| 2 eggs | ½ cup raisins (optional) |

Fill paper baking cups or well-greased muffin tins two-thirds full. Bake at 400° F. for 15 to 20 minutes, or until brown. Makes a dozen large muffins.

Parsnips are often disliked largely because of the abominable method of cooking them in water, which they soak up like a sponge. They are most delicious if not touched with water after they are thoroughly washed. Even when they are steamed, sugar quickly dissolves out; if overcooked only a few minutes, the pulp becomes waterlogged and mushy. Parsnips cook quickly; hence recipes which advise cooking them twice should be avoided. Since the sugar in parsnips burns easily, the heat should be kept low after they have been heated through.

LIVER WITH APPLES

Mix together well:

- | | |
|-----------------------------------|----------------------------------|
| 3 chopped unpeeled cooking apples | ¾ teaspoon salt |
| 1 chopped large onion | freshly ground black peppercorns |

Place in oiled baking dish:

1 pound sliced baby beef, pork, or veal liver

Cover liver slices with apple-onion mixture; top with:

- | | |
|----------------------------|-----------------------------|
| 4 slices bacon cut in half | generous sprinkling paprika |
|----------------------------|-----------------------------|

Add:

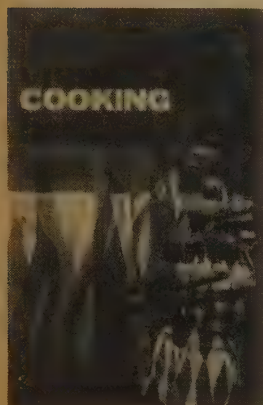
¾ cup hot water

Cook in moderate oven at 350° F. for 20 minutes.

*** Vibration Cooking**

Verta Mae is a Geechee girl from South Carolina and she likes "simple—plain—ordinary" food. She's got wise words for you on the "demystification of food" and says to rely on the good vibrations of your kitchen and your heart to turn the cooking ritual into a beautiful everyday happening. It's tasty—the raps and the recipes.

—HH



Vibration Cooking
Verta Mae
1970; 190pp.

\$1.95 postpaid

from:
Doubleday and Company, Inc.
501 Franklin Avenue
Garden City, New York 11531
or **WHOLE EARTH CATALOG**

DYNAMITE BLACK

Mix together 1 cup sugar, 1 cup dates, 1 cup walnut meats, 2 tablespoons flour and 1½ teaspoons baking powder to a bowl. Then add 3 beaten eggs and some vanilla extract. Bake for 35 minutes in a moderate oven.

In reading lots and lots of cookbooks written by white folks it occurred to me that people very casually say Spanish rice, French fries, Italian spaghetti, Chinese cabbage, Mexican beans, Swedish meatballs, Danish pastry, English muffins and Swiss cheese. And with the exception of black bottom pie and niggertoes, there is no reference to black people's contribution to the culinary arts. White folks act like they invented food and like there is some weird mystique surrounding it—something that only Julia and Jim can get to. There is no mystique. Food is food. Everybody eats!

And when I cook, I never measure or weigh anything. I cook by vibration. I can tell by the look and smell of it. Most of the ingredients in this book are approximate. Some of the recipes that people gave me list the amounts, but for my part, I just do it by vibration. Different strokes for different folks. Do your thing your way.

HOPPING JOHN

Cook black-eyed peas.
When they are almost done add rice.
Mix rice and peas together.
Season and—voilà!—you got it.

And speaking of rice, I was sixteen years old before I knew that everyone didn't eat rice everyday. When you said what you were eating for dinner, you always assumed that rice was there. That was one of my jobs too. To cook the rice. A source of pride to me was that I cooked rice like a grown person. I could cook it till every grain stood by itself. What you do is to rub it together in the palms of your hands and make sure you get all grains washed. Then you put it in a pot with cold water.

Use 1 part rice to 2 parts water. Always use cold water. Let it come to a boil and cover it with a tight cover. Soon as it comes to a boil you turn it to simmer and you cover with a tight cover. Let it cook for exactly 13 minutes and then cut it off. Let it stand for 12 minutes before eating.

STEAK WITH BEAUTIFUL BLACK SAUCE

Sprinkle the sides of each steak with ground pepper. Let stand for 1 hour. Brush your black skillet with beef suet and heat the skillet. Cook the steaks to your desire and remove steaks to a platter and add butter to the skillet and cook butter until it almost is black. Pour butter over and serve.

Quantity Recipes

In a commune I lived in in New Mexico we had two major problems: food and sex. This book will go a long way to helping you solve the first. What a drag to take down the Joy of Cooking, find something really groovy to fix for yourself and friends and have to spend a half an hour multiplying all the ingredients by seven or eight knowing that you couldn't possibly need a cup of oregano in the chili, but that's what your figures say. We ate some pretty bad experiments and several of the women and men shied away forever from anything but the lettuce salads. Enormous pots of food take a certain skill or they become enormous pots of glop.

In my opinion the recipes are basic, that is, I would add here and there seasonings, etc. to make the food special, new, hopefully an experience and not just another meal. Like all cookbooks this finally becomes a guide rather than a road but it will show you a road and act as a guide until the process becomes intuitive. Also, after a few weeks, or months; cooking creatively can get a bit strained. Cookbooks will pull you through with the advantage of this one already being adjusted for a large group. One of the best dollar tools a community could buy.

[Reviewed by Steve Katona]

While you're at it, get their free catalog of Bulletins, which lists innumerable titles on food, kitchens, shopping, clothes, flowers, etc., at low cost.

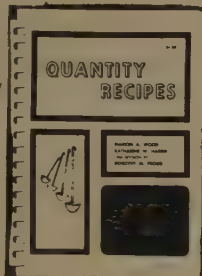
[Suggested by Roger Knights]

Quantity Recipes

Marion A. Wood, Katharine W. Harris
1945, 1966; 233pp.

\$1.00 postpaid

from:
Cornell Home Economics Extension
New York State College of Human Ecology
Mail Room
Building 7, Research Park
Cornell University
Ithaca, New York 14850



Another means of decreasing the cost of a recipe is by extending the more expensive items with cheaper ones. Meat stew is used as an example:

MEAT AND VEGETABLE STEW

Yield: 50 servings

3 servings per pound of meat	Price per unit	5 servings per pound of meat	
15 pounds beef	\$10.65	\$0.71/pound	10 pounds beef
1 cup onions	.01	0.03/pound	1 cup onions
2 quarts carrots	.14	0.06/pound	3 quarts carrots
2 quarts potatoes	.12	0.04/pound	3 quarts potatoes
1 quart celery rings	.09	0.13/bunch	1 1/2 quarts celery rings
1 1/2 quarts (2 1/2 pounds) peas, frozen	.45	0.18/pound	2 1/2 quarts (4 pounds) peas, frozen
Total cost	\$11.46		Total cost
Cost per serving	\$0.23 (\$11.46 ÷ 50)		Cost per serving
			\$8.36 (\$8.36 ÷ 50)

The cost of left-over foods used in recipes should be included when figuring costs.

Average serving size and cost of serving, 1966, are given in the appendix.



The Oxford Book of Food Plants

G.B. Masefield, M. Wallis,
S.G. Harrison, J.B.E. Nicholson
1969; 205pp.

\$11.00 postpaid

from:
Oxford University Press
16-00 Pollitt Drive
Fair Lawn, New Jersey 07140

or WHOLE EARTH CATALOG

The Oxford Book of Food Plants

A beautiful book, for looking and for reference. Color plates as illustration of every plant, emphasizing the part which supplies food. Arranged in a practical way—plants are grouped according to the kind of food they produce: fruits, herbs, leaf vegetables, oil crops, sugar crops, root vegetables, etc. Common and botanical name included, and an index which lists both, plus a glossary of descriptive botanical words. Descriptions of each plant tells its use, history, countries of origin and regions where it grows, along with a physical description accompanied by a drawing, food value, and economic value.

[Reviewed by D. Smith]

Lentil (*Lens culinaris*). This is one of the oldest leguminous crops, believed to have originated in the Near East or the Mediterranean region, and known to the ancient Egyptians and the Greeks. It is still grown commercially mainly in the regions where it was first cultivated, although it can be grown as far north as the British Isles, given a warm, light soil. The seeds are marketed when dried and are widely used in soups and stews. They have a high protein content and are more easily digestible than animal proteins. In Catholic countries they have long been appreciated as a food for use during Lent.

The Lentil is a much-branched annual, up to 18 inches high, with slender, angular stems. Its leaves are pinnate, with 4 to 7 pairs of more or less oval leaflets, about 1/2 inch long. The small white flowers are papilionaceous with a large upper petal, two lateral petals, and two narrow petals between these. The flowers are succeeded by short, flattened pods, each with 1 or 2 seeds. These seeds are green, greenish-brown, or reddish, sometimes mottled. Their shape is indicated by the classical name of the genus, *Lens*, from which the English word 'lens' is taken. The split and de-husked lentils of commerce are usually orange or reddish.

KUMQUAT (*Fortunella spp.*) is not a true Citrus but comprises species of the closely related shrubby genus *Fortunella*. In appearance the fruits are like very small oranges, but they have an acid taste. They are not widely grown, but are prized in China because of their cold resistance which enables them to be grown farther north than any of the true citrus fruits. They are used mainly for pickling or making into conserves.

CLEMENTINE is regarded by some authorities as a variety of tangerine, and by others as a hybrid, probably between the tangerine and sweet orange. It lies in any case somewhere between the tangerine and orange in the size and colour of the fruit and in the ease with which the peel may be removed. Clementines are produced principally in the North African countries and appear on the market in limited quantities.

The mango is a medium-sized to large tree of rather variable height. The narrow dark green leaves form a characteristically dense mass of foliage, casting a heavy shade which makes the tree useful as a firebreak but incidentally provides a favourable habitat for mosquitoes. Fruiting begins by about 6 years from planting, but yield declines after the trees are about 40 years old. There is a tendency to biennial bearing, with exceptionally heavy crops in some years. Flowering takes place usually between January and March in the northern hemisphere, and in June to August in the southern. The inflorescence (1B) produces clusters of small numbers of fruits, each hanging down on a stalk which in some varieties can be very long. The yellowish-green skin of the fruit is not eaten. Inside it is the orange-coloured edible flesh surrounding the central seed (stone). It is difficult to eat the fruit without getting sticky.

How to Buy Food

A collection of U.S. Dept. of Agriculture publications including information on fresh meat, fish, dairy products, fruits and vegetables and frozen and canned goods. Also has sections on what government gradings mean; pointers on when higher quality is worth the price, on storing food—where and for how long, and seasonal bargains. All in all informative and full of reassuring rules of thumb.

[Reviewed by Laura Besserman]

How to Buy Food

Valerie Moolman, editor
1970; 160 pp.

\$1.00 postpaid

from:
Cornerstone Library, Inc.
630 Fifth Avenue
New York, New York 10020

or WHOLE EARTH CATALOG



Home Canning of Fruits and Vegetables

You can buy a book on this subject for \$5, or you can get these perfectly adequate Government booklets at 20 cents apiece.

—SB

Home Canning of Fruits and Vegetables

Home & Garden Bulletin No. 8
1965, 1969; 31 pp.

\$.20 postpaid

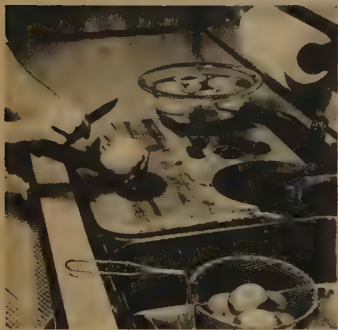
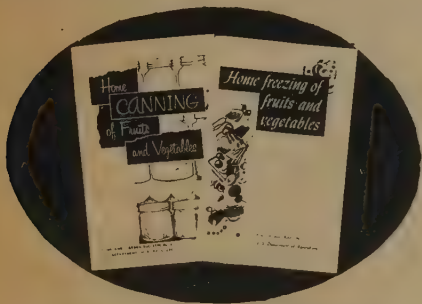
from:

Home Freezing of Fruits and Vegetables

Home & Garden Bulletin No. 10
U.S., 1969; 47 pp.

\$.20 postpaid

both from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402



Peaches can be peeled easily if they are dipped in boiling water, then in cold water.

Storing Vegetables and Fruits

This booklet will be valuable to anybody living in areas where the temperature in winter averages 30 degrees or lower. Storing without refrigeration relies on cold outdoor air to cool the stored products. "Basements, cellars, outbuildings and pits" are explained and diagrammed, with specific instructions for different vegetables and fruits. A bargain.

—HH

Storing Vegetables and Fruits in basements, cellars, outbuildings and pits

Home and Garden Bulletin No. 119
18 pp.

\$.15 postpaid

from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

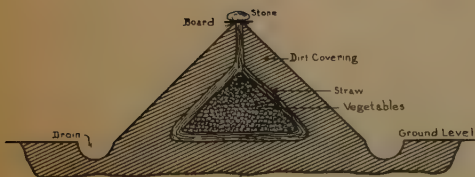


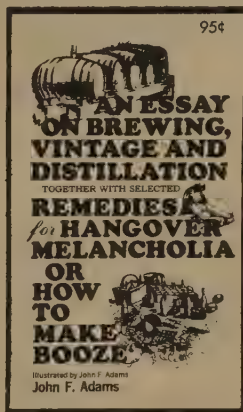
FIGURE 3.—Cone-shaped pit showing details of construction.

How To Make Booze

Reading this book, I start to yearn for a wine cellar, 10 ceramic crocks, cupboards full of dry and fresh ingredients, long wooden stirring spoons, mead tables and friends enough to provide for partying every night, starting out with the light beers and finishing up on the floor with the dark wines. This book is, not counting the historical references and mythological stories, entirely practical. Written by a former(?) student of no doubt many serious years and some wisdom who says about the book's purport: "... the idea was a simple one: to write a book about wine making and brewing based on the thesis that the person reading the book could actually do it."

He tells you the ingredients needed, the equipment necessary, and half necessary and slightly necessary, and how to make it, then the procedure to follow, how long to ferment, how long to age, what to do if something screws up at a point in between, how to bottle, where to get EVERYTHING the cheapest, what ingredients make it taste this way, what fruits that, heresay and incorrect rumored procedures. Covered are home brew, white lightning, wine, mead and distilled spirits, bathtub gin; at the end are remedies for hangovers. Drawings by the author of equipment to use.

[Suggested by Peter Ratner. Reviewed by D. Smith]



An Essay on Brewing, Vintage and Distillation, Together with Selected Remedies for Hangover Melancholia or How to Make Booze
John F. Adams
1970; 108pp.

\$.95 postpaid

from:
Doubleday & Co., Inc.
501 Franklin Avenue
Garden City, New York 11531

or WHOLE EARTH CATALOG

Supplies

Aetna Bottle Co., Inc.
708 Ranier Avenue South
Seattle, Washington 98144
[Suggested by Duane Matterson]

The Bacchanalia
321 Saugatuck Station
Westport, Connecticut 06880
[Suggested by Patrick N. Baker]

E.S. Kraus
P.O. Box 451
Nevada, Missouri 64772

Presque Isle Wine Cellars
9440 Buffalo Road
North East, Pennsylvania 16428
[Suggested by John C. Wilson]

Semplex of U.S.A.
P.O. Box 12276
Minneapolis, Minnesota 55412
[Suggested by Tom Wellman]

Wine Art of America
4324 Geary Blvd.
San Francisco, California 94118

The Wyne Table
P.O. Box 490
Norman, Oklahoma 73069

Each of these supply houses has free catalogs or price lists. Semplex of U.S.A. (American agent for a very good British firm) and Presque Isles Wine Cellars have very good reputations.

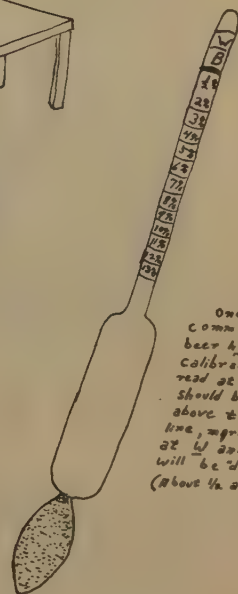
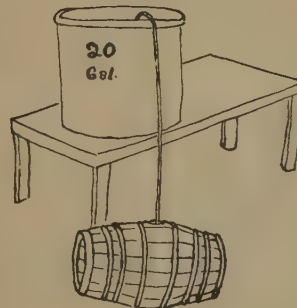
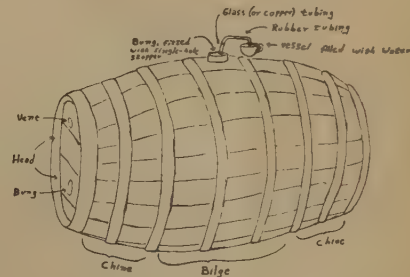
For the most technical information on the subject, check out First Steps in Winemaking, Successful Winemaking at Home, and Home Brewing Without Failures (reviewed in Spring 1970 Whole Earth Catalog). See page 141 for ordering information.

... members of the Vast Unwashed resort to additives—chiefly varieties of resins, powdered ingslass, gelatin—added either to the crock or to each bottle. Ineffectual. Live with the sediment as you live with sweat and labor. Ours is a postapian world. Open each bottle carefully and pour slowly, and when the sediment begins to move to the mouth of the bottle, stop. Pour quarts into pitchers if practical. About a quarter of an inch of each bottle will be wasted, but consider this your tithe. It is little enough, and full of tares anyway.

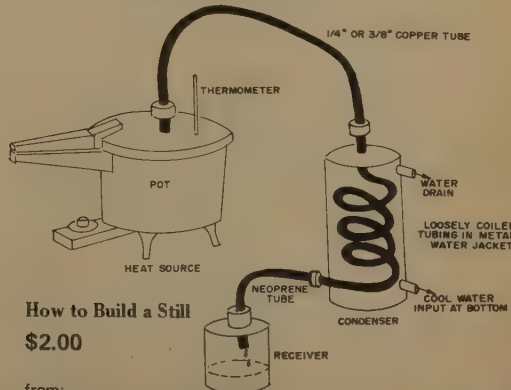
Mead may be purchased even today in this country at the larger liquor stores, usually imported from Denmark. All imported mead I have bought has proved to be quite unsatisfactory, and resembled only distantly what mead really should taste like. If you want good mead—and once you have tasted it, you will—you must make it yourself. Fortunately, it is simple to do so.

Wine, that universal beverage, became an alcoholic beverage almost through the back door. Basically, wine is a food, and its alcoholic content is primarily a preservative. (And there is much to recommend it over monosodium glutamate.)

... it probably should be pointed out that equipment of almost incredible variety is offered for sale by supply houses specializing in such truck. ... Also, in most large cities there are malt shops which sell large varieties of malts, yeasts, and sugars, as well as crocks, barrels, patent syphoning devices, etc. ... Of course, anything you buy through such speciality outlets carries a premium price. Bottle caps, for example, cost about three times the price charged by your local hardware or grocery store. Malt syrup—the same brands you find on the supermarket shelves—cost about twice the supermarket price when you buy them from "brewers' supplies."



NOTE: Unlawful to build in many countries. May require licensing in others.



How to Build a Still
\$2.00

from:
The Wyne Table
Box 490
Norman, Oklahoma 73069

HOW TO MAKE HARD CHEESE

(Makes 1½ - 2 Pounds)

1. PREPARATION OF THE MILK

Allow 4 quarts of evening's milk to ripen overnight in cool place (50-60°F.). Mix in 4 quarts of next morning's milk. This will give a better cheese than if you use all fresh milk; however, milk must taste sweet. You may use either cow's or goat's milk with equally good results.



2. WARM THE MILK TO 86°F.

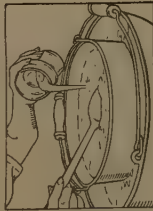
In an enameled or tinned pail, heat milk to 86°F.

3. ADD CHEESE COLOR

If yellow cheese is desired, dissolve one eighth (or less, according to color desired) of a "HANSEN'S" CHEESE COLOR TABLET in a tablespoon of water, and stir into milk. (Never mix cheese color into rennet tablet solution.)

4. ADD CHEESE RENNET

Dissolve ¼ of a "HANSEN'S" CHEESE RENNET TABLET in a glass of cold water; to help dissolve, break and crush with a spoon in water; stir until completely dissolved. Put the pail of milk in a larger pail of warm water, 88-90°F.; leave in a warm place, protected from draft. Add the rennet solution; stir milk thoroughly for a minute after rennet is added.

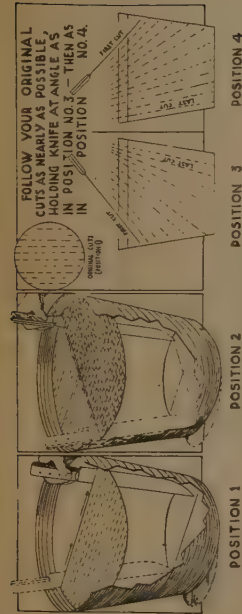


5. LET SET UNTIL "CLEAN BREAK"

Let stand undisturbed until a firm curd forms, 30-45 minutes. Test the firmness of curd with your finger; put finger into the curd at an angle and lift. If the curd breaks clean over your finger, it is ready to cut.

6. CUT 2 WAYS VERTICALLY - THEN 2 WAYS AT AN ANGLE

To cut the curd into small cubes, use a long butcher knife or spatula—long enough so that the blade will go clear to the bottom of the pail without the handle dipping into the curd. Cut into squares of about ¾" as shown in Positions 1 and 2 on illustration. Then use your knife at an angle—see



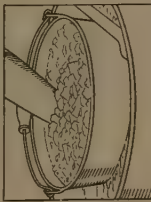
FOLLOW YOUR ORIGINAL CUTS AS NEARLY AS POSSIBLE. NEVER CHANGE POSITION NO. 1, 2, 3, OR 4. POSITION 4

Illustration for Step No. 6

make each cut about ½-1" lower. Then turn the pail and draw similar angular cuts from the other side (Position 4).

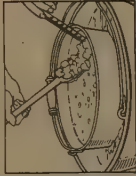
7. STIR CURD FOR 15 MINUTES BY HAND

With your hand stir curd thoroughly but very gently, with long, slow movements around the pail, and from the bottom up. Carefully cut up the larger pieces that come up from the bottom, but do not squash curd. Try to make the pieces of curd as nearly as possible the same size. Stir continuously by hand for 15 minutes, to keep the curd from sticking together.



8. WARM SLOWLY FOR ABOUT 1 HOUR TO 102°F.

Heat slowly to 102°F, raising the temperature of the curd, and whey about 1½" every 5 minutes. Stir (with a spoon) frequently enough to keep the curd from sticking together. Heating should continue slowly—if necessary a few degrees above 102°F. until the curd holds its shape and readily falls apart when held on your hand for a few seconds without squeezing.



9. STOP HEATING. STIR OCCASIONALLY FOR 1 HOUR

Remove from heat. Stir every 5-10 minutes, i.e. enough to keep curd from matting together. Leave curd in the warm whey until it becomes firm enough so that the pieces in a handful when pressed together will easily shake apart. This will take about an hour.



10. POUR CURD INTO CHEESE CLOTH

Pour into cheese cloth 3-4 feet square. Then hold 2 corners of the cloth in each hand and let curd roll back and forth without sticking together for 2-3 minutes to allow whey to run off.

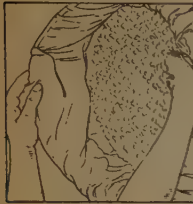
11. SALT CURD

Place cloth with curd in empty pail, sprinkle 1 tablespoon salt over curd, mix well with hands without squeezing; then sprinkle another tablespoon salt on curd and mix well again.



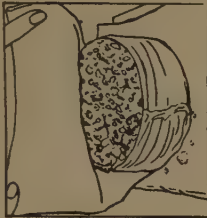
12. FORM INTO BALL AND HANG UP

Tie the four corners of the cloth crosswise, forming the curd into a ball. Hang up for ½ to ¾ hour to drip off.



13. DRESS THE CHEESE

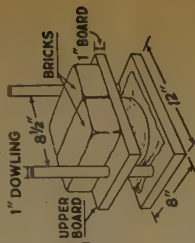
Remove cloth from sides of ball. Fold a long cloth, shaped like a dish towel, into a bandage about three inches wide and wrap tightly around ball, forming it into a round shape. Pin in place. With your hands, press cheese down to make the top surface of the cheese smooth. There should be no cracks extending into the center of the cheese. Your round loaf of cheese should not be more than six inches across, otherwise it will dry out too much.



14. PRESS CHEESE

(See diagram for simple cheese press)

Place three or four thicknesses of cheese cloth on top and under the cheese. Put the cheese on lower board of press and push upper board down to rest on cheese; place two bricks on top. At night, turn cheese over and put four bricks on top. Let stand until morning.



15. PARAFFINE. STORE IN COOL PLACE

Remove cloths from cheese and place on a board for half a day, turning occasionally until the rind is completely dry. Then dip in paraffin that is heated in a deep pan to 210°-220°F. Dip first one half, hold a minute, then dip other half. (If preferred, liquid paraffin may be painted on with a brush, or vegetable or mineral oil may be rubbed onto cheese instead of paraffining.) Then store in a clean, cool but frost-free cellar or similar place. Turn over each day for a few days, then 2-3 times a week. The cheese is usually good to eat after 3-4 weeks.

★ How to Make Butter and Cheese

Chr. Hansen's Laboratory, which sells vegetable-base butter coloring, cheese color tablets and cheese rennet tablets, have some great illustrated charts on Butter and Cheese making, and a 24-page booklet How to Make Cheese. They're all free. We've reproduced the essential steps here. Goat Husbandry (page 35) has several good recipes for butter and cheese using goat's cheese.

★ How to Make Butter on the Farm (chart)

★ How to Make Cheese on the Farm (chart)

★ How to Make Cheese on the Farm and in the Home 1939; 24 pp.

free

from: Chr. Hansen's Laboratories, Inc. 9015 West Maple Street Milwaukee, Wisconsin 53214

How to Make Butter on the Farm

For more detailed instructions send to Superintendent of Documents, Washington, D.C. 20402 for Farmers' Bulletin No. 876 "Making Butter on the Farm" (5 cents)

1 Ripen Cream, If Desired

Butter may be made from either sweet or sour cream, both of which should be free from any off flavors. Butter made from sweet cream has a mild, creamy flavor. But if a more flavorful product is desired, allow the cream to ripen at 65-75 degrees F. until thick and mildly sour.

2 Bring Cream to churning temperature

In summer: Usually 52-60 degrees F. In winter: Usually 58-66 degrees F. Sweet Cream: Keep cool as possible until just before churning.

Sour Cream: Hold 2 hours at churning temperature. Churning Temperature is correct when butter "comes" in 30-40 minutes. If cream is too cool, churning will last too long, and give hard butter. If too warm, churning period will be too short for complete churning, and soft, greasy butter will result.

3 Rinse Churn with scalding water; then rinse and chill with cold water

Treat butter lades, paddles, worker and printer the same way and place all but the worker in a pail of cold water until needed.

4 Strain Cream into churn

In order to work efficiently, the churn should be only about one-third full, or at least not over one-half full. If too full the churning period is prolonged.

5 Pour Butter Color into cream [sic]

Measure the amount of Butter Color needed and pour it into the middle of the churn, without letting the color touch any wooden parts. The quantity needed varies with the season, is highest in spring just before cows go on pasture when 2-3 teaspoons of "Dandelion" Butter Color per 10 gallons of cream may be needed (cream with 20%-30% butterfat).

6 Close Churn and start turning

Start churn at speed to produce the greatest cushion, which can be determined by the sound—about 60 revolutions per minute for the common barrel type of churn.

7 Permit Gas To Escape

After a few revolutions, stop churn, bottom up; remove cork to permit the escape of gas. Repeat this 2-3 times during early stages of churning.

8 Churn until Butter "Comes"

Wait for the change in the sound of the cream, and for thick mushy mass to appear on glass in churn. Then turn churn several times more, and stop to examine butter granules.

9 Stop Turning when granules are size of wheat grain

When sound of cream in churn changes watch the granules through the glass and stop churning when the butter granules are the size of grains of wheat.

10 Draw Buttermilk

Let the buttermilk out of the churn through the hole at the bottom of the churn. Run through a strainer to catch any particles of butter.

11 Wash Butter

While the last of the buttermilk is drawing off, prepare the wash water: Pure, clean water, twice the quantity of the buttermilk, and about the same temperature. After all buttermilk is drawn off, replace cork and pour one-half the wash water into churn. Replace cover and turn churn rapidly about four times. Draw off wash water and repeat washing.

12 Salt and Work Butter

Rinse "worker" once again with hot and then with cold water, leaving worker wet. Weigh butter. Spread butter with lades on worker, in a layer about 2 inches thick. Salt onto butter—½oz. salt per pound butter, or more or less according to taste. Press butter (do not rub or smear it) into thin layer, fold into a pile and press again. Continue working until salt evenly distributed and butter has desirable grain and body.

If you do not have a butter worker, you can still do a good job by working the butter with your lades or paddles right in the churn or in a large wooden bowl. This should be done by gathering the butter into the form of a ball, pressing it into a thin layer and then repeating this process over and over again until the salt and moisture are well worked in.

Organic Shopping Guide

Rodale Press has compiled a comprehensive list of Organic Food Sources in 46 states and Canada, and complemented it with essays on the state of natural foods today, safe detergents, and other juicy lists of sources for natural fertilizers, ecology action groups, and organic gardening groups.

-HH

Guide to Organic Foods Shopping and Organic Living

Jerome Goldstein & M. C. Goldman, editors
1970; 116 pp.

\$1.00 postpaid

from:
Rodale Press, Inc.
Emmaus, Pennsylvania 18049

or **WHOLE EARTH CATALOG**



NEBRASKA

Brownville Mills
Brownville 68321

Nebraska Fertilizer Co.
P.O. Box 100
S. Omaha 68107
Phone: 731-8200

KENTUCKY

Clair W. Stille
130 N. Hanover Ave.
Lexington 40502
Phone: (606) 266-8066
Fertosan organic compost maker. 100% organic liquid compost concentrate. Sell retail, wholesale, make out-of-state shipments.

Happy Acres, Inc.
Miracle Soil Tone Mfrs.
P.O. Box 711 (on Hwy. 1247, Elihu)
Somerset
Phone: (606) 678-8896
Natural soil conditioners, potash, iron, minerals. Sell retail, wholesale, make out-of-state shipments.

ARKANSAS

Briton's Dietary Foods
Decatur 72722

Olde Fashioned Foods
123 N. 18th St.
Fort Smith 72901
Phone: (501) SU 2-6183
Vegetables & fruits in season (potatoes, cabbage, carrots, turnips, rutabaga, tomatoes, cucumbers, corn, greens.
Beef, poultry, honey, grains, nuts. Will ship.

Gus Nichols
Sleepy Hollow Service
Gentry 72734

Graham's Health Food Store
220 Highway 71 South
Springdale 72764
Phone: (501) PL 1-4224

Shiloh Farms
Route 59
Sulphur Springs 72768
Phone: (501) 298-3297
Fruits & vegetables in season.
Beef, eggs, poultry, honey, grains, nuts. Will ship.
Overnight accommodations and camping facilities nearby.

Neil D. Waines
General Delivery
Valley Spring 72682
2 miles west of Harmon on Hy. 62
Vegetables & fruits in season.
Eggs, chicken, rabbit meat.

M. Davis & H. VanSkiver
Box 507
Waveland 72867
Sweet potatoes, cabbage, tomatoes, herbs and other vegetables in season. No shipping.

NEW MEXICO

Radiant Health Products
Jim and Flo Johnson
33 Winrock Center
Albuquerque 87110
Phone: 296-2073
Vegetables & fruits in season.
Eggs, honey, grains, nuts. Will ship. Serve snacks.

Ella Hanford
Natural Foods
1203 Cerrillos Rd.
Santa Fe 87501
Phone: (505) 982-2931
Wide variety of grains, citrus fruit, soybeans, dried fruits, nuts, rice, beans. Cheese, eggs, flours and cereals ground to order. Honey. Will ship.

Riggs
Rt. 4, Box 88B
Santa Fe 87501
Phone: 983-5557
Vegetables & fruits in season.
Eggs, poultry, honey, grains, nuts. Seeds & sprouts. Will ship.

Bob Read
Taos 87571

IDAHO

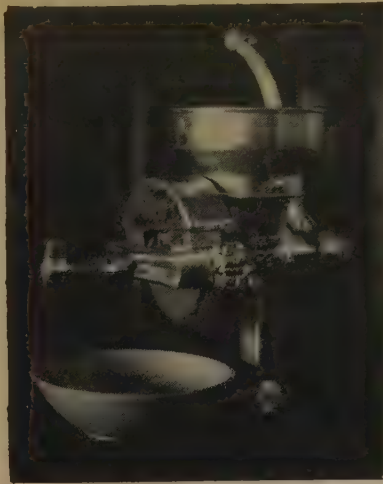
Carl C. Brutaman
Banks 83602
Phone: 462-3794
Vegetables in season.
Eggs. No shipping.

Garfield's Ranch
Rt. 1
Homedale 83628
Phone: 337-4121
Potatoes and tomatoes. Apples, cherries, apricots, peaches, plums and pears.
Check for available campsites. Home area shipping only to October 1st.

Corona Hand Mill

From all we can gather, this is the best of the hand mills for grains, etc. With two grindings you get not bad flour.

-SB



Corona Hand Mill

\$13.40 postpaid
(\$10.00 in the store)

from:
WHOLE EARTH CATALOG
558 Santa Cruz Avenue
Menlo Park, Ca. 94025

or
\$10.95 postpaid

from:
Smithfield Implement Co.
99 N. Mark Street
Smithfield, Utah 84335

Lee Electric Four Mills

The best bread is made from wheat ground just before baking.

This is a small electric grain grinder manufactured by an old dependable company. A unique feature of this machine is that it grinds the entire grain kernel, including the germ and bran, into fine flour. (Other mills generally discard the germ). You fill the hopper and an automatic feed admits the proper amount of grain into the stone grinding chamber. The corborundum grinding stone never needs redressing, the mill does not get warm enough to impair the nutritional value of the flour, and fresh stone ground flour... pass the bread!

[Suggested and Reviewed by Lloyd Kahn]



Catalog free

from:
Lee Engineering Co.
2023 West Wisconsin Avenue
Milwaukee, Wisconsin 53201

Model	Motor Size	OUTPUT PER HOUR		Price
		Fine Flour	Coarse Meal	
500	1/6 hp	3 to 5 lbs	not adjustable	\$95.00
600	1/6 hp	3 to 5 lbs	20 to 25 lbs	\$125.00
S-500	1/4 hp	6 to 10 lbs.	not adjustable	\$145.00
S-600	1/4 hp	6 to 10 lbs	40 to 45 lbs	\$170.00
		Operating Voltage	115 AD-DC	
		Current Draw	3.0 amperes	
		Overall Height	20 inches	
		Shipping weight	20 pounds	

Foods by Mail

Sources for foods that are not treated with DDT, fumigants, etc. Most of these outfits are family affairs, and dedicated to supplying customers with real foods, mostly by mail.

Wheat

Arrowhead Mills, Inc.
P.O. Box 866
Hereford, Texas 79045

Deaf Smith County, Texas, is a mineral-rich area that produces wheat with high amounts of protein the best wheat available. 50 lbs: \$3.75 plus postage.

Ted A. Whitmer & Son
Bloomfield, Montana 59315
100 lbs: \$7.50 plus postage.
By the truckload, in bulk: 6 cents per lb.

Erewhon Trading Company, Inc.
342 Newbury Street
Boston, Massachusetts 02115
or
8003 Beverly Boulevard
Los Angeles, California 90048
Good source of natural foods for the East Coast.
Free brochure.

El Molino Mills
3060 West Valley Blvd.
Alhambra, California 91803
Has good wide selection (catalog free) and a good \$1 cookbook.

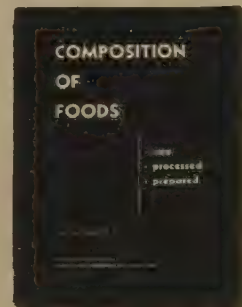
The Food Mill
3033 MacArthur Blvd.
Oakland, California 94602
Large stocks of bulk foods. Gallons of avocado honey, fresh peanut butter. Free leaflet.

Walnut Acres Mill & Store
Penns Creeks, Pennsylvania 17862
Best, most reputable source in the United States. Foods like you've never tasted: unrefined corn germ oil, raw peanut flour, creamed papaya juice. If you can order with friends, bulk orders are economical. Free catalog.

Composition of Foods

Since natural food does not come with a list of ingredients on the label, the Department of Agriculture has kindly prepared this authoritative analysis of everything edible. If you're serious about nutrition, it's a buy.

[Suggested by Tassajara Zen Center]



Composition of Foods
Bernice K. Watt and Annabel L. Merrill
1963; 190 pp.

\$1.50 postpaid

from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

or **WHOLE EARTH CATALOG**



Mildred Hatch Loan Library

Books on nutrition and other related subjects can be borrowed for two weeks for the cost of postage. Overdue books cost 3 cents a day per book. Write for their booklist, in preparation.

Mildred Hatch Loan Library
8 Pine Street
Saint Johnsbury, Vermont 05819

Herbs and Spices by Mail

Greene Herb Gardens
Greene, Rhode Island 02827

Common and rare herbs and herb seeds. From Borage and Chervil to Lovage, Sweet Cicely and Woad. Seed packets, three for \$1.00. Brochure.

Meadowbrook Herb Garden
Wyoming, Rhode Island 02898

Organically grown herbs and seeds. Teas, seaweed meal and herb books. Free catalog.

Oak Ridge Herb Farm
R.R. #1, Box 461
Alton, Illinois 62002

Also completely organic. Rare herb seeds, plants, roots and bulbs. Teas. Free catalog.

Nichols Garden Nursery
1190 North Pacific Highway
Albany, Oregon 97321

Some very rare herb seeds and plants. Vegetable seeds. Elephant garlic! Oregon wildflowers. Wide selection of teas.

Northwestern Processing Company
217 North Broadway
Milwaukee, Wisconsin 53202

A young company just getting into the mail order business. High quality spices, reasonable prices, coffees, teas, nuts, and herbs. They'll do their best to get rare herbs and products you can't find anywhere else. They also have a wholesale outlet, Kettle Creek Company. Free catalog.

Dominion Herb Distributors, Inc.
61 Saint Catherine Street West
Montreal 129, Quebec CANADA

Besides being an excellent source of plants for dyes (see p. 98) they stock over 2000 different herbs, roots, barks, gums, berries and seeds. Canadian-grown Ginseng Root. Free catalog.

D. Napier & Sons
17, 18 Bristo Place
& 1 Teviot Place
Edinburgh EH1, SCOTLAND

Low low prices and some unusual herbs and herbal products, like Barberry bark powder, Dandelion coffee, Slippery Elm Bark Soap and Unicorn Root Powder. Free brochure.

[Suggested by Dr. Duncan Pepper]

* The Herb Grower

A quarterly for grow-your-own herbalists with articles by same, plus herb prints, recipes, herb history and book reviews.

-HH

The Herb Grower

\$5.00 per year (quarterly)

from:
The Herb Grower
Falls Village, Connecticut 06031

See page 115 for more books about herbs and wild edible plants—particularly Euell Gibbons' fine Stalking the Healthful Herbs.

* Mushroom Booklet

A very useful pamphlet easily taken to the woods. We identified some oyster mushrooms, watered them (not a good idea as they got too large & kind of tough) & fed 20 people on them last weekend. All agreed it was real fine eating & we owe it all to our little pamphlet.

There are 26 photographs most of which show several angles & types of each species, both edible and poisonous, and it also tells how to take field spore prints.

[Suggested and reviewed by Nan and Randy]

Mushroom Collecting for Beginners
30 pp. 26 photos

free

from:
Information Division
Canada Department of Agriculture
Ottawa, Ontario

For instance it is simply not true that if a mushroom peels it is good to eat. The most deadly species known, the Destroying Angel, which caused over thirty deaths in one season near New York City, peels very readily." (p. 5)

SHAGGY MANE, p. 13: Mild illness has on rare occasions been reported as a result of eating this species. There is some evidence that this result was associated with the consumption of alcohol at the same time... It is fairly common... on... city dumps.

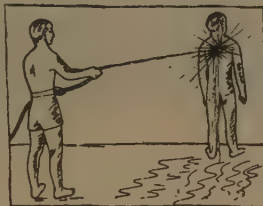
* Medicinal Herbs

Man certainly discovered Mother Nature's greatest tools, the herbs, before he ever developed any tools of his own. It seems that almost every plant has some kind of effect on man's physical and mental systems. Modern pharmacy is founded on those millenniums of herbalism practiced by witches, witch doctors, shamans, alchemists, folk doctors, old wives and grandmothers who delight in red raspberry leaves for constipation.

Back to Eden is directly rooted in that tradition, more so than Using Plants for Healing, which is serious and respectable (and thorough) on the subject without getting any too close to the fringes of herbalism, where Jethro Kloss dwells. Back to Eden is so controversial among the organized medicines that the publishers have been prohibited from advertising the book in any way, other than to say that it's available.

Both authors gives lots and lots of recipes for decoctions, infusions, poultices, expectorants, teas and fomentations. Kloss also gives you the water cure, high enemas, the Eliminating Diet and detailed treatments listed by disease.

-HH



Here is one of my favorite personal water treatments which I enjoy myself very much. It is douche spray. I have the operator stand maybe ten or fifteen feet distant if we have the room and have the stream of water come with a force strong enough so it will just hurt slightly. To begin with I have the water a little warmer than the temperature of the body or as warm as I can comfortably stand it and have him start on the back of my head and go up and down my spine clear down to my feet. Then I keep turning and he sprays well on the side of my neck and face clear around. Up and down, and so I keep turning around and around and have him spray right in my face. Then I turn my head down so it will hit on the top of the head and all over the head and keep turning until I am well warmed up. Then I turn around and have him turn the water a little cooler than the body temperature and start on the back of the head again and go up and down the spine clear to the feet and keep turning myself so he strikes every part of the body. I hold the feet up so it strikes the bottom of the feet and keep turning until it gets around the entire body. We keep this up for ten or fifteen minutes, striking every part of the body from the top of the head to the bottom of the feet. I enjoy this treatment very much.

CATNIP

Botanical Name: Nepeta cataria. Common Names: Catmint, catnip, cat's-wort, field balm, catnip. Medicinal Properties: Anodyne, antispasmodic, carminative, aromatic, diaphoretic, nervine.

Catnip is one of the oldest household remedies. It is wonderful for very small children and infants. Use the tea as an injection for children in convulsions. Very useful in pain of any kind, spasms, wind colic, excellent to allay gas, acids, in stomach and bowels, prevent griping. A table-spoonful steeped in a pint of water used as an enema is soothing and quieting, and very effective in insanity, fevers, expelling worms in children; also fits. A high enema of catnip will relieve hysterical headaches. It is good to restore menstrual secretions. Catnip, sweet balm, marshmallow and sweet weed make an excellent baby remedy. If mothers would have this on hand and use it properly, it would save them many sleepless nights and doctor's bills, and also save the baby much suffering. It is a harmless remedy and should take the place of the various soothing syrups on the market, many of which are very harmful. This wonderful remedy should be in every home. A little honey or malt honey may be added to make it palatable. Steep, never boil, catnip. Take infrequently. An enema of catnip will cause urination when it has stopped.

[Back to Eden]

* The Sinister Garden

A rather brief guide to some of the more common poisonous plants. Particularly important if you have small children who are likely to try eating leaves and flowers. Wyeth Laboratories makes drugs to help people—not napalm and they will furnish copies of the booklet free on request.

[Suggested and Reviewed by James J. Berryhill]

The Sinister Garden—A guide to the most common poisonous plants
1966; 44 pp.

free

from:
Wyeth Laboratories
Philadelphia, Pennsylvania 19101

Although chances of plant poisoning are small, they do exist. It would be beneficial to everyone—especially families with small children—to follow these practical rules:

1. Never eat any part of an unknown plant.
2. Eat only properly prepared foods from well-known sources.
3. Never chew on jewelry made from imported seeds or beans.
4. Never use anything prepared from nature as a medicine or "tea."
5. Learn to identify the poisonous plants in your neighborhood and home.
6. FIRMLY IMPRESS THESE RULES ON CHILDREN.

BACK TO EDEN

A Human Interest Story of Health and Restoration to be found in Herb, Root and Bark

by the late
JETHRO KLOSS
Herbalist



Published and Distributed by
LONGVIEW PUBLISHING HOUSE
Caldwell, Tennessee

Back to Eden
Jethro Kloss
1939; 696pp.

\$7.25 postpaid

from:
Message Press
Coalmont, Tennessee 37313

or WHOLE EARTH CATALOG

USING PLANTS FOR HEALING

by Nelson Coon

Author of Using Weeds Plants

AN AMERICAN HERBAL



Using Plants for Healing
Nelson Coon
1963; 272pp.

\$4.95 postpaid

from:
Hearthsides Press, Inc.
381 Park Avenue S.
New York, New York 10016

or WHOLE EARTH CATALOG

Aletris farinosa
LILIACEAE



ALETRIS FARINOSA
Liliaceae

Star grass, ague root, colicroot, starwort, true unicorn root, devil's bit

Aletris is not common for it requires special growing conditions. In sandy and grassy open woods it is found from Florida to Texas and north to Maine and Wisconsin. The rather tall stalk of insignificant flowers rises from a flat rosette of typical lily-like foliage.

And what is it to be used for? Potter says "As a female tonic it has but few equals and may be given in all cases of debility." Other writers say that it is a useful uterine sedative; most valuable in its effect on female organs; used in cases of chronic miscarriage; a general tonic, and good for flatulence, colic, rheumatism, hysteria, etc. Surely it should not be overlooked in any consideration of important American medicinal plants.

Althaea officinalis
MALVACEAE

Marshmallow, mortification root, sweet weed

In this plant we have the source of the original, non-synthetic, mucilaginous marshmallow paste. The roots are harvested in autumn, well dried, and the brown corky layer removed. The whitish inner root yields the substance used in marshmallow manufacture, the name of the confection coming from the plant.

An infusion of 1 ounce of leaves to 1 pint of boiling water, taken frequently, is the recommended internal dosage. Because of its mild yet healing qualities, it is recommended for teething babies.

[Using Plants for Healing]



RHODODENDRON (*Rhododendron*)

Toxic Part: Entire plant.

Symptoms: Like mountain laurel, the rubbery leaves of the various species of this plant contain andromedotoxin, which causes vomiting, muscle paralysis and convulsions, then death, within three to fourteen hours after a fatal dose has been ingested.

American Indian Medicine

The definitive book—all the tribes, all the medicines. The author is looking through the window of Western medicine and Western anthropology, but he is looking with detailed appreciation. Weedmunchers could find no better guide. The people who could use it best probably can't afford a doctor and drugstore and probably can't afford this book—another good reason for libraries.



American Indian Medicine

Virgil J. Vogel
1970; 583 pp.

\$12.50 postpaid

from:
University of Oklahoma Press
1005 Asp Avenue
Norman, Oklahoma 73069

or WHOLE EARTH CATALOG

Himes concluded that "American tribes had no effective methods of preventing conception," and that they relied mainly on abortion, infanticide, and abstinence to control family size.

Events have since proved how wrong Himes was, for not only have oral contraceptives come into general use in advanced countries, but Indian herbs were finally subjected to laboratory tests in the search for an effective oral means of controlling fertility, and some of them were found to be effective. Just as America was considered to be undiscovered before the white men found it, so the Indian drugs were unreal or of no account until the white men discovered them. This is one example among many of the ethnocentric attitude which has hurt the white men more than the Indian by delaying scientific inquiry into aboriginal herbal knowledge. The Cherokee drug may have been of no use, but what is striking here is the way it was rejected *a priori*, simply because white men knew of no oral contraceptive, and therefore, presumably, none existed. It is noteworthy that until recently it could not only be said that Indian recipes for controlling fertility had not been investigated, but that the very names of the drugs used were largely unknown.

Mesquite (*Prosopis juliflora* [Swartz] DC, and *Prosopis glandulosa* Torr.). *P. juliflora* was the *mizquitil* of the Aztecs (hence, *mesquite*), who mixed the leaves with other substances for an eye lotion when the eyes were hot and painful from sickness. Seventy years ago Bourke reported that this shrubby tree was used for the same purpose by Mexican Americans in Texas, and Hrdlicka found Indians of the American Southwest using it in a similar manner. The Mescalero Apaches ground the leaves to a powder, placed the substance in a thin cloth, added water, and squeezed the liquid on the eyes. The Pimas applied the sap to sore eyes. The Maricopas used the dried juice, ground fine, as a sore-eye remedy by applying the substance to the lids and later washing it off with warm water.

The skeletal remains of unquestionably precolumbian date [he concludes] are, barring few exceptions, remarkably free from disease. Whole important scourges were wholly unknown. There was no pathologic microcephaly, no hydrocephaly. There was no plague, cholera, typhus, smallpox or measles. Cancer was rare, and even fractures were infrequent. There was no lepra [leprosy] . . . there is as yet not a single instance of precolumbian syphilis. There were, apparently, no nevi [skin tumors]. There were no troubles with the feet, such as fallen arches. And, judging from later acquired knowledge, there was a much greater scarcity than in the white population of many diseases of the skin, of most mental disorders, and of other serious conditions.

The chief diseases to which the ancient Indians were subject, he added, were digestive disorders, particularly in children and older persons, pneumonia, arthritis, and localized maladies such as nutritional disorders.

Wild mint. This is the only indigenous species of *Mentha*. Dr. Clapp reported in 1852 that it was little used in medicine but would be a tolerable substitute for the European species when they could not be obtained.

The Cheyennes ground the leaves and stems of this species and boiled them for a medicine to prevent vomiting. Wild mint was used by all the Missouri valley tribes as a carminative, being steeped in water and sweetened with sugar for a drink. Because of its aromatic flavor, it was also used as a beverage. Among the Menominees it was combined with catnip and peppermint for a pneumonia remedy, being drunk as a tea and also used as a chest poultice. The Flambeau Ojibwas brewed a tea from the entire plant for use as a blood remedy. It was also used in the sweat bath, and the Pillagers made a tea of it to break fevers. The Potawatomis used the leaves or tops for fevers and as a stimulating tea for pleurisy. Whites have used the whole plant for its bitter, pungent, antispasmodic, antirheumatic, stimulant, and anodyne properties.

Wild mint (*Mentha arvensis*, var. *canadensis* L.) has not been official, but it contains a volatile oil from which pulegone and thymol (USP 1882-1950, NF 1950-) or carvacrol have been isolated.

The shock experienced by plunging into cold water after the sweat bath is parallel to hydrotherapy treatments commonly used today for patients suffering from nervous tension. Therefore it was probably effective for ailments of a psychosomatic nature.

Dear Dr. Hippocrates

Long-hairs are doing new stuff with their bodies and nervous systems that occasionally needs medical attention or perspective. Communication was blocked, however, by the social understanding that they aren't supposed to be doing that stuff. Dr. Schoenfeld and his medical advice column in the underground press cut through the blockage, and here came a spout of information as weird as it was useful. Good answers made the questions good.

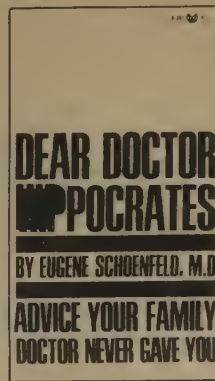
—SB

Dear Doctor Hippocrates
Eugene Schoenfeld, M.D.
1968; 112pp.

\$95 postpaid

from:
Grove Press, Inc.
315 Hudson Street
New York, New York 10013

or WHOLE EARTH CATALOG



For cosmetic reasons and sex appeal, I have been interested for some time in removing my pubic hair. I initially tried scissors which left stubbles; a safety razor leaves red marks and bumps which are both unattractive and painful. An electric razor is better but still unsatisfactory. I called an electrologist who removes hair, but she found my request most peculiar and refused to undertake the work.

Can you suggest a solution to the problem? Is there any reason to believe removal of pubic hair would be either unhealthful or dangerous?

Most Middle Eastern women routinely shave their pubic hair but I leave to you and your chafed friends the question of whether this practice will enhance your sex appeal. It does not seem medically dangerous.

Cautious use of a depilatory or one of the newer electric razors would seem the best solution to your problem. I would advise against permanent removal since you might someday move to a colder climate.

Note: Judging from the volume of mail received in response to the preceding question and answer, shaving pubic hair is definitely not confined to the Middle East. Excerpts from three letters follow:

A leading manufacturer of safety razors (Gillette) recently placed on the market something called a 'Scardy Kit.' The ad dealt with the problem of very brief bathing suits but the letter from the girl who shaves made me wonder. Perhaps she needs instructions in the use of lather or brushless cream.

She will have far better results if she uses an electric hair clipper such as the ones barbers use. The OOOO blade is the finest one and will not leave unsightly stubble, irritate the skin or cause abrasions.

For shaving, use alcohol—it eliminates abrasions and little bumps. This was told me by a psychiatrist.

I have seen countless old films in which Oriental bartenders slip their unsuspecting customers a "Mickey Finn" which invariably flashes them out of their skulls in about thirty seconds. Is there any such drug that, taken orally, would put a person out in less than a minute?

Two types of "Mickey Finns" were allegedly used. One was chloral hydrate, a sleeping preparation, which induces sleep after twenty or thirty minutes. Like barbiturates, it is especially powerful when given with alcohol.

Another "Mickey" favored by bartenders was a strong laxative, a favorite method for getting rid of undesired customers. But only in Hollywood do "Mickies" work within one minute.

Could you please tell me if it is possible to become pregnant without coitus if ejaculation occurred outside the vagina?

Pregnancy without coitus is possible if semen is at or near the entrance to the vagina. This may occur even if a girl is wearing underpants, according to some now well-informed female sources. Perhaps this helps to explain the phenomenon of virgin births. But it still seems a poor way to become pregnant.

Are there any ways to get birth-control pills besides having to go to a doctor to get the prescription?

No and for good reason. The doctor will take a medical history and do a gynecologic examination, including a Pap or cancer smear, to determine that there are no conditions which would be caused or made worse by taking birth-control pills. You should see your own physician or you may be eligible for care at your local health department or Planned Parenthood office. Doctor's aren't so bad. Some of my best friends . . .

(The following letter was sent air mail special delivery from New Orleans.)

Dear Dr. Schoenfeld:
Is it true that smoking incense can make you high? (I am mainly referring to the Joss incense sticks from India.)
Love,
Paul

Dear Paul:
I have not been aware that smoking incense could make one high. This effect would have been discovered thousands of years ago if it were true.

Are you sure it's incense you're smoking?
Sincerely,
Eugene Schoenfeld, M.D.

Handbook of Prescription Drugs

A drug ordered by brand name can cost several times as much as the same drug ordered by generic name. This book spells out the difference, its reasons, and how to get generic name prices. One way is, ask your doctor when he's prescribing a drug to prescribe the generic name.

—SB

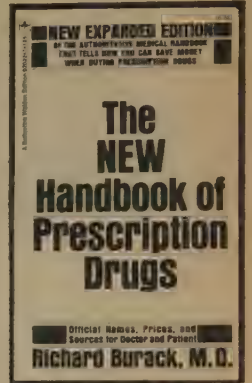
The New Handbook of Prescription Drugs

Richard Burack, M.D.
1967, 1970; 366pp.

\$1.25 postpaid

from:
Ballantine Books, Inc.
630 Fifth Avenue
New York, New York 10020

or WHOLE EARTH CATALOG



CELESTONE® Betamethasone, N.F.
0.6 mg tablets \$133.56/1000
0.2% cream 1.08/5 g tube
2.22/15 g tube

Betamethasone is a steroid chemically and pharmacologically similar to dexamethasone (Decadron®). Like dexamethasone, it is immensely expensive, and in nearly every case it can be replaced by less costly prednisone, for oral administration, or hydrocortisone, for topical administration. See Prednisone, U.S.P., and Hydrocortisone Ointment, U.S.P., in the Price Lists.

Nonetheless, in 1967 Celestone® was among the top 200 drugs prescribed to people of all ages. In 1966 it ranked 143rd among prescriptions written for the elderly; 312,000 prescriptions cost these consumers \$1,526,000.

CODEINE SULFATE, N.F.

The manufacture and sale of this narcotic substance and also its price are rigidly dictated by the United States government: 450 grams cost approximately \$350. Therefore, a single 15 milligram tablet has wholesale value of approximately one cent. A representative price to druggists is \$11.80 per thousand 15 milligram tablets (Vitarine). See price list for Codeine Sulfate, N.F.

The *Handbook* lists Codeine Sulfate, N.F., rather than Codeine Phosphate, U.S.P., because the latter, being more soluble, is more bitter to the taste.

CO-HYDELTRA®
5 mg tablets \$3.25/100

—Prednisolone, U.S.P.
Magnesium Trisilicate, U.S.P.
Dried Aluminum Hydroxide Gel, U.S.P.

Prednisone is preferable, and can be less expensive. See Prednisone, U.S.P., in the Price Lists.

The Ship Captain's Medical Guide

I doubt if there is a more complete book of paramedical information. It assumes there is no doctor within days or weeks of your situation. Bargain price.

—SB

The Ship Captain's Medical Guide

20th Edition, 1967; 356pp.

\$3.60 (30 shillings)

from:
Government Bookshop
P.O. Box 569
London S.E. 1, ENGLAND

or Blackwell's (see p. 81)

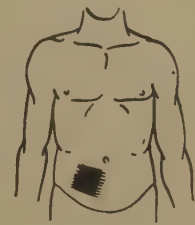


Fig. 111.

Appendicitis is by far the most common inflammatory condition in the abdomen and it occurs particularly in men under 30. It is not usually difficult to diagnose, but the abdominal pains must be distinguished from ordinary intestinal colic. Always suspect appendicitis with abdominal pains. An acute attack of appendicitis commences with pain which is vague in situation to begin with (though generally around the navel), but which after a few hours settles in the right side of the lower part of the abdomen. The pain is usually continuous, and it may or may not be very severe. There may be a loose stool at the beginning of the attack, but after that there is no desire to pass any motion again and constipation exists. The patient usually vomits once or twice during the first few hours of the pain.

Lange Medical Publications

The idea isn't that everybody should get so self-sufficient that we all become our own backwoods doctors; only that if you're so inclined, you have a right to the same medical references your doctor has available. One solution is to frequent a good medical school library. If one isn't handy, however, try Lange Medical Publications. This is a series of information-packed, paperback handbooks covering major areas of today's complex, specialized medicine. Good technical backup for the layman-oriented Emergency Medical Guide. You'll need a good medical dictionary (one I found in paperback is The Layman's Medical Dictionary, \$1.75 postpaid, from Frederick Ungar Publishing Co., 250 Park Avenue, New York, New York 10003), to get through some of medicine's polysyllabic terminology, but if you want the information, it's there. We're carrying the handbooks that would seem most practical in out-of-the-way situations. These are not how-to books, unless you have access to all the medical supplies a doctor uses. They'll help, though, if you want to know what's happening to your sick child, mate, self.

-HH

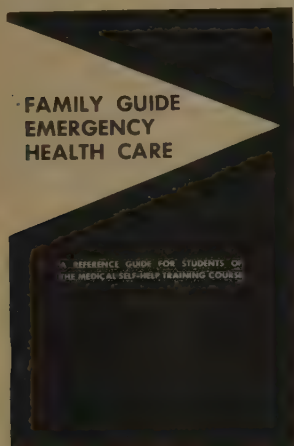
[Suggested by John Wirman, M.D.]

Family Guide Emergency Health Care

This booklet is designed as a reference guide for use with a 65-hour free course on making like your own doctor (not first aid but for real treatment) in times of disaster. The full "Medical Self-Help Training Course" may be a bit difficult for the non straights to get into, but the Family Guide has most of what you need to know (if you supplement it with a good technical reference).

Apparently not available on direct sale from the Government Printing Office, but may be readily obtained by writing a fairly straight letter to your local State Department of Public Health.

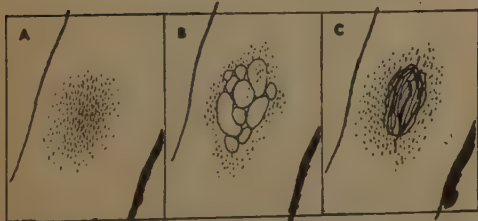
[Suggested and Reviewed by James J. Berryhill]



Family Guide Emergency Health Care
Office of Civil Defense, U.S. Dept of Defense
1965; 80 pp.

free

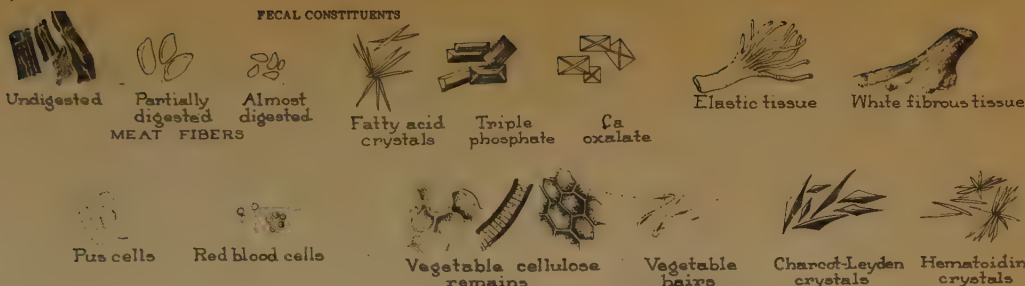
from:
your local
State Department of Public Health



A first degree burn only reddens the skin and if it does not cover more than 25 per cent of the body, usually is not serious.

In second degree burns blisters develop and there is now the very real danger of infection. Extensive second degree burns will require giving additional fluids to the burned person. Do not apply grease or salve. Cover with sterile or clean dressing.

Third degree burns even in a relatively small area are serious. The injury is deep and the underlying tissue has been destroyed. Keep this type of burn clean to avoid infection.



[Physician's Handbook]

Current Diagnosis and Treatment

Henry Brainerd, et al, editors
1970; 884 pp.

\$11.00 plus 40 cents handling

In large format, this more expensive volume covers some subjects of the other handbooks, with articles on Gynecology and Obstetrics, Psychiatric Disorders, Poisoning. Handbook of Medical Treatment has much of the same information.

Handbook of Medical Treatment

Milton J. Chatton, et al, editors
1968; 770 pp.

\$6.50 plus 20 cents handling

Handbook of Pediatrics

Henry K. Silver, et al, editors
1969; 682 pp.

\$6.00 plus 20 cents handling

Infants, children, teenagers.

Handbook of Poisoning: Diagnosis & Treatment

Robert H. Driesbach
1969; 478 pp.

\$6.00 plus 20 cents handling

The most complete manual on poisoning and treatment around.

Physician's Handbook

Marcus A. Krupp, et al, editors
1968; 640 pp.

\$6.50 plus 20 cents handling

This book probably would be the most help in finding out what's wrong with your sick one; it's all about diagnosis. It also is chuck full of all those tough terms and recommends a lot of laboratory tests you won't be able to use.

all from:
Lange Medical Publications
P.O. Drawer "L"
Los Altos, California 94022

or WHOLE EARTH CATALOG
(all books postpaid)

VIRAL HEPATITIS (Infectious Hepatitis and Homologous Serum Hepatitis)

Infectious hepatitis is the most common infection of the liver. It may occur sporadically or in epidemics. The liver involvement is part of a generalized viral infection but dominates the clinical picture. The incubation period is 2-6 weeks.

Homologous serum hepatitis is a viral infection of the liver transmitted by the inoculation of contaminated blood or blood products. The virus is similar to that which causes infectious hepatitis but is immunologically distinct, and little or no cross immunity exists between the diseases. The incubation period is 6 weeks to 6 months.

TREATMENT:
Bed rest is necessary until the initial acute symptoms have subsided and should be maintained judiciously until clinical and laboratory evidence of the acute disease has disappeared. Absolute bed rest beyond the most acute phase is not warranted. Return to activity should be gradual.

Keep a close check on the patient's actual intake and output during the acute phase. If (and only if) the patient is unable to take or retain food or fluids by mouth, give 10% glucose solution I.V. If the patient shows signs of impending hepatic coma, protein should be restricted to 40 gm daily and increased as improvement progresses. In general, dietary management consists of giving a palatable diet as tolerated.

Patients with infectious hepatitis should avoid physical exertion, unnecessary transportation, alcohol, all medication whenever possible, especially barbiturates, morphine, and sulfonamides; and surgery, especially with general anesthesia.

[Handbook of Medical Treatment]

DERMATITIS VENENATA ("Poison Ivy" or "Poison Oak")

A contact type of dermatitis due to a vegetable antigen found in Rhus toxicodendron (ivy) and Rhus diversiloba (oak). Dermatitis venenata may also result from contact with contaminated clothes or the fur of a dog or cat.

CLINICAL FINDINGS.

Eruption appears from several hours to a few days after contact with the plant. The lesion consists of multiple vesicles, papules, and blebs on an erythematous base and is accompanied by intense itching and burning. There may be swelling of the involved area. Vesicles often appear in linear streaks from brushing against twigs or leaves. In the severe forms, the nephrotic syndrome may occur.

TREATMENT

The objective of treatment is to counteract the poison in severe cases and simply to relieve itching in the milder cases.

A. Local Measures:

1. Small areas—Symptomatic relief is obtained with a soothing antihistaminic lotion or calamine lotion with phenol.
2. Larger areas—Exudation and swelling may be present.
 - a. Warm, moist compresses of Burow's solution (see p. 200)
 - or b. A bath in tub with luke warm potassium permanganate solution

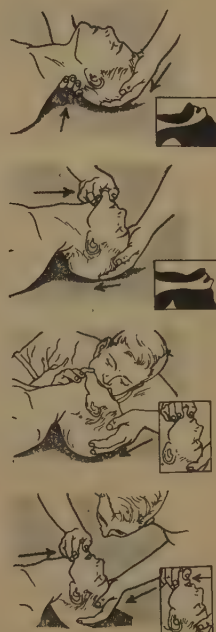
B. General Measures:

1. One of the barbiturates or chlorpromazine, as a sedative, and an antihistaminic drug as an antipruritic may be useful.
2. In severe forms—Local application of hydrocortisone cream, 1 to 2.5%, two to four times a day. Orally administered hydrocortisone or prednisone may be indicated

PROPHYLAXIS.

- A. Destruction of plants may be carried out by manual removal or by chemical means (2, 4-D or 2, 4, 5-T) near dwellings and in areas frequented by people.
- B. Avoid Rhus-infested areas or wear adequate protective clothing.
- C. Thorough washing of the skin with detergent soap and water within a few minutes of exposure may be of value in preventing the development of lesions.
- D. Desensitization procedures may be dangerous due to occurrence of anaphylactic reaction or other type of serious generalized allergic reaction.

[Handbook of Pediatrics]



(1) The operator takes his position at the patient's head.

(2) With the right thumb and index finger he displaces the mandible forward by pressing at its central portion, at the same time lifting the neck and tilting the head as far back as possible.

(3) After taking a deep breath, the operator immediately seals his mouth around the mouth (or nose) of the victim and exhales until the chest of the victim rises.

(4) The victim's mouth is opened by downward and forward traction on the lower jaw or by pulling down the lower lip.

[Physician's Handbook]

Chlorobenzene derivatives are synthetic chemicals that are stable for weeks to months after application. They are soluble in fat but not in water.

Commercial insecticide formulas consist either of insecticides in technically pure form, dry mixtures of several insecticides, or solutions of one or more insecticides in various organic solvents, especially kerosene, toluene, or other petroleum derivatives. These organic solvents are themselves toxic.

DDT seems to be one of the most toxic of these chemicals, at least in experimental animals. In humans, ingestion of 20 Gm. (2/3 oz.) of DDT in the form of a 10% dry mixture with flour has induced severe symptoms which persisted for more than five weeks, with gradual recovery. Virtually all fatalities reported in the literature have resulted from ingestion of DDT in various solvents. The toxicity of these solutions is greater than that of DDT in the solvent alone.

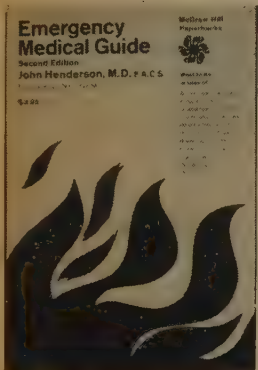
[Handbook of Poisoning]

Emergency Medical Guide

No book can substitute for a physician's care. Self-treatment of disease can be worse than no treatment at all. But the proper use of a home health manual may be invaluable in recognizing serious diseases and emergencies, rendering first aid, and treating common medical problems which do not require a physician's assistance. Outdoorsmen and members of isolated farms and communes, especially, should have on hand as much medical information as possible.

Henderson's Emergency Medical Guide is a useful book, including illustrated sections on bandaging techniques, mouth to mouth resuscitation, injuries to extremities, poisoning, snake bites, emergencies of infancy and childhood, and home care of the ill. Emphasis is placed on the prevention of accidents and disease. Some situations are covered which are not generally considered emergencies (except by the patient) such as painful menstruation. A chapter on normal human anatomy and physiology is included in order to make the rest of the book more intelligible to those giving first aid.

[Suggested and Reviewed by Eugene Schoenfeld]



Emergency Medical Guide
John Henderson, M.D.
1963, 1969; 556pp.

\$3.95 postpaid

from:
McGraw-Hill Book Co.
Princeton Road
Highstown, New Jersey 08520
Manchester Road
Manchester, Missouri 63062
8171 Redwood Highway
Novato, California 94947

or WHOLE EARTH CATALOG



FIG. 8-9. Procedure for reducing a simple dislocation of a finger, applying pull on each side of the affected joint.

Thumb. Do not attempt to set a dislocation of a thumb. Because of its complicated anatomy, reduction may require a minor operation. Cover the thumb with a protective compress, support the hand in a sling, and seek medical aid.



FIG. 4-1. Ejecting a foreign body stuck in child's windpipe by a sharp blow between the shoulder blades.

EPILEPSY.

It is important to keep the victim of the attack from aspirating or choking on vomited matter, but since most attacks will terminate harmlessly by themselves, regardless of what you do or do not do, just protect the victim from injury and bide your time. When he recovers, do not be unduly sympathetic—you may only embarrass him. Give him a drink of water or tea, protect him from curious onlookers, and be sure that he is well enough to go on his way or that he is taken home. If the condition is more serious, see that he gets to a hospital.

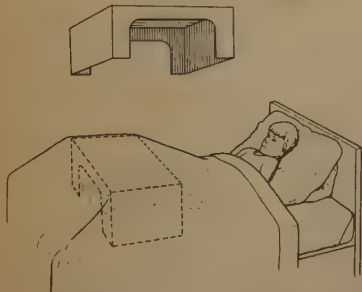
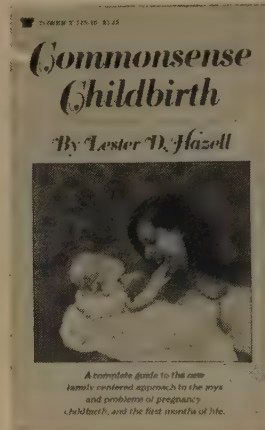


FIG. 15-1. A cradle to keep bedclothes off legs and feet, made from a cardboard carton.

Commonsense Childbirth

Mrs. Hazell writes from the personal experience of having had one child under anaesthesia, another using La Maze method, and a third at home. The book covers pregnancy, birth, and care of the newborn. It is gently positive about husband-coaching and breastfeeding. There's a good chapter on home deliveries. It's written by an intelligent woman, and it doesn't needlessly complicate what is really a very simple method of controlled breathing and relaxation.

[Reviewed by Pam Smith. Suggested by Judith Baggs]



Commonsense Childbirth
Lester D. Hazell
1969; 243pp.

\$1.25 postpaid

from:
Tower Publications
185 Madison Avenue
New York, New York 10016

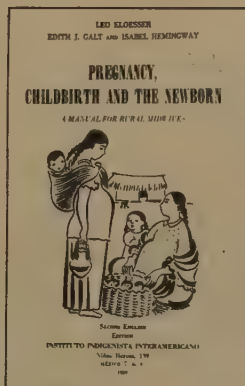
or WHOLE EARTH CATALOG

Pregnancy, Childbirth and the Newborn, A Manual for Rural Midwives

This manual was first published in 1950 to teach women and girls in China who had very little education. Since then it has been enlarged and adapted to other countries, so that it is now also published in Portuguese, Spanish, and English.

Lessons include anatomy, physiology of the female reproductive organs, the progress and conduct of pregnancy and childbirth, and the care of the newborn. The illustrations and directions will certainly aid anyone interested in a home delivery, since the manual is written for rural midwives without access to modern, sterile hospitals. The suggestions are practical and economical.

[Suggested and Reviewed by Haru Bekker]



Pregnancy, Childbirth and the Newborn, A Manual for Rural Midwives

Leo Eloesser, Edith Galt and Isabel Hemingway
1959; 150 pp.

\$1.25 postpaid

from:
Ninos Heroes, 139
Mexico 7, D.F.
MEXICO

or WHOLE EARTH CATALOG

COMPLICATIONS OF DELIVERY

Breech Delivery

In about 3% of all deliveries the breech presents. There is not much danger for the mother, but 10% of breech babies die, many of them from trouble with breathing (asphyxia). If properly handled the danger is much less.

Conduct. If a breech presentation is diagnosed in a first pregnancy, get help for the delivery or send the patient to a hospital, if possible.

If the patient has had other babies, or is in active labour, do your best to deliver the baby.

Measures to hasten delivery, such as an enema or having the mother walk, should be omitted.

When the presenting part is in sight, do not hurry but let the buttocks stretch the perineum slowly. Let the mother deliver the baby. When the whole body is born, support it on your left hand and forearm, using the middle finger of your left hand to find the baby's mouth and make a complete flexion of the baby's head. At the same time, press on the fundus with the right hand, or ask a helper to do so, and the head will be born. Do not pull on the baby at any time.

My own point of view on home delivery is influenced by the fact that all my experience with it has been positive. Babies born at home seem better to me in every respect, and my students who have had both home and hospital deliveries prefer home. These babies are born crying and healthy, and with their mothers they continue in the pattern of life they have been living the last nine months.

What a mother eats has a profound effect on the outcome of her pregnancy and on her baby's start in life. A number of very convincing studies tie complications of pregnancy to a poor-quality diet. Not only do many minor annoyances of pregnancy vanish when ample amounts of necessary elements are added to the diet, but the baby is basically affected as well. One study found that 94 percent of babies born to mothers whose diet was excellent were perfect specimens, whereas 92 percent of babies whose mothers' diets were inadequate in as little as one element were defective in some way. It has been my observation that the women who feel on top of the world are usually the ones who take good food seriously and concentrate on eating types of food that contain the raw material with which to maintain health and manufacture a healthy baby.

You certainly don't have to become a nutrition expert, however, to provide yourself with high-quality food. The trick is to keep your eye on how much protein you eat and at the same time to see that you get something every day from each of the four major food groups: 1) meat-egg; 2) milk-cheese; 3) vegetable-fruit; 4) bread-cereal. If we want to use a mnemonic device, we can call this the P-4 plan: Eat lots of protein in each of the basic four every day.

As soon as the bearing-down reflex is established, second stage is begun. For the next few contractions you push your baby down two steps, and he slides back one. This can be discouraging if you don't realize that this is the normal pattern of labor. However, when you stop to think about it, this makes good sense. In this way your passages are dilated gently and slowly by the plunger action of the baby, the baby has fluid squeezed from his lungs, his skin is stimulated preparatory to his existence in a world that will be constantly touching him, and then during the interval between contractions everyone rests.

What does the bearing-down reflex feel like? Everyone has experienced this to some degree. It is very like the pushing of a bowel movement, only more sustained and more demanding. It is far easier not to push when one is having a bowel movement than when one is having a baby. However, the second-stage contractions are not, as a rule, painful. In fact, they are very satisfying. You may be surprised at the noises you make. So may your family.

The first milk that flows is the high-protein, nonfat type. This fairly gushes into the baby's mouth. Later when the flow is slower comes the cream. The cream sticks to the baby's ribs because it digests more slowly than the nonfat milk. It is also more filling. So it is providential that while the baby is nursing vigorously in the first flush of hunger, he does not get his high-calorie dessert. Entrée before ice cream is a habit formed early!

Thus a baby knows best how to regulate how long he should nurse. He does this according to the needs of his stomach as well as for the joy of cuddling with his mother.

The let-down of the milk is a conditioned reflex. In the early days of nursing the milk flows frequently at only the thought of the baby or even the cry of someone else's baby. Later this becomes conditioned to the particular baby's sucking. Hence the working mother can go all day long and not feed her baby, and her breasts will remain flat and comfortable. As soon as her baby takes a few sucks, the milk flows in any quantity he needs.

We know that gross brain damage rises in direct proportion to the amount of analgesic medication given to the mother during her labor. The baby of an anesthetized and dopey mother will have been subjected to the same or greater degree (relative to body size) of anesthesia and dopiness at a time when he needs to breathe well and when his circulation should be operating at peak efficiency.

Yet the educated laboring woman finds that at every turn she must defend her position that she doesn't need analgesic medication as one attendant after another presses her to accept such nostrums. She may even have to apologize for not wanting to take medicine which she knows could jeopardize her baby.

★ Childbirth Education

ICEA is engaged in furthering the cause of family-centered maternity and infant-care and believes in closer roles for the father during childbirth and periods before and after, breast-feeding, the La Maze natural childbirth method, and generally, further education about childbirth for all concerned. They answer specific questions about childbirth, help organize classes, and "make available through the ICEA Supplies Center significant information on all aspects of childbirth education and family-centered maternity and infant care."

Information

from:
International Childbirth Education Association
P.O. Box 5852
Milwaukee, Wisconsin

Catalog

free (presumably)

from:
International Childbirth Education Association
208 Ditty Building
Bellevue, Washington 98004





Kama Sutra Oil

This material lubricates, warms, feels good, smells good, and tastes good. It's for making love with.

Kama Sutra Oil
4 oz. bottle

\$4.25 postpaid

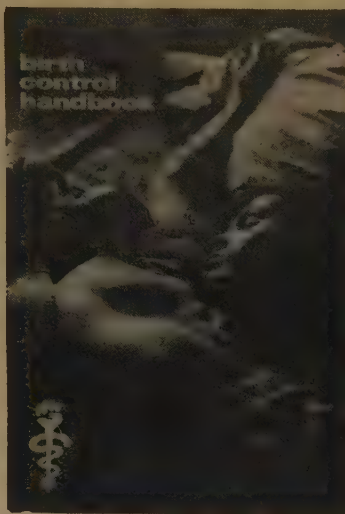
from:
Kama Sutra Om
1800 North Highland
Los Angeles, Ca. 90028

or **WHOLE EARTH CATALOG**

Birth Control Handbook

Fantastic. Definitive, thorough, heads-up, loving treatment of the whole birth control picture. A book by the future for the future. There's nothing in the past like it.

-SB



Birth Control Handbook
McGill Students' Society
1968, 70; 48pp.

\$.25 for one, 10 cents for each additional please send cash

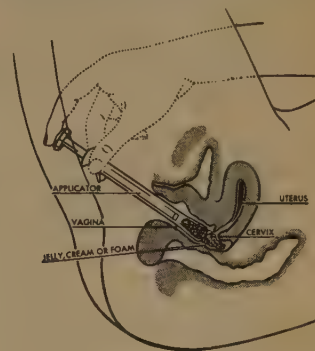
from:
Birth Control Handbook
3480 McTavish Street
Montreal 112, Quebec,
CANADA

Condoms can be bought from a drug store without a prescription. The most common retail price for a good brand is about 3 for \$1.25 although the prices vary considerably, especially with lubricated and skin condoms.

It is common practice to keep a condom in a wallet or pocket until it is needed. This is a serious mistake. The combination of moisture and heat provided by contact with the body leads to deterioration of the condom. The sheath should never be kept in a wallet or pocket for any length of time; it is best to leave condoms in the small cardboard containers in which they are usually sold. Kept this way, without excessive heat or moisture, condoms can be stored for several months.

"Tip" condoms, or condom caps, which fit only around the glans of the penis should never be used, since they are likely to slip off after orgasm.

All vaginal spermicides have a high failure rate and should not be used by women who must not become pregnant. The vaginal spermicide contraceptive method is not as effective as the diaphragm and jelly or the condom.



Application of spermicidal preparation

The aerosol foam (used with an applicator) is a recent variation of the cream method. It works on the same principle as the jet or cream alone, except that the agent is packaged in a container under pressure and is extruded as a foam into the applicator when the latter is pressed against the container. The foam has special qualities that make it particularly acceptable. A smaller amount by weight is delivered, so women complain less of messiness; cost per application is reduced; and furthermore, the vehicle for the non-reactive base has characteristics similar to those of a "vanishing cream" so that leakage from the vagina after coitus is greatly reduced.

Snugli Baby Carrier

This is the most useful baby carrier I have ever seen. It can be used with a day-old baby, because of the head support, as well as a 2 year old—but not simultaneously since to enlarge the pack tucks are taken out as the baby grows.

A Snugli provides a mother with a baby carrier that allows her to have both hands free. New mothers can attend classes, work, shop, do housework, etc. without having to find a babysitter. Needless to say babies love it. If you can't stand to live with a colicky baby, put it in this pack and fix dinner or whatever.

The Snugli is of extremely high quality (will bear several machine washings and dryings per week and teething; being stuffed in purses and being left in the rain.) It is very comfortable as long as the shoulder straps are kept tight so that the weight is not carried on the small of the back.

I recommend this as second only to diapers to prospective parents.

[Reviewed by Mary Jane Markley.
Suggested by Chris Brown]



Snugli Baby Carrier

\$28.95 postpaid

from:
Snugli
Route 1, Box 685
Evergreen, Colorado 80439

or **WHOLE EARTH CATALOG**

Conception control necessarily carries liberating potential for women.

A woman may safely engage in pleasurable sexual relations without automatically submitting to the humiliating protective-dependent relationship with a man which is ordinarily imposed. Also, a woman now has the option of bearing and socializing children—it is no longer the sole source of her sexual and social identity. Once "out of the kitchen" a woman can begin to use her mind and body towards socially productive ends by joining labor forces and professions on a level of equality with men.

The diaphragm should not be inserted more than 2 hours before coitus. Also, since it takes up to 6 hours for the spermicidal preparation on the rubber dome to destroy sperm, the diaphragm must not be removed until six hours after the last ejaculation. The diaphragm may be left in place for as long as 24 hours after which it should be removed and washed with soap and water.



Although there is much disagreement among doctors as to which is the best IUD available, it seems that the Lippes loop (size D, a little more than 1 inch in diameter) is the best one. The Lippes loop is preferred because it has lower expulsion and pregnancy rates, and fewer side effects. Other advantages of the loop, which it shares with such devices as the Margulies coil include: the ease of insertion and removal, and a nylon appendage which allows the woman to check for the IUD's presence. Although sufficient research has not been done, it appears that effectiveness and acceptability of the Saf-t-coil are similar to those of the loop.

There has not been a single case reported in which an IUD caused cancer. IUDs are not the cause of any kind of cancer.

The most common method of male sterilization, an operation known as a *vasectomy*, has no effects on a man's sexual desire or virility, except perhaps to enhance it by relieving him from fears of having another child. The operation involves severing the vas deferens thereby preventing the passage of sperm from the testicles to the penis. Since the contribution of the testes accounts for only about 1/10 of the volume of the total ejaculate, the actual quantity of seminal fluid is not appreciably diminished.



Mechanical action of diaphragm

*** Population Services**

Here's a non-profit organization which supplies contraceptives, at low cost, by mail. Condoms and contraceptive foam are their main items, but they also have several books and publications with useful information and low prices. They have a policy of charging lower prices to young and unmarried people.

Information

from:
Population Services, Inc.
P.O. Box 1205
Chapel Hill, North Carolina 27514

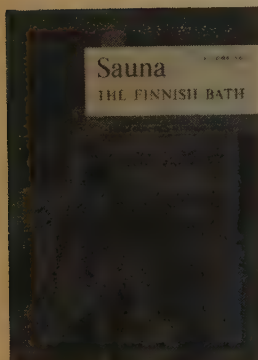
Condoms	1 Dozen	3 Dozen	12 Dozen
Sultan, Plain Transparent	\$2.45	\$4.95	\$14.00
Sultan, Wat Lube Opaque	\$2.55	\$5.25	\$15.00
Koin-Pak Gold Foil Coins	\$2.75	\$5.50	\$16.00
The Huggar Form Fit Dry	\$2.75	\$5.50	\$16.00
The Conture Silicone Lube Formed	\$3.00	\$6.00	\$18.00
The Trojan, The Old Favorite	\$3.00	\$6.00	\$18.00
Foams			
EMKO Complete Foam Kit	\$2.75	Twentisec pregnancy test: \$6.50 plus 50 cents postage and handling	
EMKO Aerosol Refill (45 gm.)	\$2.55		

Sauna

The only book available on Saunas: what they are, their history, how to use and enjoy, and how to build one. Although the construction details are not extensive, there is a list of about 20 Sauna manufacturers who will send you free construction plans, in hopes that you'll buy a heating device from them.

—SB

[Suggested by Stan Gould]



Sauna: The Finnish Bath
1965; 87pp.

\$3.95 postpaid

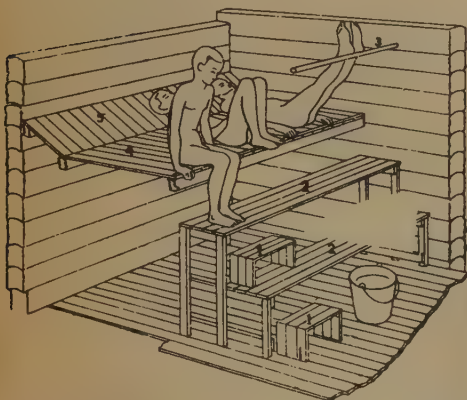
from:
Stephen Greene Press
120 Main Street
Brattleboro, Vt. 05301

or **WHOLE EARTH CATALOG**

The simplest form of the family sauna is a one-room hut built of logs, with a large rudimentary stove upon which rocks are placed. . . The heat of the sauna is non-radiant; that is, it does not radiate directly toward the bather but rather is absorbed by the stones which emit the heat into the air. The indirect heat is gentle and constant. . . The stones are heated until they become red hot. . . ideal temperature 190-200 degrees. . . water is thrown on the stones but the air remains dry because moisture is instantly absorbed by the wooden walls. . . traditional sauna includes beating with leafy birch branches, washing, and a plunge in a nearby lake or roll in the snow outside. Then follows a necessary rest while the body cools down completely.

The need for a perspiration bath has arisen in those countries where people have had to do exceptionally heavy physical work. . . After heavy work the limbs had to be made supple and strengthened before work could continue.

BUILDING A FINNISH SAUNA



A practical arrangement: 1) small stools used as steps; 2) steps; 3) rail for propping up feet; 4) platform; 5) headrest.

If possible the sauna should face west, as people usually go into the sauna in the evening, very often at sunset. Then the rays of the setting sun streaming into the sauna room give one a feeling of intense calm. And, lying on the platform, looking out on the lake, one experiences a delicious foretaste of what the cool waters will offer the bather who plunges from the heat of the sauna into their depths.

Interior walls and ceiling are often built of kiln-dried, unfinished redwood, which does not shrink, does not warp, and is a poor heat conductor. Another excellent wood is cedar, which not only shares redwood's good properties but also emits a pleasant odor and does not stain with moisture.

Nailing should be done with hot-dipped galvanized nails to avoid stains from rust; nails should be counter-sunk whenever it is likely that a bather will touch them in the hot room. Tongue-in-groove paneling disposes of this problem in wall construction; benches can be screwed from below.



Boffing Equipment

We hereby nominate Jack Nottingham for a Nobel Peace Prize for the first significant advance in weaponry since the encounter group. As Gerd Stern used to say a lot, "contact is the only love," and these foam swords permit contact—with an un-pulled punch and no corporal damage. However the release of interpersonal energy is only one of the uses of boffers. They are a fine game, builder of psychic and physical skill. For one thing you learn about temper: it's an obstacle and a hazard—you get cut to pieces every time. You learn about other stuff as well, no teacher required; the wisdom is inherent in the doing. As the inventor proclaimed at the end of a public boffing match at the Fillmore West: "The sword is mightier than the pen."

—SB

[Suggested by Heliotrope]

Boffing Equipment
(2 foam swords, 2 hand protectors, 2 goggles)

\$11.00 postpaid

from:
Jack Nottingham
190 Emmet Court
San Francisco, Ca. 94110

or **WHOLE EARTH CATALOG**



Waterbeds

There's a lot of talk about waterbeds these days. We've been sleeping on one for a year now, and it's been a good year. It's like swimming without getting wet. It's womb. It rocks and glugs. You feel good with two hours less sleep. A variety of wave motions can be induced, adding interest to life's little pleasures. If the box is made take-apart, you can take your bed with you in a small package. It's a strong personality to have in your house. (People have broken into our place just to sleep in the bed.) "Real" waterbeds are the ones from Innerspace Environments, designed by Charles Hall who spent two years perfecting the bit. They're heated to body temperature and controlled by a sensitive thermostat. Unheated waterbeds are nearly useless because they take out all your body heat. A cheap control will allow too great a temperature range and you'll either bake or freeze in cycles. They can be any size, but they're a heavy trip. A 6'x7'x10" deep is more than a ton. Hospital versions prevent bedsores. Any version gives nearly perfect, even support; no more sore necks and stiff arms. There's really nothing quite like it. Once in, you're hooked.

[Reviewed by J. Baldwin]

Information free

from:
Inner Space Environments, Inc.
584 Pacific Street
San Francisco, California 94133

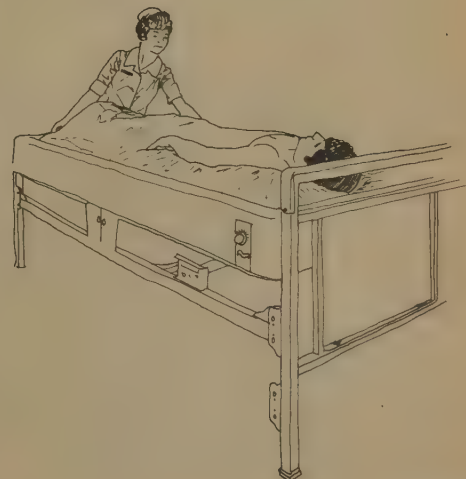


King size (86"x72"x15"), with heater, 125 lbs. — **\$595.00**

Queen size and Twin size in preparation.

The Pleasure Pit. (8 feet by 8 feet) **\$995.00**

with sound system **\$1995.00**



66 Jiffy Foods Corp. . . . used to put 40 per cent meat and 60 per cent gravy in frozen meat dishes. . . . Then it discovered that it was selling pound-and-a-half packages at higher prices than its chief competitor got for two-pound packages. It used 25 per cent meat, 75 per cent gravy.

"So Jiffy adopted its competitor's ratio and Bernard J. Erenstein, Jiffy president, was happy to report . . . that profits rose 329 per cent. . . ."—LOS ANGELES DAILY JOURNAL.

CU's engineers connected the *Model 100 Noise Reduction Unit* (a small box, 13x5x9 inches) to a home-type reel-to-reel tape recorder of high quality, with a signal-to-noise ratio typical of high-quality home recorders. We checked to make sure the noise-reducer did not degrade the recorder's overall frequency response. It didn't.

Our measurement showed that the noise-reducer improved the signal-to-noise ratio of tapes recorded at 7½ inches per second (ips) by about 5 decibels (dB); recordings made at 3¾ ips were improved by about 6 dB. Could we hear the improvement? Definitely.

We tried taping disc recordings. We judged that the performance of our home-type tape recorder with the Advent device at least equaled, at 7½ ips, the performance of our large professional tape recorder running at 15 ips.

Consumer Reports

Consumer Reports is a comfort. When the time is come to buy some goodie—color television, or a hi-fi, or a sewing machine—CU (Consumers Union) is there with the information on what's the best, or the best buy, or the healthiest of the brands available. i.e. how not to get burned (one anticipates the CU research on brand-name psychedelics). Consumer Reports is a monthly magazine with articles on various classes of products and various cases of marketing misbehavior; the December issue is the *Buying Guide*—a dense compendium of all the quality/price information, available separately for \$1.95. I only wish the magazine would print ads, give the manufacturers a place to beef back, live up the *Liberal Hour*.

—SB



The Model 100 Noise Reduction Unit hooked up to a tape recorder

CONSUMER REPORTS

Boys' Shoes

- Slide Projectors
- Portable Washing Machines
- FM AM Portable Radios
- Cocktail Mixers
- Masking Tapes
- Fish Sticks



Consumer Reports

\$8.00 per year (monthly) in U.S.

\$9.00 per year other countries

from:
Consumers Union
Mount Vernon, New York 100 10550

Consumer Reports Buying Guide

\$2.65 postpaid

from:
Consumers Union
Mount Vernon, New York 10550
or WHOLE EARTH CATALOG



Bones long enough to stick in your throat turned up in samples of Fres-shore, Mariner's and Norseia [fish sticks.]

Hong Kong

If you have the time (5 weeks or so), Hong Kong offers fantastic deals in cameras, tape recorders, motorcycles, binoculars, calculators, suits, etc. Prices generally include seamount costs. You pay import duty (like \$15 on a \$118 Canon FT-QL—that costs \$280 in the States), and Customs obliterates the trademark. Catalogs are free.

—SB

[Suggested by Terry Link, Thomas Dixon, Jas Hayden, Anne]

Write to:

T. M. Chan and Company
P. O. Box 3881
Hong Kong

Far East Company
P. O. Box 6784
Kowloon, Hong Kong

Albert White and Company, Ltd.
K. P. O. Box K-202
Kowloon, Hong Kong

Universal Suppliers
P. O. Box 14803
Hong Kong

The Armchair Shopper's Guide

This cheerful book is an uncommonly practical compendium of access. Listed here are all of the major and many of the minor mail order shippers in the world. To a large extent the shippers carry items not available locally. Each source is very well described and compared with its competitors. The Armchair Shopper's Guide is more general than us, and geared to wealthier readers, but if you use the *WHOLE EARTH CATALOG* very much, you can almost certainly use the Shopper's Guide.

—SB

The Armchair Shopper's Guide

Delphine C. Lyons
1968; 218 pp.

\$1.50 postpaid

from:
Essandess Special Editions
Simon and Schuster, Inc.
630 Fifth Avenue
New York, New York 10020



or WHOLE EARTH CATALOG

NIKON Photomic FTN Camera. (Japan)

This is a new Nikon F 35mm Single Lens Reflex Camera. Turns Nikon F into through-the-lens metering system. New removable PHOTOMIC FTN Finder with two CdS cells, gives integrated through-the-lens reading at full aperture. Shutter speed 1 to 1/1000 second, automatic return mirror, self-timer, flash synchronization, viewfinder can be exchanged with eye-level finder. Special pentaprism coating to eliminate reflections. Needle in finder, also in meter window or prism housing, coupled to f/stops speeds. (Shipping Weight 5 lbs.)

CAMERA with Auto Nikkor f/2.0 50mm lens & leather case	US\$240.00
CAMERA with Auto Nikkor f/1.4 50mm lens & leather case	267.00
CAMERA with Auto Nikkor f/1.2 55mm lens & leather case	300.00
CAMERA BODY only (without lens but with leather case)	191.00

NIKON Nikkormat FTN Camera. (Japan)

This is a new 35mm Single Lens Reflex Camera. It has two CdS cells inside fixed pentaprism finder on either side of eyepiece. Each cell is mounted in tube about 6mm behind collector lens to protect against residual reflections. Match-needle in finder coupled to f-stops, speeds. Meter is "on" with transport lever in advance position; new metal six-blade focal-plane shutter; X K to 1/125, plus M. Shutter speed 1/1000 second plus B; focusing grid spot; instant mirror return; full diaphragm automation; independent mirror lockup and release; depth-of-field preview; self-timer; ASA 12-1600, with Battery Checker (Shipping Weight 4½ lbs.)

CAMERA with Auto Nikkor f/2.0 50mm lens & leather case	US\$148.00
CAMERA with Auto Nikkor f/1.4 50mm lens & leather case	174.00
CAMERA with Auto Nikkor f/1.2 55mm lens & leather case	210.00
CAMERA body only without lens but with leather case	116.00

NIKON LENSES

Auto Nikkor 20mm f/3.5 lens in plastic case	US\$8140.00
Auto Nikkor 24mm f/2.8 lens in plastic case	115.00
Auto Nikkor 28mm f/3.5 lens in plastic case	85.00

PORTABLE TAPE RECORDERS

SONY

MODEL TC-50-Handy, Compact Cassette-Corder.

POWER REQUIREMENTS: AC117V, 60Hz. with AC power adaptor, 2 watts; DC4.5V. TAPE SPEEDS: 4.8cm/s (1-7/8 ips). TRACK: 2-track (monaural). REEL CAPACITY: Sony Compact Cassette Tape or equivalent. POWER OUTPUT: 250mW. DIMENSIONS: 90 (W) x 37 (H) x 135mm (D) (3-9/16x1-7/16x5-7/16) SHIPPING WEIGHT: app. 4 lbs. US\$ 88.00

MODEL TC-75 - Handy Sony Cassette Corder.

POWER REQUIREMENTS: DC 6V, AC 3W; 100, 110, 120 or 220-240V, 50/60 Hz. TAPE SPEEDS: 4.8cm/s (1-7/8 ips). TAPE: Sony Cassette Tape, C-60, C-90. FREQUENCY RESPONSE: 50-10,000 Hz. at 4.8cm/s. SIGNAL-TO-NOISE RATIO: Better than 46 DB. POWER OUTPUT: 1W. INPUT PROVISIONS: 1 microphone input, 1 auxiliary input, 1 remote control input. OUTPUT PROVISIONS: 1 monitor output. DIMENSIONS: 130(W)x 60(H)x238mm(D) (5-1/8x2-3/8x9-3/8) SHIPPING WEIGHT: app. 5½ lbs. US\$ 52.00

MODEL TC-110 - Cassette Cartridge Recorder with end alarm. Instant recording and playback anywhere.

POWER REQUIREMENTS: DC 12V; AC 110, 120, 220 or 240V, 50/60 cycles. TAPE SPEEDS: 4.75cm/s (1-7/8 ips). TRACK: Double track, monophonic. TAPE: Sony Compact Cassette Tape C-60. FREQUENCY RESPONSE: 50-10,000 Hz. POWER OUTPUT: 1 Watt. DIMENSIONS: 140(W)x60(H)x237mm(D) (5-9/16x2-3/8x9-3/8). SHIPPING WEIGHT: app. 5 lbs. US\$ 58.00

MODEL TC-123 - All transistor, 2 track tape recorder with completely automatic recording level control system.

POWER REQUIREMENTS: AC 10 watts; 110, 120, 220 or 240V; 50/60 cycles. TAPE SPEEDS: 9.5cm/s (3½ ips), 4.75cm/s (1-7/8 ips). TRACK: Double track. REEL CAPACITY: 8cm (3"). POWER

[from T. M. Chan & Company Catalog]

You'll have to pay the sales tax if the mail order house is located in your own state or municipality, but you aren't required to pay it to firms in other states, nor may they charge you their local sales taxes. Although this has always held true for most mail-order houses, in the past such big firms as Sears, Roebuck and Co. made a practice of collecting the various local sales taxes from their customers and passing them on to the state or city involved. However, a recent court ruling has declared this illegal. So, if you live in a place such as New York City you can save a pretty penny (5 per cent) by buying by mail from out-of-state firms.

Katherine Smith, P. O. Box 121, Fort Worth, Texas 76101 (catalog 25 cents) offers new recordings made by old-time country and western singers, in partnership with the Bluebonnet Recording Co. In addition, she issues lists of old 78's for collectors.

Sunray Yarn House, 349 Grand Street, New York, New York 10002 (catalog free; yarn samples 50 cents) offers an enormous selection of discount yarns and knitting supplies, as well as some art needlework.

Australian Gem Trading Company, 294 Little Collins Street, Melbourne C 1, AUSTRALIA (catalog free): rough-cutting opal is available here at \$1 per ounce for the lowest quality, going up to \$60 and over for the more valuable types. Cut and polished stones and opal doublets are also available. In addition, there's Australian sapphire (both blue and black star), rough and polished.

The Putney Nursery, Putney, Vermont 05346 (catalog free) sells wild flowers by mail—not the wild flowers that have become accepted as regular garden plants, but such blossoms as harebells, trillium, wild ginger, and the like.

Katagiri & Company, Inc., 224 East 59th Street, New York, New York 10022 (catalog free): This well-known Japanese grocery has everything for the Japanese cuisine—dried bean curd, dried seaweed, pickled ginger, candied baby abalones and baby octopus (an 8-oz. can is 75 cents) and so on. Confections include bean jelly (16-oz. for 70 cents) and seaweed candy (6-oz. for 39 cents).



*** Factory Stores**

The factory store is one of the first places to go if you want to get certain merchandise cheaply. This guide lists direct-from-the-manufacturer outlets for clothing and other personal and household items, but there are many other manufactured goods to be sought out in the same way. This guide is only regional, but it's listed here to stimulate bargain hunters in other parts of the country as well as readers who live in the New England area. Why couldn't someone go out and compile the same sort of valuable information for whatever area they lived in, and make it available through the community media serving the people there? You probably have enough friends, each with his own favorite source of inexpensive goods, that you'd be able to start your research with lots of good leads.

-HH

Factory Stores of Western New England Shopping Guide

A. Miser & A. Pennypincher

\$1.95 postpaid

from:
Pequot Press, Inc.
Essex, Connecticut 06426

*** Gohn Brothers**

Gohn Brothers supplies chiefly the stricter Mennonite orders and the various orders of the Amish Mennonite people all over the country. Since the Amish have managed communal living successfully for about 350 years, I figure at least some of their practices must be valid. Their clothing in particular is comfortable, durable and of low price. I can recommend from experience their broadfall work pants (no fly: broad button flap like lederhosen in front), overshirts (plain jacket with two roomy pockets on the inside) and overcoats (Heavy Dark wool, with cape). Many hard to find practical items listed, as well as a broad selection of rather plain yard goods. Service is fast and courteous. Once on their mailing list you get about four to six catalogs a year.

[Suggested and Reviewed by Peter R. Hoover]

Catalog free from:
Gohn Brothers
Middlebury, Indiana 46540

MEN'S BROADFALL WORK PANTS

- No. 1190 10-oz. Sanf. Blue Denim.....\$4.49 pr.
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AMISH OVERCOATS\$64.95
With Cape\$69.95

100% navy blue melton. Made in single or double breasted style. Send for samples. Complete instructions on how to measure are furnished on request.

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Sizes 32 to 44 chest measure. 60% wool blanket lined, hooks and eyes. No outside pockets. Two inside pockets. We have all new patterns now. Cut with very roomy armholes and large sleeves so that they may be worn easily over other garments.

LADIES' BLACK SHOES

Low Heels. Black Cushion Crepe Soles. Oxfords.

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- No. 549WW E width, sizes 5 to 9, Plain Toe.....\$6.59 pr.
- No. 560 C width, Slip-on Moc. Toe, Sizes 4 to 9.....\$6.59 pr.
- No. 386 E width, Wedge. Plain Toe, Sizes 4 to 9.....\$6.96 pr.

Suburban Guerrillism

Someday, after I've lived in the suburbs longer, I'd like to write an essay about my vision of the suburban guerrilla. He's a definite phenomenon. There's a sizeable population of them here in the San Francisco Bay area, men and women out to enjoy the advantages of town life without paying the customary penalties. Every suburban guerrilla probably has his own definition of himself, but my own sense of him is this: he has a job, but not a career. He likes the comforts, but doesn't want to go into debt for them. He makes distinctions between things that are good and things that are merely expensive. He may go in for elegance or he may dig the funky scene. Hippies, after all, are urban guerrillas. But hippies are kids mainly grooving on each other in special enclaves, and that isn't quite what I'm talking about. I'm talking about people who see the possibility of a rich and abundant adult life within the context of those same suburban communities generally condemned as such hopeless wastelands that 'real' life cannot be supported there. The suburban guerrilla I have in mind is one of the suburbs, as well as in them.

He challenges the assumption that the suburban context is hard, absolute, impenetrable, like plastic. To him, more like a piece of cheesecloth, full of holes to breathe through, and to wind in and out of, like a morning glory, or a pole bean. He borrows much of his point of view from the orientals. He realizes that life goes on in the suburbs just like every other place, even if most of the people there are too blind and deaf to see and hear it. The guerrilla lives by his wits, one day at a time. This makes him alert and alive. He has a talent for cultivating the holes in his cheesecloth. One hole might simply be the way the world is at six a.m. Another might be first-hand knowledge of all the footpaths in the neighborhood. He creates his freedom here and there and now and then, and by diligence winds up with as much as any conscious man anywhere. His landscape is small and patterned, but there are discoveries to be made on it, discoveries that can feed his own life at the same time they are important to the culture. I know of one elderly couple that subsists almost entirely on the food they raise in their organic garden in the backyard of their home in suburban Menlo Park. As far as I'm concerned, the trip those two people are on, the life they are proving possible, is the most inspiring radical activity in all of San Francisco's radical environs.

One needn't romanticize his life as much as all that, however, to find Champagne Living on a Beer Budget worthwhile manual. Anybody interested in bargains ought to have it. It's loaded with facts, tips and information on good deals in all the important categories. Food, clothing, shelter, real estate, automobiles, household appliances, medical things, taxation, funerals, recreation, retirement, consumer co-ops, travel, babies, insurance, charities, and more. It's entertainingly written; yet the rhetoric never gets in the way of the information. The people who wrote it obviously want to beat the money rap as much as any of us. They also want to live well. Their book will be of considerable help to other people trying to do both, simultaneously.

How to Live on Nothing has a lot in common with Champagne Living on a Beer Budget, but there's enough difference between the two to make them more companion pieces than competitors. The emphasis in Champagne Living is on the cheap accumulation of necessary things. How to Live on Nothing covers some of that ground too, but its main concern is the development of personal skills to help you get free of the need to pay people like carpenters, plumbers, doctors and real estate agents to live your practical (that is to say, your "real" or "concrete") life for you.

Of course there's no such thing as "living on nothing." The book would be more properly titled, Living for Something. For in a curious, unintended, Zen sort of way, that's what this book is about: living simply to establish familiarity with the details of your world, with ordinary local mysteries and miracles such as the wiring system in your house, the fabric of the garments you wear, the truth of the food you eat, and the fuel you burn. Behind the information, the advice, the hints, and the facts, this book is about coming to see things as they are, through your own eyes, instead of the hired eyes of some expert or other. It's about training yourself to trust yourself, and trusting yourself to train yourself, until you're able to claim your right as a human to be competent with your hands.

Finally no one is ever competent with his hands until he uses them, and flipping through how-to-do-it books can hardly be described as manual labor. So perhaps the best way to recommend a book like this is to call it literature and emphasize its inspirational value. I kind of like that idea. I've thought the same things about the Whole Earth Catalog in general, which brings up an interesting question: if the ultimate test of a good manual is its success as art, does that mean that the ultimate test of a good novel is its uses as a manual? We'll see. Meanwhile, here's a good 75 cent how-to-do-it book that could be a help to you on your next trip, real or imagined, into the New Wilderness.

[Reviewed by Gurney Norman. How To Live On Nothing suggested by Jim Martin]

For a dollar a year, you can subscribe to Our Public Lands, a quarterly magazine telling how to buy public lands, where to hunt, fish, or camp; also details of "Alaskan opportunities". Order from the Superintendent of Documents, Washington D. C., 20402.

When it comes to air travel you can avail yourself of bargains if you'll fly major airlines on week-ends...fly by night...forgo the two glasses of champagne in first-class quarters...buy a "run-of-the-airline" ticket on a regional western carrier if you live in the Eastern half of the country...travel to Europe in off-seasons...fly a triangle, with a stop at an intermediate glamour city thrown in for a few dollars extra...travel a heavy-volume, frequently scheduled commuter flight...forgo reservations and fly for half fare, on a standby basis, at least on one airline...or register as a first-time airline rider on another and make any round trip in the system for \$25...buy a package which wraps up hotel, entertainment, and air fare.

Homes in the path of proposed freeways have usually been bought by the city or county and are rented on an annual lease basis until time for demolition. Friends of ours are renting a \$30,000 house for \$85 a month—until the bulldozers claim it. They simply called the city switchboard and asked to speak to someone about renting city/county-owned homes.

Homes being rented are often not due for demolition for eight or ten years. They're bought up far in advance of need so there won't be last minute snags or holdouts.

Finally we called eight establishments under Typewriters, Rental. For comparable models of a Smith-Corona electric portable, two companies wanted \$25 per month; two wanted \$22.50; three were asking \$20; one \$15; one \$12.50. We finally rented a nearly new machine from a firm that charged \$9 monthly on a two-month basis.

[Champagne Living on a Beer Budget]



Champagne Living on a Beer Budget

Mike and Marilyn Ferguson
1968; 247 pp.

\$.75 postpaid

from:
G.P. Putnam's Sons
200 Madison Avenue
New York, New York 10016

or WHOLE EARTH CATALOG

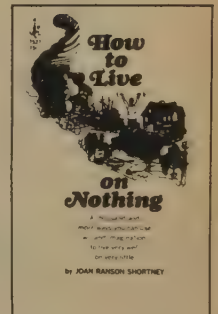
How to Live on Nothing

Joan Ranson Shortney
1961; 336 pp.

\$.75 postpaid

from:
Pocket Books
A Division of
Simon & Schuster, Inc.
630 Fifth Avenue
New York, New York 10020

or WHOLE EARTH CATALOG



Motor-driven equipment is an increasingly heavy expense as our homes become more mechanized. Most of us, however, pay for unnecessary appliance repairs through ignorance of how to avoid them. It's not necessary to try to rival the skills of a professional repairman. Simply keep him away by knowing a few rules of care and repair. Car engines aren't the only ones to suffer strain in cold weather. A hard start strains any motor. Your washing machine standing on the back porch in a temperature below 40 degrees F. must stand half a day inside in the warmth before you do the wash. If you keep your sewing machine in the cold spare room, apply the same rule. Even the motor-driven grinder out in the unheated garage needs warming before running. Vacuum-cleaner, freezer, and refrigerator motors all need warmth before starting.

BREAKFAST WHEAT MEAL. Wash 2½ cups (1 pound) wheat kernels. Spread on cookie sheet to dry and toast in moderate (350 degrees) oven for ½ hour. Put kernels through coffee grinder, adjusting to fine if you want meal, coarser if you want grits or groats. Makes 3 cups. Store in cool place. To make 4 small or 2 large servings and add concentrated milk values, mix ½ cup wheat meal with ½ cup dry milk solids. Mix to paste in ½ cup cold water. Add to 1½ cups boiling water with ½ teaspoon salt. Stir over low heat 3 minutes. When smooth and thick, add a teaspoon of honey or raisins or other dried fruit or omit sweetening and serve with butter or cream as your taste dictates.

A food and nutrition chapter would not be complete without mention of a food bargain that is unknown to most of us. It is MPF, the Multi-Purpose Food, developed at the California Institute of Technology and merchandised through the Meals for Millions Foundation, 1800 Olympic, Santa Monica, CA. This is a non-profit organization dedicated to relieving and preventing starvation and malnutrition throughout the world. Meals for Millions supplies MPF for 3 cents a meal to famine areas.

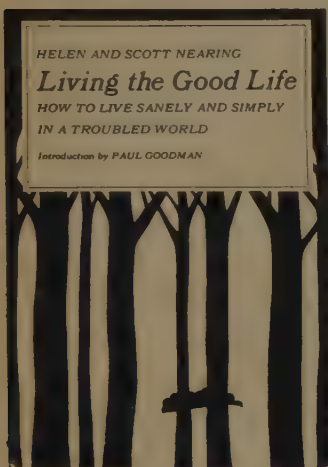
[How to Live on Nothing]

★ **Living the Good Life**

It all comes down, eventually, to whether your reasons for engaging in a rural communal situation are concerned with living the good life by having a high time or a High time. The difference between the Nearings' idea of the good life and the good life as lived on most rural communes is an enormous amount of self-discipline. Most people I know could never live comfortably in the atmosphere of austerity and hard work that existed at Forest Farm. Nonetheless, the clarity and convictions of the Nearings is inspiring. They are on the other side of the struggle to define an alternative life style, having lived on their Vermont farm for twenty years, providing themselves with all their own food, shelter and fuel in ways that caused no conflict with their strict pacifist, vegetarian, cooperative ideals.

There is more solid, thought-provoking material here than anything else I've seen about communes. No matter what you decide about the good life, the Nearings' case ought to be considered.

[Reviewed by Terri Gunesch]



Living the Good Life
Helen and Scott Nearing
1954, 1970; 214 pp.

\$4.95 postpaid

from:
Schocken Books
67 Park Avenue
New York, New York 10016

or WHOLE EARTH CATALOG

... the troubles which increasingly bedeviled western man were most acute at the centers of civilization and were multiplying as the years passed. Under these conditions we decided that we could not remain in the West and live a good life unless we were able to find an alternative to western civilization and its outmoded culture pattern.

Was there an alternative? We looked in three directions for an answer. First we considered and rejected the possibility of living abroad as refugees from what was for us a revolting and increasingly intolerable social situation. Even two decades ago, in the early 1930s, movement was far easier than it is today. In a very real sense, the world lay open before us. Where should we go in search of the good life? We were not seeking to escape. Quite the contrary, we wanted to find a way in which we could put more into life and get more out of it. We were not shirking obligations but looking for an opportunity to take on more worthwhile responsibilities. The chance to help, improve and rebuild was more than an opportunity. As citizens, we regarded it as an assignment. Therefore, we decided not to migrate.

As a second alternative to staying in the urban culture pattern of the West, we checked over the possibilities of life in a cooperative or an intentional community. In the late 1920s the chances of such a solution were few, far between and unpromising. We would have preferred the cooperative or communal alternative, but our experience, inquiries and investigations convinced us that there were none available or functioning into which we could happily and effectively fit.

Finally, we decided on the third alternative, a self-sufficient household economy, in the country, and in the United States, which we would try to make solvent, efficient and satisfying. Having made this decision, our next task was to define our purposes and adjust them to the possibilities of our situation.

We were seeking an affirmation, — a way of conducting ourselves, of looking at the world and taking part in its activities that would provide at least a minimum of those values which we considered essential to the good life. As we saw it, such values must include: simplicity, freedom from anxiety or tension, an opportunity to be useful and to live harmoniously. Simplicity, serenity, utility and harmony are not the only values in life, but they are among the important ideas, objectives and concepts which a seeker after the good life might reasonably expect to develop in a satisfactory natural and social environment. As things stand today, it is not this combination of values, but rather their opposite (that is, complexity, anxiety, waste, ugliness and uproar) which men associate with the urban centers of western civilization.



Scott Nearing tending a vegetable garden.

We keep no animals. Almost without exception, Vermont farmers have animals, often in considerable variety. We do, not eat animals, We thus escape the servitude and dependence which tie both farmer and animal together. The old proverb "No man is free who has a servant" could well read "No man is free who has an animal." ... We believe that all life is to be respected—non-human as well as human. Therefore, for sport we neither hunt nor fish, nor do we feed on animals. Furthermore, we prefer, in our respect for life, not to enslave or exploit our fellow creatures. Widespread and unwarranted exploitation of domestic animals includes keeping them for their milk or their eggs as well as harnessing them to labor for man. Domestic animals, whether cows, horses, goats, chickens, dogs or cats are slaves. Humans have the power of life or death over them. Men buy them, own them, sell them, work them, abuse and torture them and have no compunctions against killing and eating them. They compel animals to serve them in multitudinous ways. If the animals resist, rebel or grow old, they are sent to the butcher or else are shot out of hand.

We would attempt to carry on this self-subsistent economy by the following steps: (1) Raising as much of our own food as local soil and climatic conditions would permit. (2) Bartering our products for those which we could not or did not produce. (3) Using wood for fuel and cutting it ourselves. (4) Putting up our own buildings with stone and wood from the place, doing the work ourselves. (5) Making such implements as sleds, drays, stone-boats, gravel screens, ladders. (6) Holding down to the barest minimum the number of implements, tools, gadgets and machines which we might buy from the assembly lines of big business. (7) If we had to have such machines for a few hours or days in a year (plough, tractor, rototiller, bull-dozer, chainsaw), we would rent or trade them from local people instead of buying and owning them.



Building with stone.

We chose stone for several reasons. Stone buildings seem a natural out-cropping of the earth. They blend into the landscape and are a part of it. We like the varied color and character of the stones, which are lying around unused on most New England farms. Stone houses are poised, dignified and solid—sturdy in appearance and in fact, standing as they do for generations. They are cheaper to maintain, needing no paint, little or no upkeep or repair. They will not burn. They are cooler in summer and warmer in winter. If, combined with all these advantages, we could build them economically, we were convinced that stone was the right material for our needs.

... we soon discovered that after the building was finished, the different rate of expansion for concrete and wood pulled the two apart at times, leaving a small crack between the frame and the concrete wall. We remedied this in later construction by cutting a square groove all around the outside of the frame and inserting a small strip of wood which projected ¼ inch or a little more beyond the center of the frame into the concrete. Later we improved this method still more and cut a groove half an inch deep with a bench-saw and set a piece of galvanized metal ¾ inch wide into the groove. This took less time than inserting the wood strip and served the same purpose of bridging the crack between frame and concrete.

A Manual of Simple Burial

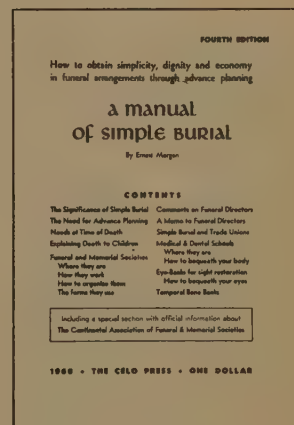
Not everybody has an opportunity to depart this world gracefully, and those that do usually blow it. The people left behind fumble just as badly, for largely the same reasons: ignorance, fear, a lack of foresight and preparation. None but the dead can know for sure the full consequences of the failure. But even if there are no consequences for the dead, there are enough of them for the survivors in the forms of trauma and ruptured bank accounts, to make this Manual of Simple Burial seem something like a life-saver.

For this little manual of death is firmly on the side of life. As part of the literature of funerals, it's like a living rosebud in a bouquet of plastic flowers. In 64 pages it quietly tells you how to avoid the ghastly system of converting human left-overs into products packaged as "funerals." In simple language backed by intelligent sympathy, it suggests ways to surround the act of passage with appropriate rites of passage that offer real meaning to people in need of meaning.

According to the manual, the main alternative to expensive, hastily-improvised funerals is membership in a memorial society. A memorial society is "a voluntary group of people who have joined together to obtain dignity, simplicity and economy in funeral arrangements through advance planning." The manual provides a list of several societies by name and address. It also has information on cremation, autopsies, eye-banks, bequeathal of bodies, and the business and legal matters that usually attend a death, as well as chapters with titles like "Interpreting Death To A Child," and "What to Do When Death Occurs."

Men choose their horrors. We choose war. We choose pollution. And, by default, we choose to make the rituals surrounding death grotesque. But what is chosen can be unchosen, once an alternative is clear. The Manual of Simple Burial describes a clear alternative to one of our chosen horrors.

[Reviewed by Gurney Norman]



A Manual of Simple Burial
Ernest Morgan
1968; 64 pp.

\$1.00 postpaid

from:
The Celso Press
Burnsville, North Carolina 28714

or WHOLE EARTH CATALOG

★ **Funeral and Memorial Societies**

The best alternative to expensive, hastily-improvised funerals is membership in a memorial society. The Continental Association of Funeral and Memorial Societies, Inc. publishes a list of member groups in the United States and Canada.

List of Member Societies

free

from:
The Continental Association of Funeral and Memorial Societies
59 East Van Buren Street
Chicago, Illinois 60605

The Creation of an Alternative Society / Joseph Berke Cultural Revolution: U.S.A. 1968 / A.C. Davis Revolution by Life Style / John Greer The Coming Catastrophic Age of Ice / Tah Kuperberg	12 36 56 74	Money, Sex, Theatre / Julian Beck Kamama / Kamama / Ward / Joseph Berke Kamama / Ward / Joseph Berke Hoganes / Simon Vinkovats Consciousness and Practical Action / Allen Ginsberg	80 102 136 144 170	You Had Better Come On Home / Stokely Carmichael Strawberry 1968 / Basic Document Applications of Estuary / Jeff Burton The Top University of New York / Joseph Berke Foucault on Auto University / Robert Eny	182 198 205 212 225
Covers from Free University Catalogue / Basic Document New Experimental College / Peter Dinklage The Creation of the World in My Image / Roger Rosenblatt	240 250 253	Machos and Morals / Maurice Schekman Perfume / Christopher Koch The Non-Electric Circus / Paul Lamson New Cinema / Stephen Donahue & Susan Harp The Queens / David Holmström	268 314 342 368 378		
The Post Competition, Competitive Game of a Free City / Basic Document Fuck the System / Basic Document Free London / Basic Document	380 383 388	Towards a New Man / Russell Connor	390		

★ Counter Culture

Here's the other side of the purist, back-to-the-land-and-live-simply movement—resistance and creativity in the midst of the iniquitous old culture. Documents the scene in Europe and the U.S. with articles by Tuli Kuperberg, Julian Beck, Stokely Carmichael, Christopher Koch, Allen Ginsberg. How to do a free university, an underground newspaper, a commune, listener-supported radio, live free in the city. The mind-boggling graphics of post-psychedelia fill in the spaces. Get it now, while it's hot, or perhaps you'd like to wait till the younger generation decides it's time for a counter counter culture.

—HH



Counter Culture—The Creation of an Alternative Society

Joseph Berke, editor
1969; 415 pp.

\$10.90 postpaid

from:
Peter Owen Ltd.
12 Kendrick Mevs
Knedrick Place
London SW7 ENGLAND

or Blackwell's
(see page 81)

It takes a great deal of effort, it takes a great deal of conscious awareness and also the ability, the need, the desire and the help of chance and love to put yourself into a situation in which you find yourself liberated enough so that you can work and create co-operatively with another person. It is necessary to surrender your identity to someone else, and in the group one begins to find very strange things, you begin to find a form of communication that is—let me say, I speak personally—a form of communication that you had not previously experienced. And you also reach that point in discussion and work and improvisation when you find that a poetry more vaulting than your own begins to emerge from other parts and other sections and carries you along, and the joy of becoming part of that, the feeling that it is part of you and you are part of it is almost excessive. And I speak now almost in a missionary fashion, because I have had the pleasure of this particular kind of anguish, and I simply say to you that if there is opportunity for you in your own time and your own work to begin to go further in the procreative joys of the co-operative, do so.

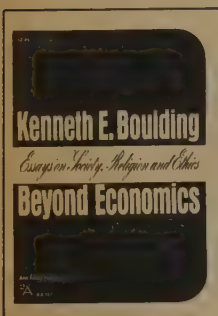
(Julian Beck)

To publish your own paper you will need: white matboard, paper (ruled in light blue if you prefer), rubber cement, knives, blue pencils, rulers, ruling pens, liner tape, clear acetate, typewriter(s), hard type, unmentioned paraphernalia, money and amphetamine, not necessarily in that order.

★ Beyond Economics

Since so many of you dwell on the fringes of society, I thought you might be interested in the fringes of economics where Kenneth Boulding thoughtfully paces. Those places where economics meets religion and ethics, meets general systems, social science, learning theory, evolution, and (watch it!) politics.

—SB



Beyond Economics
Kenneth E. Boulding
1968, 1970; 308 pp.

\$2.95 postpaid

from:
University of Michigan Press
615 East University
Ann Arbor, Michigan 48104

or WHOLE EARTH CATALOG

Similarly atoms come and go in a molecule, but the molecule remains, molecules come and go in a cell, but the cell remains, cells come and go in a body, but the body remains; persons come and go in an organization, but the organization remains. What "remains" in the midst of all this flux of components is the "role," the "place," and the relations of roles one to another. A role is a hole, an organization is a related and orderly set of holes, and one sometimes catches a fleeting and slightly night-marish vision of the scientific universe as a set of holes bounded and defined by other holes! The significance of almost anything, like that of a word, is derived largely from its context; everything, however, is the context for other things; context creates itself, *ad infinitum*.

Energy and matter can only be exchanged: knowledge can be produced.

The Communist society is a "one-firm" state—that is, a society organized hierarchically into a single economic organization. It is simply General Motors (or perhaps more realistically, the Pentagon, which is in terms of national income the world's third largest Communist society) expanded to include the whole economy, with the possible exception of a few Nepmen and some surreptitious private trade. A capitalist society by contrast is "ecological" where the Communist society is "organic." A Communist society is a true Leviathan, a vast social whale; a capitalist society is more like a pond with a great multitude of interacting organisms bound together in a system of mutual exchange, or markets.

If a genuine learning process—the continual elimination of error in our image of the world, as well as the enlargement of this image—is to take place, there must be safeguards against rejecting inferences or rejecting the image of the past.

Have we, or have they, that much care for ourselves and for each other that we're willing to accept each other then, to work without fear, without paranoia, and enjoy ourselves finally? Begin to play again, get out of the system, not answer the machine back, not escalate the old—simply wipe it out?

... The surface of the planet has to be replanted, back to some living delight, instead of dead vibrations. It doesn't need leaders, doesn't need centralized authority, just needs realization of ideas, or the possibilities of ideas, like free food, free stores, free co-operative activity, underground papers. These community activities spread naturally on their own and can be practised democratically on the grass roots, with the active political consciousness of the massive raised (raised?)—raised (raised?)—'leavened'—Raised.

(Allen Ginsberg)



Rural Industry

This guide catalogs several hundred tools, all manufactured or distributed by CeCoCo (Central Commercial Co.), and all applicable to what they term "cottage industry". In quaint English translation CeCoCo editors spell out the small scale cottage industry concept:

In almost all developing countries in the world, there are determined efforts to achieve material economic progress and emphasis is being carried out to induce a shift in the structural pattern of the economy from one basically agricultural to one that is agro-industrial in character to assure an increasing level of national production within the framework of economic and social stability which does not require much of foreign exchange to insure its growth. That is very important to select such industries which do not need foreign exchange in obtaining raw materials.

The high cost of living in the urban areas, nevertheless reduces the workers' real income. Money incomes in the rural areas is lower than those in cities but the cost of living is equally lower compared with urban living. The full development of cottage industry in the rural areas, can provide additional forms of income on the part of rural families, which could reduce the influx of population to cities in quest for employment. This ultimately would minimize social problem in urban centers.

The tools listed in this catalog are absolutely fascinating. One spends hours studying specifications, diagrams and photos of CeCoCo "making" machines. (In the Wire Products section, for instance, one finds Paper Pin Making Machine, Staple Pin Making Machine, Hair Pin Making Machine, Safety Pin Making Machine, Snap Button Making Machine, Nail Making Machine, Barbed Wire Making Machine, Chain Making Machine, Zip-Fastener Making Machine, Etc.)

CeCoCo was established in 1916, but refers to an association with a manufacturer of animal-drawn farming implements since 1863. They maintain an exhibition and demonstration farm center at Ibaraki. On the back cover of their guide book one sees photos of dignitaries from all countries of the world visiting CeCoCo center.

[Suggested and Reviewed by Ken Kern]

"CECOCO" MOTORLESS HYDRO-HI-LIFT PUMP

This particular pump will raise water by the power caused by means of declivity of water-flow up to the height 30 times of water head and operates automatically without any motive power such as gasoline, other fuel oils and electricity and no attendance for operation is necessary. It is extensively used in Japan for water supply at home, and field for irrigation, spraying and water reservoir on the top of mountain and hill.

PRINCIPLE: In order to raise the water automatically, by multiplied power of (1) the water hammer pressure leading pipe installed with a slight inclination and (2) the specific gravity with effectivity of the air in the delivery pipe taken in by the negative pressure (Vacuum) caused by the reactional flow of the water hammer pressure.

HOW TO INSTALL: Although it is motorless, it has to have a flow of water as the source of power to operate the pump and the "head" is absolutely necessary. During operation, proportionate amount of water to be delivered, therefore it must have drainage. The gist of such parts are:

- (1) Head 0.5—4 meter for small type and 1—8 meter for large type is considered to be the best for practical use.
- (2) Leading Water Pipe: The length of leading pipe is, for practical use, approximately 8 times of the Water Head and the pipe must be kept straight. It needs to be hard, therefore it is advisable to use steel pipe.
- (3) Delivery Pipe: The size of the delivery pipe is half in diameter of the leading pipe.
- (4) Drain Well: In order to cause counter current at the moment Drain Valve opens, it is necessary to install Drain Well. Also, in order to take the air, make the water level of drain well equal to red line marked on discharging mouth.
- (5) Discharging Water: It may be drained out into well or culvert or any other suitable equipment.



Guide Book for Rural Cottage and Small and Medium Scale Industries
158 pp.

\$10.00 airmail

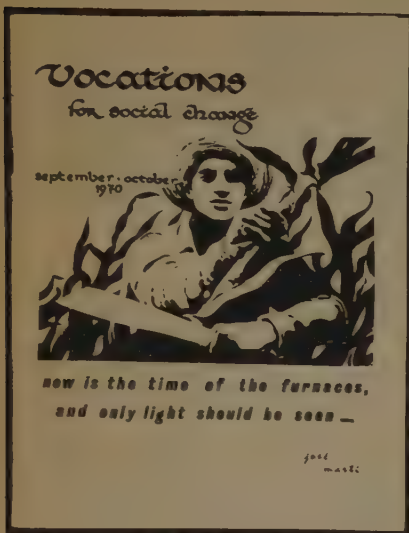
\$7.00 seairmail

from:
CeCoCo -
Ibaraki City
Osaka Pref.
JAPAN

Vocations for Social Change

All about alternatives, by people who are living them. Mainly employment, but that's a whole lifestyle, becoming your vocation, the most integrated part of the search. How to work at changing the world.

-HH



Vocations for Social Change

free /6 months (bimonthly)
if you send a donation of \$5.00

from:
Vocations for Social Change
Canyon, California 94516



On the side of a wooded hill in Canyon, California, lives a group of people assembled from around the country. We live in two houses, one is a home, one is part home, part office - we are called Vocations for Social Change. As individuals we are trying to understand the forces that make us manipulate, make us consume, that keep us apart. We are searching for alternatives and solutions to sexual chauvinism, authoritarianism, and oppression of all kinds. As a group of committed people we collect and disseminate information on how basic institutional change can and has come about and how people have begun to live revolutionary lives.

BOYCOTT
SAFEWAY
...to be sure



STEAM ENGINE CO-OP: A PROPOSAL

I'd like to see some machine minded radical people get together on a co-op which would eventually make steam engines out of old parts. "Mason" had the same idea (Berkeley Tribe). I'm not a machinist, but I think it could be done, since external combustion engines are so much simpler in design than internal combustion types. Picture if you will a propane filled steamer, and you have an ideal combination of power, cleanliness and economy: the proposed co-op/commune or whatever could design these new plants to go where the old ones are. It shouldn't be hard - no clutch, trans, carb or cooling system would be needed. Except maybe a condenser so you wouldn't have to refill with water so often.

It seems a shame to let all that fine junk rot in junkyards when something beautiful could possibly be done with it.

CONTACT: Jerry Madison
Box 4237
Albuquerque, NM 87106

RESEARCH ASSISTANT

An opportunity to assist Paul Bernstein, in generating critiques' of the Dept. of Social Services programs (with preference to those that can be implemented) and to work with Paul on ideas dealing with movement ideas and experiences (from world peace to ecology). Needs an able writer/editor/idea generator who can take dictation. Needed ten hours a week at \$2-3 an hour plus room and board in a commune. ---CONTACT Paul R. Bernstein, Office of Research and Evaluation, Dept of Social Services, 271 Church Street, New York, N.Y. 10013



PEOPLE, INC.

People, Inc. is an organization to decrease talking and increase helping, particularly helping in kinds of ways that make the helper no longer needed. We have a continuing need for people who pretty well know who they are, know they want to change some things, and know they'd like to pay their dues for the breaks they got by accident of birth or any other. That is, we are not a place to go to "find yourself" and we are not a hippy drug freak haven. We are American Sons of Liberty continuing the unfinished American Revolution. Harlem Education Project, Mothers Co-ops, Books SOUTH, Lower East Side Action Project, Green Valley School, etc. are independent projects given essential help by People, Inc. We need people who can work, carpenter, plumb, drive, sweep, carry, play with nasty, ungrateful, disloyal kids who sometimes turn out nice people (most of the time). FLA, NY, Alaska and elsewhere. We pay essential goods and services (clothes and things), \$7.50 a week, one day off a week with transportation, and \$200 for each year of service. ---CONTACT George von Hilsheimer, PO Box 606, Orange City, FLA 32763.

Alternatives Directories

Movement yellow pages. Pretty handy.

Directory of Free Schools
1970; 30 pp.

Directory of Personal Growth
1970; 30 pp.

Directory of Social Change
1970; 30 pp.

\$1.00 each

from:
Alternatives!
1526 Gravenstein Hwy, No.
Sebastopol, CA 97452

* Liberty House

One of the most together endeavors going; poor people from Mississippi, Louisiana, Florida, Georgia, Alabama, Africa, Mexico Guatemala and Canada making leather goods, bags, clothes, dolls, toys, basketwork, jewelry. It all seems to have a special hand-made quality.

-HH

Catalog

free

from:
Liberty House
P.O. Box 3468
Jackson, Mississippi 39207

* Community Market

A growing clearing-house for communities practicing cottage economy. Serves as a mail-order catalog for the 36 groups listed. There are only a few noteworthy products, like hammocks, snowboots and papoose carriers, but there's an interesting variety of communities represented, from the Appalachian South Folklife Center to the Christian Home-steading Community.

-HH

Directory of Community Market

free

from:
Community Market
P.O. Box 268
Deerfield, Massachusetts 01342

Understanding Foundations

It tells you some about how to raise money and a lot about where to look.

—SB

[Suggested by Larry McCombs]

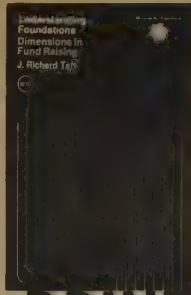
Understanding Foundations

J. Richard Taft
1967; 205 pp.

\$2.95 postpaid

from:
McGraw-Hill Book Co.
Princeton Road
Hightstown, New Jersey 08520
Manchester Road
Manchester, Missouri 63062
8171 Redwood Highway
Novato, Ca. 94947

or WHOLE EARTH CATALOG



BACK IN PRINT

Perhaps the greatest, most time-consuming, and least productive activity among fund raisers today is random foundation door-knocking. Amateurs, especially, are guilty of this. But professionals, who should know better, are offenders too.

Everyone who has ever applied or is about to apply to a foundation for a grant wonders whether there is some magic formula for a successful application. If there is one, it is simplicity.

The desks of foundation officials around the country are piled high with applications characterized by verbosity, pomposity, and vagueness. Make your application short, simple, and clear, and it will stand out.

Most foundations have no standard form which applicants fill out. A good approach is a simple letter of one or two pages (even the most complex subjects can be boiled down to this length) or a short proposal accompanied by a covering letter of introduction. Sometimes it is worth calling a foundation first to discuss your project before going to the trouble of preparing a proposal.

Don't hem and haw on money. State figures and try to stick with them. If you need staff, you will need to pay them. How much? If you need office space and equipment, check out all costs before going to the foundation. If materials, transportation, or other items are involved, include them. If it is a one-time grant, say so. If not, make it a two-year, or three-year, or more, request. Foundation officials are money handlers and, as such, are most concerned with sound fiscal management. They cite poor financial administration as a key factor in grants rejection.

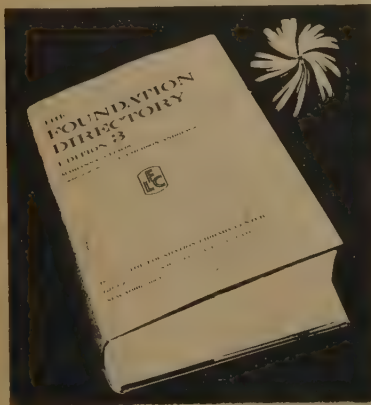
Every applicant wonders whether or not he should include endorsements in his proposal. By all means, if there are reputable people in the field who are familiar with your work, the organization, and its programs, endorsements are valuable. Foundations have a high regard for expertise. The backing of respected people puts a useful stamp of approval on any project.

After making your proposal or writing your letter, don't expect quick response. Most foundations are extremely busy and take a good deal of time before responding to letters or applications. Certainly do not expect an early grant. Foundations generally have board meetings several times a year, at which time those proposals which have passed the scrutiny of the executive director, the program administrator, or the person concerned with applications, are considered. It is infrequent that an applicant will receive funds in less than six months' time after his application.

The Foundation Directory

The reference book of foundations. Gives addresses, finances, officers, purposes and activities. Foundations are listed by state, which is intelligent, since grants are usually given locally.

—SB



The Foundation Directory

Marianna O. Lewis, Ed.
1967; 1198 pp.

\$12.00 postpaid

from:
Russell Sage Foundation
230 Park Avenue
New York, New York 10017



Federal Domestic Assistance

The Catalog is a guide to Federal Programs. It describes the purpose, eligibility requirements for an incredible variety of aids, along with the 'how-to-apply.'

I recommend it as a wishbook and as a tool. For the surprise is that many of the aids exactly fit the needs of the new communities (loans for home industries, for example, pp 27-28) and are specifically open to non-profit groups or low-income persons. Urban groups will find similar luck, I think, in linking their goals to an existing program.

[Suggested and Reviewed by Richard R. Reed]

The cost is now \$6.00 (prepaid) and includes a subscription service. The new CoFDA comes in a big plastic binder (loose leaf) and has a lot of information that was not included in previous catalogs (e.g. current appropriations, better retrieval and the subscription is supposed to provide updating of the information—justification for the binder, I suppose).

[Re-reviewed by Keith R. Pryor]

Catalog of Federal Domestic Assistance

\$6.00 /yr

from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Many foundations have accepted the doctrine that their limited funds should be used chiefly as the venture capital of philanthropy, to be spent in enterprises requiring risk and foresight, not likely to be supported by government or private individuals. In their fields of special interest they prefer to aid research, designed to push forward the frontiers of knowledge, or pilot demonstrations, resulting in improved procedures apt to be widely copied.

Support for current programs, if it comes at all from foundations, must usually be sought from the smaller organizations, and especially those located in the area of the agency, well acquainted with its personnel and its needs. Most small foundations, and some larger ones, restrict their grants to the local community, or state. Immense variety exists; the interests and limitations of each foundation need to be examined before it is approached.

Where there is evidence that the applicant has not bothered to find out the field of interest of the foundation, or has made a general mailing, the cost of even a formal declination is scarcely warranted; wastebaskets are available in any required size.

Sample listing:

San Francisco Foundation, The
351 California Street
San Francisco, California 94104

Community foundation established in 1948 in California by resolution and declaration of trust.

Purpose and Activities: Grants principally for welfare and welfare planning, hospitals, education, health and mental health, culture and the arts, and conservation in the San Francisco area unless otherwise specified by donors. Report published annually.

Financial Data (year ended 30 June 1965): Active capital, \$6,736,824 (L); gifts received, \$686,287; expenditures, \$681,325, including \$639,793 in grants.

Officers: John R. May, Executive Director and Secretary.

Distribution Committee: S. Clark Beise, Chairman; Daniel E. Koshland, William H. Orrick, Jr., Vice-Chairmen; William R. Hewlett, Treasurer; Christian de Guigne, Mrs. Alfred McLaughlin, Emmett G. Solomon.

Trustees: Bank of America, The Bank of California, Commonwealth National Bank of San Francisco, Crocker-Citizens National Bank, First Western Bank and Trust Company, Golden Gate National Bank, The Hibernia Bank, Pacific National Bank of San Francisco, United California Bank, Wells Fargo Bank.

Government Publications

This paperback is titled *Over 2000 Free Publications: which is sort of true, but mainly gross boosting. Skip that. The book is a good, recent, cheap compendium of information easily available from the Government—inexpensive sometimes practical sometimes trivial sometimes precisely what you need for an important task.*

—SB

[Suggested by Michael Rosenthal]

Over 2000 Free Publications

Frederic O'Hara
1968; 352 pp.

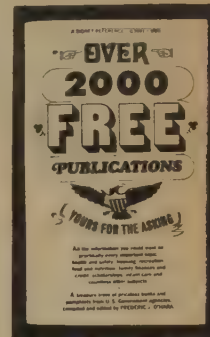
\$.95 postpaid

from:
WHOLE EARTH CATALOG

or

\$1.15 postpaid

from:
The New American Library
O.P. Box 2310
Grand Central Station
New York, New York 10017



Making Household Fabrics Flame Resistant (rev. ed. 1963). L454

Tells how household fabrics may be made flame-resistant by treating them in the home with various flame-retardant solutions. Describes how to prepare and apply these solutions.

The Use of Sawdust for Mulches and Soil Improvement (1951). (Circular 891). 15 cents. For sale only.

Hepatitis (rev. ed. 1966). PHS Publication no. 446.

Hepatitis (1967). Unnumbered PHS fact sheet.

Wood-Frame House Construction (1955). AH73. 65 cents. For sale only. Textbook for house builder, from foundation to roof.

Solar-Type Farm Cottage, Plan No 7148 (1965). M1001.

A-frame Cabins, Farm Building Plan Nos. 5964 5965 (1964) M981.

Farmstead Sewage and Refuse Disposal (1963). AB274. All about septic-tank systems. Discussion of other refuse-disposal methods.

Recipes for Quantity Service (1958). HESS5. \$2.50. For sale only. O.P. Directions for quantities for twenty-five, fifty, or one hundred portions.

Government Printing Office

O'Hara doesn't begin to list all of what's available from the GPO. If you're really interested in a particular area, you might as well get the FREE list of publications in that area. Or you can get the FREE biweekly list of "Selected U.S. Government Publications." Or, for totality, for \$6, the "Monthly Catalog of U.S. Government Publications."

—SB

from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

On Free Money

From my limited experience, the realm of foundations and grants is one of the most cynical in the American economy. Generally when you approach a foundation they are friendly and half-receptive. They consider your project promising if a little naive, and they'd like to write you a proposal on it. You spend a month learning how to write proposals and a month writing this one. They keep it six months. Your idea has died of dry rot. Then they request that you re-write the proposal to accommodate (whatever) and it might go through next time the board meets. Do this three times, and you have died of dry rot.

Most actual grants I know of were initiated by the donors, not the donees. The most effective way to get grant money is to be Highly Visible.

I don't know why foundations and government money is so often toxic to projects. Maybe because the process becomes so easily dishonest. Do me no favors, and I'll tell you no lies. Or is it the belief that there's such a thing as a free lunch that is the root lie?

—SB

★ Wood Heat Quarterly

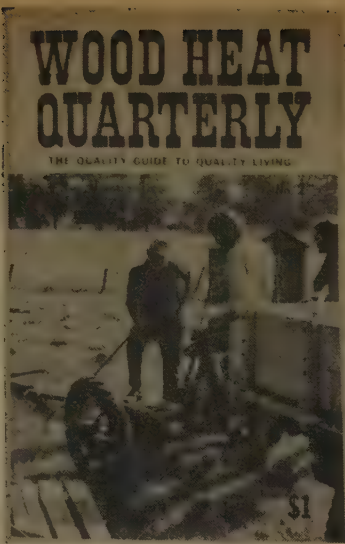
The best aspect of the current resettling of the countryside is that so many of the settlers are intensely spiritual and recognize the depth of the archetypal relationship of man to earth. (That's many, I said, not all.) Such religious feeling for the agrarian life hasn't been manifested since the last century. By now, every state of the union (and many other countries) has its proportion of the new homesteaders. The Number is growing.

Wood Heat Quarterly is Vermont living, simple living, spiritual living. Practical, plain and poetic, all at once. Its articles on fuel supply, mules, soil care, herbal medicines and water witching are mixed in with the philosophy of Kirpal Singh, Wei Po-yang and the Essene Gospel. They talk about the Shakers and the Population Explosion. It's early New England transcendentalism, reborn, redefined and revitalized.

—HH

Wood Heat Quarterly
\$3.00 /yr. (4 issues)

from:
Lowther Press
R.D. 1
Wolcott, Vermont 05680



★ The Countryside

It comes to you folded up to about Reader's Digest size. You unfold it and it turns into two poster-size sheets covered on both sides with print. Lots of letters inside from people rapping about their real or fantasied homestead life. Tips about country problems, like what to do about cow bloat (get the animal to chew on something like your finger for a calf or kid), chick sexing, and goat chow. Also an ingenious looking fruit and vegetable dehydrator.

—HH

The Countryside
"is published in the country, by homesteaders, whenever the other chores are done."

\$3.00 /yr. 6 issues

from:
The Countryside Print Shop
P.O. Box 107
Marshall, Wisconsin 53559



from "The Shakers"

After the location of the different communities had been decided upon and the work of clearing the land in some societies done (for some had the advantage of starting with the farm lands of devoted members) and they had raised their houses, they developed and safeguarded water supplies and rights, and decided what to raise as needed for profitable crops. The first crops raised beside hay were flax, corn, wheat, rye, barley and oats, which, of course, necessitated a grist mill. Early in their experience they set out large orchards, sometimes of over a hundred apple trees, and orchards of peaches and of pears. Provision was also made for grapes. Large airy cellars gave storage space and a house with furnace and kiln provided a means for drying apples for sauce and pies. A cider mill was built and quite a business was done in selling boiled cider—dried applesauce. Believers kept up their efforts through the years to improve their animals and plants. As late as the early twentieth century a brother at Watervliet, Hamilton De Graw, was engaged in the hybridizing of corn for a large seed company...

Shakers were taught that agriculture was a part of their religion. A Gardener's Manual was published in 1843. In this one writer expressed the Shakers' belief that "if you would have a lovely garden, you should live a lovely life"...

As Each community was a complete self-sufficient unit within itself, ingenuity was also a necessity. The list of inventions is endless. Among them are the screw-propeller, disk harrow, threshing machine, the overshot water wheel and the turbine water wheel, the first flat broom, the common clothes pin, a type of box stove replacing fireplaces, the metal pen, the first one horse wagon and numerous small machines and labor saving devices.

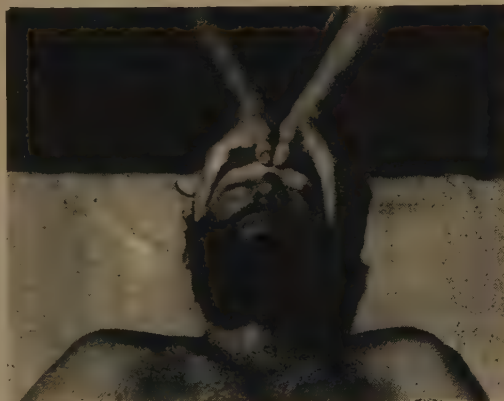
The Green Revolution

Seems to be the grandmother of the alternative culture newspapers and magazines. She's spry (been publishing since the '30's) and always has lively articles (written by Mildred Loomis and a young and young at heart staff). Wears simple, functional layout, newspaper format. Nothing called "news," though, just in-depth stories that are relevant. Latest issues have dealt with massage, pig slaughtering, rescuing trees, planting trees, defoliation, dandelions and water wheels. They're always promoting the green revolution, the return to the land.

—HH

The Green Revolution
\$4.00 /yr. (monthly)

from:
The Green Revolution
Route One, Box 129
Freeland, Maryland 21053



OFFING THE PIG

by Larry Lack

Last Saturday we lovingly liberated Ron's soul from his well-developed body. The previous day we'd transported his little sister, Laura, to a neighbor's farm so she wouldn't have to witness her brother's demise. She will remain at her new home for some time, making babies.

Ron and Laura, named for the couple who point the way in Mildred Loomis' "Go Ahead and Live," were Heathcote's pampered porkers, held in highest esteem by the entire community.

I won't attempt to describe the technics of the butchering process there: they are best observed on the spot. A few notes on the killing may be useful: several people told us that the most humane killing technique was a hammer blow to the skull prior to opening the throat and bleeding. I could not do it, and chose instead the more common method—a .22 rifle pointed just above a line between the eyes and fired point blank, I fired the shot myself, and I think it entered the brain, causing a very quick if not entirely painless death.

I chose to kill Ron myself because I strongly felt that all meateaters should come to terms with the killing their diet requires, and should assume moral responsibility for that killing by doing it themselves whenever practical.

It has always seemed a shame to me to allow any produce of the garden and orchard to go to waste. Those luscious vegetables that come in to full ripeness—just when your schedule won't permit a lengthy session with the canner—or fruit that would be ideal to dry but not enough time to can. Well, try one of the oldest methods of food preservation: just dehydrate it.

If you live in an area where the summers are hot and dry you can sun-dry. For those areas where humidity is high, and for late season drying of mushrooms (October, in my area) you need a simple dehydrator. These are the plans for one I built for under \$20. The most expensive part was the 5/8" plywood. The trays and slide runners are scrap wood, and I had a pair of old wagon wheels. I picked up a used fan at Goodwill and three 69 cent light sockets and the screen and wire for the fan and that did the job.

You can use your own dimensions for a smaller or larger unit, but make sure you have adequate venting, and a planum area about 1/6 the total area of the dehydrator.

Heat can be regulated by increasing the wattage of the bulbs. I dry mushrooms with three 50 watt bulbs.

Fruits can be dried by just dicing and placing on the trays. Apples should be sliced thin, pared, and to preserve the light color, dip in a salt water bath of about 5 tablespoons of salt per gallon of water for about 10 minutes. I have not tried ascorbic acid (Vitamin C) but a bath in a dilute solution might help. Give it a try.

Vegetables must be steamed to stop enzyme action. I am still experimenting, but sweet corn, put in boiling water on the cob for about three minutes, then cut off onto the trays, works fine.

The approximate steaming time for some vegetables is as follows:

- Green beans—20 min.—till cooked but firm
- Whole carrots—20 min.—cut in thin slices after steaming
- Beets, whole—60 min.—pare and cut into cubes
- Mushrooms—none—as is or slice if too large
- Cabbage (shred)—10 min.—till cooked but crisp and firm
- Squash & pumpkin—8-15 min.—pared, cut in 1" strips
- Peppers—10 min.—cut in 1" strips

I'm always amused by visitor's comments about our goats "eating anything" including tin cans. They're the daintiest, even most finicky, eaters on the place. In fact, this got to be a problem recently when we lost our source of Purina Goat Chow. Our feed dealer tells us it isn't being made anymore. In any event, if you're facing the same problem, here's a recipe they seem to enjoy just as much. In fact, from all appearances, it might be the same, but cheaper.

We use 10 pounds of Purina Show Chow (a pelletized feed that contains 30% protein and should be fed sparingly), 35 pounds of crimped oats, 35 pounds of crimped corn, 15 pounds of molasses, and 2 pounds of salt.

That's an awful lot of molasses, and I understand some millers don't like to mix it, but the goats sure go for it.

I also made a mistake the first time by having the grain ground too fine. Goats just won't eat dusty cow feed, but the crimped grain is relished.



Communications

* The Japanese Abacus

Hey all you businessmen out there here's your chance to save some more money while you count your money. A little honey of an abacus and a clear concise one night (maybe two it took me three) lesson in how to add, subtract, multiply and divide on this simple, cheap, lightning fast device.

[Reviewed by D. Smith]

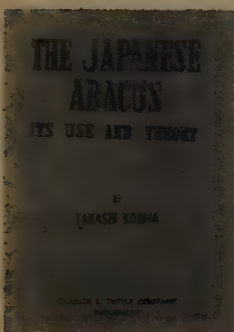
The abacus, or soroban as it is called in Japan, is one of the first objects that strongly attract the attention of the foreigner in Japan. When he buys a few trifling articles at some store, he soon notices that the tradesman does not perplex himself with mental arithmetic, but instead seizes his soroban, prepares it by a tilt and a rattling sweep of his hand, and after a deft manipulation of rapid clicks, reads off the price. It is true that the Japanese tradesman often uses his board and beads even when the problem is simple enough to be done in one's head, but this is only because the use of the abacus has become a habit with him. If he tried, he could no doubt easily add 84 and 48 in his head. But such is the force of habit that he does not try to recognize the simplicity of any problem; instead, following the line of least resistance, he adjusts his soroban for manipulation, and begins clicking the beads, thus escaping any need of mental effort.

The Japanese Abacus,
It's Use and Theory
1965; 102pp.

\$1.50 (book alone) postpaid

\$4.25 (book plus abacus) postpaid

from:
Charles E. Tuttle Company
28 South Main
Rutland, Vermont 05701



communication,
wow,
communication,
a few thoughts,
that its not how you do it but what you do,
although,
what you say has a lot to do with how you say it.
that its harder to listen than to talk,
although, but,
you don't get quite as much said.
that arrows and words are separate but equal,
and
that action, times say, speaks louder than words.

-jd

AAA Adding Machine Company

I wish we'd known about this outfit when we started business. They carry used and reconditioned calculators, adding machines and cash registers at good prices.

-SB

Catalog

FREE

from:
AAA Adding Machine Company
26-09 Jackson Avenue
Long Island City, New York 11101



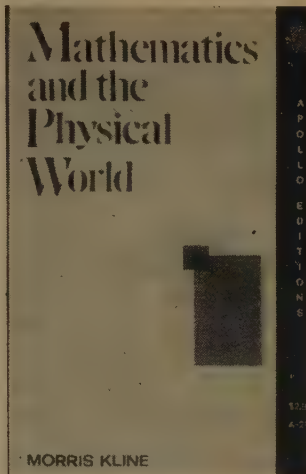
MARCHANT \$99.00

Automatic carriage return • Carriage tabulation; preset decimal as well as multiplication • No repeat or non-repeat keys • Automatic elimination of 1 in division • Complete carriage carry-over • Exclusive keyboard check dial • Complete in line 3 figure proof.

* Mathematics and the Physical World

i'm no mathematician.
in the woods,
between dodging timber,
and dripping sweat,
ken hoffman tried to explain
how, mathematically,
you can put a handle on a basketball,
make a donut out of the earth.
this book doesn't go into either of those problems,
but it does try to tie things together,
using numbers as the language.

-jd



Mathematics and the Physical World
Morris Kline
1959; 482pp.

\$2.95 postpaid

from:
Thomas Y. Crowell Company
788 Bloomfield Avenue
Clifton, New Jersey 07012
or WHOLE EARTH CATALOG

Mathematics is commonly regarded as highly abstract and remote from the real world. It is true that as mathematics developed it built more abstract and more complex ideas. An equation involving unknowns is more abstract and perhaps more complicated notion than that of number, and the reasoning about equations is less immediately subject to the physical interpretation than the manipulations of arithmetic, but every abstraction that even the greatest mathematician has introduced is ultimately derived from objects or phenomena. The mind does play its part in the creation of mathematical concepts and in determining the direction that the reasoning shall pursue, but the mind does not function independently of the world outside. Indeed, the mathematician who advances concepts that have no physically real or intuitive origins is almost surely talking nonsense. The intimate connection between mathematics and events in the physical world is reassuring, for it means that not only can we hope to understand the mathematics proper but also expect physically meaningful conclusions. From dust thou art to dust returneth may perhaps not be spoken of the soul but it is well spoken of earthborn mathematics.

* Regular Polytopes

shel kaphan,
mathematician,
boy wizard,
bookkeeper,
bicyclist,
alpinist,
shel kaphan recommended this,
as an old standard for mathematical model builders.

-jd

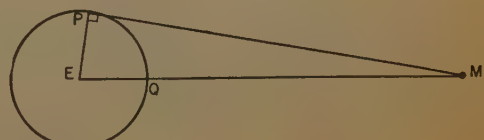
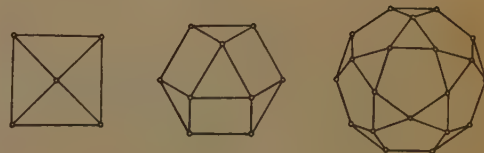
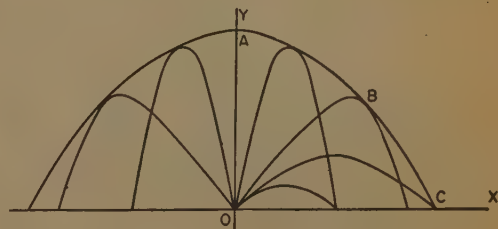
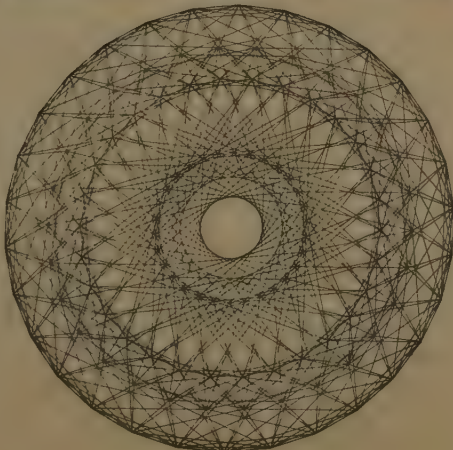


Regular Polytopes
H.S.M. Coxeter
1948; 63; 321pp.

\$4.95 postpaid

from:
Crowell Collier and MacMillan
866 Third Avenue
New York, New York 10022

or WHOLE EARTH CATALOG



★ Edlie's Flyer

Beginners in electronics who don't want to be stuck with very beautiful but very unusable gadgets (and also experts who know what's-used-for-what) can get a lot of value from industrial (civilian) surplus electronics, these days.

For the "consumer" uses of electronics—music, p.a., TV, repair parts and instruments, experimenting—Edlie Electronics has the best selection and the lowest prices of any mail-order dealer I have found.

They handle everything from hi-fi components (e.g. an FM tuner from a discontinued console) to single resistors. Some of it is new, and some of it is sold "as is" (e.g. small radios and tape recorders returned to the store under a warranty).

If you don't feel safe about repair work or experiments, though, better concentrate on getting electronic stuff with a dependable guarantee, maybe by buying from a repair shop.

[Suggested and Reviewed by John Huntley]

Edlie's Flyer Catalog free

from:
Edlie Electronics, Inc.
2700 Hempstead Turnpike
Levittown, Long Island,
New York 11756

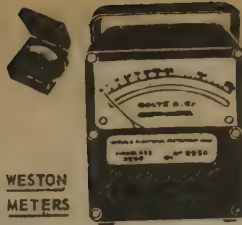


CT628 CLAIRE STEPPING RELAYS MODEL 26 (removed from brand new chassis -- similar to picture), 26 positions, 10 poles. 24-36 volts.
Price only \$8.95

CT629 CLAIRE STEPPING RELAYS TYPE 211. 11 positions, 6 poles. 24-36 volts.
Price \$3.95

CT630 TELEPHONE RELAY. 24-36V. 2500 ohms. No. 37 E.C. 2 sets of contacts: one set 2P, 3T. second set 2P, 4 T.
Price 65¢

CT631 WESTERN UNION TEL. CO. CHASSIS. Consists of 1 - No. 26 Relay (as listed above); 3 - No. 211 Relays (as listed above) 1 - No. 37 E.C. Relay (as listed above.) Comes mounted on a brand new chassis.
Bargain Price for Complete Chassis (including 5 relays) only \$18.95



WESTON METERS

CT281 WESTON MODEL NO. 1 Precision Mirror Backed Meters.
A) D. C. Voltmeter, dual scale, fan type 0-75, 0-150 D.C. Volts. **Price \$37.50**
B) D. C. Voltmeter, Triple Scale, 0-150, 0-300, 0-750 Volts D.C. **Price \$41.50**



CT548 TRANSDUCER 200 K.C. Made by Brush. Brand new. For use with Marine Depth Finder Equipment or experimental purposes.
Price only \$2.95

★ Electronics

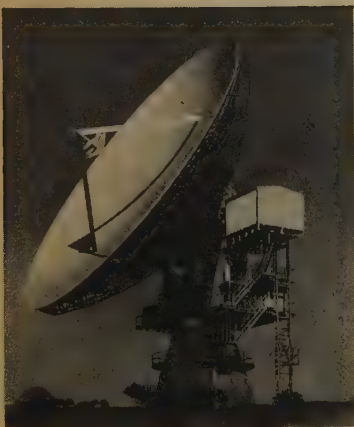
For technical freaks. If you are a double e ENGINEER, the articles may be of interest. Otherwise, spend your time with the ads. Learn about all the new hardware and bits and pieces. Reader service card whereby all of the advertisers will send you piles of shit on their products. By far the best part is the Electronics Buyers Guide, a three-inch thick directory that comes once a year and lists all manufacturers (and their sales reps) that have anything to do with electronics.

Don't forget your title and company name. Get a subscription blank from one at the library and have no trouble.

[Reviewed by Fred Richardson]



Electronics
\$8.00 a year, biweekly
from:
Electronics
P.O. Box 514
Hightstown, N.J. 08520
Subscription department



Subscriptions limited to persons with active, professional, functional responsibility in electronics technology. Publisher reserves the right to reject non-qualified requests. No subscriptions accepted without complete identification of subscriber name, title or job function, company or organization, including product manufactured or services performed. Subscription rates: qualified subscribers in the United States and possessions and Canada, \$8.00 one year, \$12.00 two years, \$16.00 three years; all other countries \$25.00 two years. Limited quota of subscriptions available at higher-than-basic rate for persons outside of field served, as follows: U.S. and possessions and Canada, \$25.00 one year; all other countries \$50.00. Air freight service to Japan, \$60.00 one year, including prepaid postage. Single copies: United States and possessions in Canada, \$1.00; all other countries, \$1.75.

October 5, 1970

Mr. Megan Raymond
WHOLE EARTH TRUCK STORE & CATALOG
558 Santa Cruz Avenue
Menlo Park, CA

Dear Mr. Raymond:

As you will undoubtedly recall, back in June I'd written to you expressing our apologies over the unfortunate misunderstanding that occurred when we originally received your request for approval to list Heathkit products in the WHOLE EARTH CATALOG.

I assume our recognition of the "error of our ways", plus the letter sent to you at that time, have rectified the situation. I must add that "I surely hope so" . . . as your readers have really made believers out of us! Although it has been quite embarrassing for us, it certainly points to the fact that the WHOLE EARTH CATALOG is carefully read by large numbers of highly intelligent, perceptive and articulate people. We're impressed!

Aside from the above, I'm taking this opportunity to write for two reasons. First, I'd like you to enter my subscription to the WHOLE EARTH CATALOG and bill same to me here at the office. Secondly, I'm enclosing three copies of our new 1971 Heathkit catalog . . . just off the press.

In summary, and at the risk of redundancy, you may be assured that we're "for you" . . . not "against you"!

Yours very truly,
SCHLUMBERGER PRODUCTS CORPORATION
William E. Johnson
Vice President

Heathkit catalog free

from:
Heath Company
Benton Harbor, Michigan 49022



Integrated Circuit Multiplex



★ Communication Arts

a slicky for graphics freaks, and ad men, people who cut things out of magazines, to paste them on walls, christmas cards, kleenex boxes, and catalogs. expensive but pretty.

-jd



Communication Arts
Richard Coyne, editor.

\$15.00 per year (bimonthly)

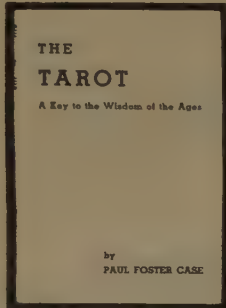
from:
Communication Arts
P.O. Box 10300
200 California Avenue
Palo Alto, California 94303



★
The Tarot

tarot cards are a way of plugging into ancient symbolism. they probably shouldn't be used for blackjack or strip poker. i've seen quite a few decks in the hands of counter culture gypsies, but have yet to run into someone who knew much more than how to shuffle them. maybe we have been starting at the wrong end of things. instead of getting the cards first and trying to divine their meaning, try doing this book, learning about the symbolism, then building your own deck from the information you've gathered.

-jd
[Suggested by Sam Bercholz]



The Tarot: A Key to the Wisdom of the Ages
Paul Foster Case
1947; 215pp.

\$4.00 postpaid

from:
Macon Publishing Company
Box 9825
Richmond, Virginia 23228

by
PAUL FOSTER CASE

O. An ellipse, representing the Cosmic Egg, whence come all things. Zero is a symbol of the absence of quality, quantity, or mass. Thus it denotes absolute freedom from every limitation



whatever. It is a sign of the infinite and eternal Conscious Energy, itself No-Thing, though manifested in everything. It is That which was, is, and shall be forever; but is it nothing we can name. Boundless, infinitely potential, living light, it is the rootless root of all things, of all activities, of all modes of consciousness. In it are included all imaginable and unimaginable possibilities, but it transcends them all. The Qabalists call it: (a) No-Thing; (b) The Boundless; (c) Limitless Light. Pure Conscious Energy, above and beyond thought, to us it is *Supereconsciousness*.

The inventors, this tradition avers, were a group of adepts who met at stated intervals in the city of Fez, in Morocco. After the destruction of Alexandria, Fez became the literary and scientific capital of the world. Thither, from all parts of the globe, came wise men of all nations, speaking all tongues. Their conferences were made difficult by differences in language and philosophical terminology. So they hit upon the device of embodying the most important of their doctrines in a book of pictures, whose combinations should depend on the occult harmonies of numbers.

★
Mind, Matter, and Gravitation

Mind, Matter and Gravitation, #11 of the Parapsychological Monographs

The way I would recommend this book is to recommend the whole mess, which is all of the Parapsychological Monographs. That is to say, if you have some sort of scientific interest in the "one step beyond" world, and you are capable of putting up with the scientific bullshit, and understanding all this probability, statistics, etc., then it seems to me that Duke University has gone and found some things out for you. In the particular book I read (Mind Matter and Gravitation) for the review, someone named Haakon Forwald has measured the amount of force a human mind can exert on an object, and then discovered that this force is in direct ratio to the avg. atomic weight of the surface of the object. Dig that. I went to Duke and used to read these things in my spare time, and it seems I remember that moving things with the will is only one of many far out things they are starting to prove.

[Reviewed by D. Smith]

Mind, Matter and Gravitation
Haakon Forwald
1969; 72pp.

\$3.00 postpaid

from:
The Parapsychology Foundation, Inc.
29 West 57th Street
New York, New York 10019
or WHOLE EARTH CATALOG

Experimental parapsychology is generally divided into two areas, one of them dealing with investigations of a psychic character (telepathy, clairvoyance, etc.), and other the dealing with investigations of a psychic character where physical effects also appear (for instance, a psychical influence on the movements of physical bodies). These areas are generally designated as ESP (extra sensory perception) and PK (psychokinesis). These terms are preferably used in connection with results obtained in quantitative experiments, in which a great number of trials are carried out under uniform conditions. The experimental series is planned in such a way that the results can be dealt with on the basis of generally recognized, even statistical methods. Psychokinesis is considered as a debatable occurrence by many parapsychologists. Most people believe that PK represents a physical impossibility because energetical laws are apparently violated. ESP is more easily accepted because many consider it explainable on the basis of some sort of "radiation." It is obvious that genuine PK results would require a reconsideration of the general validity of energetical laws. This is such a profound problem that extraordinary care must be taken in conducting PK experiments and in analyzing their results. If in a PK experiment the statistical significance of the results strongly suggests that there have been deviations from recognized physical laws, the validity of the experiment will hardly be convincing. Reasons for the observed deviation are generally sought in defective experimental conditions, faulty observations, and the like. Thus, over the years, conditions in PK research have gradually been improved (for instance by introducing photographic methods) but extra-physical effects have nevertheless been uncovered.

... the investigations suggest that the mental efforts of the experimenter (and to some extent factors beyond his conscious control) produce a reaction within the atomic nuclei of the cube material, and that this reaction releases gravitational effects which are controlled in a suitable way during the movement of the cube. The energy required for the lateral movement is then considered to be delivered by the cube through the transformation of a tiny part of the cube material from mass to energy according to Einstein's formula $E=mc^2$ where c is the velocity of light. The loss in mass is far too small to be measured as the difference in weight of the cube before and after an experimental series. But it should in principle be possible to determine by mass-spectrometry whether the isotope composition of the cube material was changed during the experiment. A positive result in such an investigation might give a direct proof of the existence of psychokinesis.

★
The Aquarian Alphaphone

a device for communication with self, based on the notion that certain vibrations are better than others. if you have a hundred and seventyfive bucks, and were considering using it to learn how to bowl, for instance, i'd recommend listening to yourself, first.

-jd

The Aquarian Alphaphone
\$175.00 (information free)

From:
PO Box 627
Mendocino, CA 95400



In many studies of various meditative techniques it has been found that the major, significant difference between a "master" and a "novice" of the technique is that the master produces more of a stronger brain wave which is known as the Alpha-wave. The brain is continuously producing very small electrical currents which occur in various places in the brain. For example, the brain wave which is produced in normal consciousness is known as the Beta-wave and occurs with a frequency greater than 13 cycles per second. The Alpha frequency range is from 8 to 12 cycles per second and is usually associated with light sleep. Alpha-wave production is usually random. Recent experimental studies have shown, however, that a person can learn to turn on the Alpha rhythm at will. In fact, a researcher, working with paid subjects, found that ALL subjects learned to control their Alpha rhythm, i.e. they learned this mental control. Given a choice, all subjects preferred to turn on their Alpha rhythm. The researcher now has a long waiting list of volunteer, non-paid subjects.

Human Biocomputer

BACK IN PRINT. After a year of absence, this landmark paper is back at a lower price (formerly \$7.95, now \$1.50).

John Lilly has worked for a long time with sensory deprivation, pursuing the notion that relieving the computer (mind) of many of its environmental-survival chores frees it to attend more fully to self-investigation. Of late he's added LSD to the process and has found ways to flourish and discover within this doubly floating condition.

The paper HUMAN BIOCOMPUTER is the best internal guidebook I've seen—far more practical and generalized than transcendent Eastern writings or wishful Underground notes. Though it's not the whole story by any means, it makes an open start on fresh language and powerful technique for the frontier.

An additional advantage the paper offers is the opportunity to learn and explore computers without requiring money or administrative approval. You inherited and grew everything you need, and it's free.

[Suggested by Ralph Metzner]

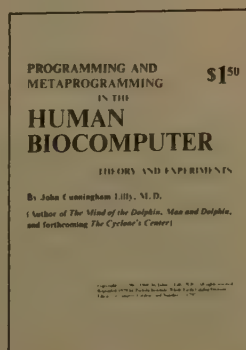
Programming and Metaprogramming in the Human Biocomputer—Theory and Experiments

John C. Lilly, M.D.
1967, 1970; 112 pp.

\$1.50 postpaid

from
WHOLE EARTH CATALOG
558 Santa Cruz Avenue
Menlo Park, Ca. 94025

copies for resale from:
BOOK PEOPLE
2940 Seventh Street
Berkeley, California 94710



The major problems of the research of interest to the author center on the erasability, modifiability, and creativity of programs. In other words, I am interested in the processes of finding metaprograms (and methods and substances) which control, change, and create the basic metaprograms of the human computer. It is not known whether one can really erase any program.

I believe that by using certain methods and means some of which are presented in this work that truly talented and dedicated individuals can forge, find, and devise new ways of looking at our minds, ways which are truly scientific, intellectually economical, and inter-actively creative. Consider for example, the case of the fictitious individual created by the group of mathematicians masquerading under the name of "Dr. Nicholas Bourbaki".

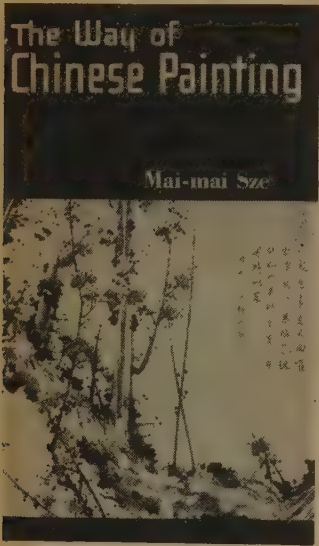
This group of mathematicians in order to create a mathematics or sets of mathematics beyond the capacity of any one individual, held meetings three times a year and exchanged ideas, then went off and worked separately. The resulting papers were published under a pseudonym because the products of this work were felt to be a group result beyond any one individual's contribution.

In the maximally attenuated environment (92 to 95 degrees F. isothermal skin, salt water suspension, zero light levels, near-zero sound levels, without clothes, without wall or floor contacts, in solitude in remote isolation, for several hours), the addition of LSD-25 allows one to see that all the previous experiences with "outside screens" are evasions of deeper penetration of self (and hence are "screens" in the sense of "blocking the view behind", as well as "receiving the projected images").

★ **The Way of Chinese Painting**

chinese painters do more with brush, ink, inkstone and paper than western gadgeteers accomplish with their complicated mixing formulas, apprenticeship programs, and didactic traditions. has a lot to do with thinking simply. this book can provide you with good access to the tools and ideas of eastern brush painting, things you can carry around in your hip pocket as you move; you provide the practice.

-jd



The Way of Chinese Painting
Mai-mai Sze
1956, 59; 456pp.

\$1.65 postpaid

from:
Random House, Inc.
Random House Building
201 East 50th Street
New York, New York 10022

or WHOLE EARTH CATALOG

The materials of Chinese painting—brush, ink, inkstone, paper—are the same as the simple equipment on the table in a scholar's study. Always held in deep respect, they have long been called the Four Treasures of the Abodes of Culture. Each is dependent on the others, and all are highly prized. Each has a long history of development amounting to a pedigree. Each is also endowed with symbolic significance that has enveloped it in elaborate layers of meaning. Besides paper, silk has also been used for paintings, and, besides ink, colors; so that silk and colors should be included in discussing the materials of painting.

Lu Ch'ai says:
Among those who study painting some strive for an elaborate effect and others prefer the simple. Neither complexity in itself nor simplicity is enough. Some aim to be deft, others to be laboriously careful. Neither dexterity nor conscientiousness is enough. Some set great value on method; others pride themselves on dispensing with method. To be without method is deplorable, but to depend entirely on method is worse.

You must learn first to observe the rules faithfully; afterwards, modify them according to your intelligence and capacity. The end of all method is to seem to have no method.

Choose an umber that is hard and of a beautiful hue. These are the two points to keep in mind in picking the best. There are kinds that are hard as iron, others soft as mud; they are not all desirable.

Use a small earthen bowl in which to grind the color, with a little water, to the consistency of mud. Then add a lot of clear glue and water and stir well. Skim off the upper layer for use. Drain off the bottom layer, which is coarse and dull in color, and throw it out.

PURIFYING WHITE

In paintings, the areas where white is used often darken. Chew the heart of a bitter apricot seed, and with the juice wash these spots once or twice. The dark spots will then disappear.



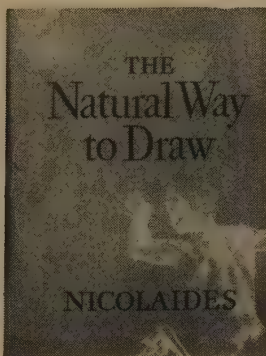
The Natural Way to Draw

Drawing is a deeper and wider kind of writing. It's better communication in many ways than writing, and it's much closer to your mind. (The same goes for music and speech.)

This classic work by an outstanding art teacher is not only the best how-to book on drawing, it is the best how-to book we've seen on any subject.

-SB

[Suggested by Roy Sebern]



The Natural Way to Draw
Kimon Nicolaides
1941; 221 pp.

\$6.00 postpaid

from:
Houghton Mifflin Company
Wayside Road
Burlington, Massachusetts 01803

or WHOLE EARTH CATALOG

TWO TYPES OF STUDY. The way to learn to draw is by drawing. People who make art must not merely know about it. For an artist, the important thing is not how much he knows, but how much he can do. A scientist may know all about aeronautics without being able to handle an airplane. It is only by flying that he can develop the sense for flying. If I were asked what one thing more than any other would teach a student how to draw, I should answer, "Drawing—incessantly, furiously, painstakingly drawing."

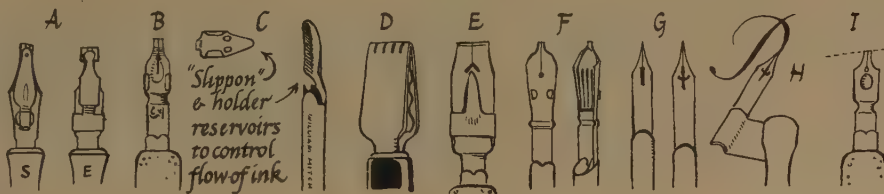
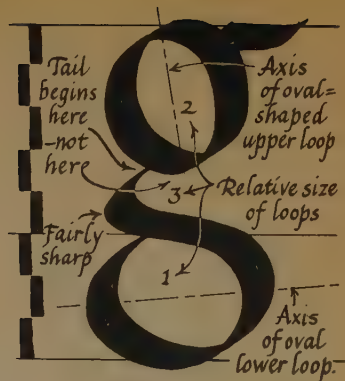
Probably you realize already that contour drawing is of the type which is to be done "painstakingly". On the other hand, gesture drawing, which you will begin today, is to be done "furiously". In order to concentrate, one can act furiously over a short space of time, or one can work with calm determination, quietly, over a long-extended period. In learning to draw, both kinds of effort are necessary and the one makes a precise balance for the other. In long studies you will develop an understanding of the structure of the model, how it is made—by which I mean something more fundamental than anatomy alone. In quick studies you will consider the function of action, life, or expression—I call it *gesture*.



Calligraphic Lettering with wide pen and brush

calligraphic lettering, by ralph douglass, presents a lot of different forms of lettering; italic, chancery cursive, english roundhand, spanish gothic, etc., but it's up to you to do them right. he just shows you what the letters should look like.

[Suggested by Cappy McClure
Reviewed by Ruth Wyant]



Inverse twins: Also twins, but different: *d p*

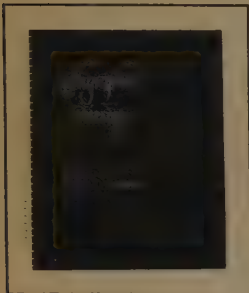
q b Note in these four letters that the circle would come outside the stem if completed.

Get the "o" ROUND - so: *o* not so: *o*

Do NOT move the first stroke down - swing it back and down.

Then begin in the wet - and finish the job.

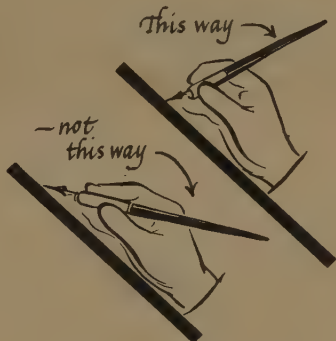
Modern vs. Old Style Try *S* both ways



Calligraphic Lettering with wide pen and brush
Ralph Douglass
1949, 68; 111 pp.
\$5.95 postpaid

from:
Watson-Guptil Publications
165 West 46th Street
New York, New York 10036

or WHOLE EARTH CATALOG



Printers' Supply Book

A look at the Whole Earth Catalogue or any other piece of printing (especially "Movement" stuff) confirms that the items sold by the Kelsey Co. are obsolete—today good, cheap quick printing is done offset. And Kelsey sells only letterpress equipment. But they have a full line—everything. Good and reasonably priced.

For the holdout who still prints letterpress and wants to make some cash from stationary, business cards, billheads, invitations and announcements or just fiddle in the basement, Kelsey has the supplies. I wouldn't suggest buying a hand press from them. They are costly, especially since good used Chandler and Price or other motor-driven hand fed presses can be gotten cheaply. But they do sell all sizes of paper and will custom cut. This is a help to the person who is not employed at a printing office where he can get off-cuts or paper at cost. And they have the whole range of equipment—bodkins, line gages, composing sticks, type cases and stands, galley, quoin, furniture, reglets—the works. A nice range of inks is listed, and they are ready to answer your letter about inking problems.

Their types cover a wide range. The job printing standbys are all there—Copperplate and Bond Gothics; Caslon, Goudy, Caramond; Egyptians; and the whole mess of ugly cursives you need to do social stationary for your aunt. Several are worthy of note. Steelplate Shaded is one. There isn't much use for this, but it is well-designed and fine-looking. A rather mundane range of sans-serif wood type is listed. Two lines of type are sold—New England and Connecticut. With the Connecticut faces (more expensive) spaces and quads are included. Fonts are sold in regular, large or all cap.

Service reputed to be good to East Coast. Can't say about other areas.

Will Powers
RFD 2
Lancaster, New Hampshire
03584

Printers' Supply Book

\$.35 (refunded with first order)

from:
The Kelsey Company
Meriden, Connecticut 06450

Bodkin, tempered steel with handle, .30
Ship. Wgt. per bodkin, 1/4 pound



Useful when setting or making up forms, especially forms which are too large to go in the composing stick. Also to hold forms that you want to keep set-up. **Rustproof Steel.**

From actual experience in our printing department we find these the most practical sizes.

6 x 10	inches	Ship. Wgt.	2 lb	.78
8 1/2 x 13	"	"	3 1/2	.85
10 x 16	"	"	4 1/2	1.08



Line Gage, for all printers' measurements; is made from heavy polished metal—very plain and easy to read, graduated on one edge to picas (12 points) and 1/2 picas (6 points), and on the other edge to inches. **No. 2**, 12 inch, 1.65

STEELPLATE SHADED

No. 6011	6 Point	15A \$6.40—5A \$3.15
WITH THIS STEELPLATE SHADE		
No. 6012	6 Point	10A \$6.40—5A \$4.20
AT MODERATE PRICES & 75		
No. 6013	6 Point	10A \$6.40—5A \$4.20
USE LITTLE INK AND 3		
No. 1214	12 Point	10A \$9.20—5A \$5.60

ADD SOME BLUE 7

No. 1215 12 Point 7A \$9.20

GRAY LOOK 5

No. 1216 12 Point 6A \$9.20

USE WITH 3
ABCDEFGHIJKLMN OP
QRSTU VWXYZ & . : ; - ' " ! ?

QUOINS—to lock forms in chase. (C)

Kelsey, the most popular of all quoin sets, per set of two pcs. .48
half-dozen sets, 2.30
per dozen sets, 3.75
Kelsey Key Wrench, 1.45

COMPOSING STICKS (C)



Excelsior Job, new improved model, 8 inch, (Capacity 36 picas) 3.85
Shipping Weight, 1 pound

NAZ-DAR

complete catalog of paraphernalia for screen printing; in case you need a few posters or bumperstickers.

—jd

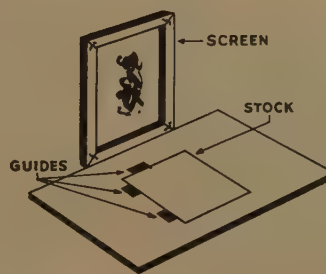
Problems Answered

The film refuses to adhere to the silk. The silk was not washed with both solvent and water before use. Insufficient solvent is used during adhering operation.

The film buckles while cutting. There is an excessive humidity, hence the work must be handled rapidly and not allowed to stand around too long before adhering.

Catalog free

from:
The NAZ-DAR Company
1087 N. North Branch Street
Chicago, Illinois 60622



Spots appear on the print. Pieces of dirt or lint get on the under surface of the screen and must be picked off. Fine skins from the ink have been ground into the meshes of the silk by the squeegee action, necessitating washing up of the job.

Colors on a several color job fail to register. The film is allowed to lie around after cutting and expands on a very humid day. The guides moved during printing of early colors. The frame is loose or sprung from constant, hard use. The first colors were not printed with all sheets fed carefully to guide.

STENCRAFT STENCIL SILK (Price per Yard)

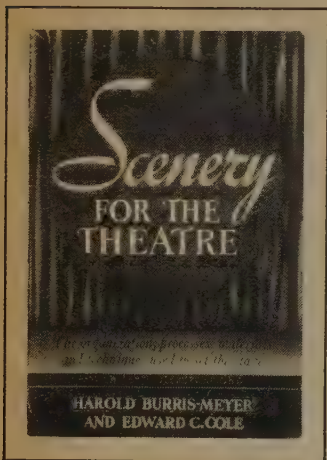
number	Mesh	Count	Width	Yards	1-14	15-29	30
6xx	70	40"		\$3.45	\$3.20	\$3.00	
8xx	86	40"		3.60	3.35	3.10	
10xx	107	40"		4.00	3.70	3.45	
12xx	125	40"		4.25	3.95	3.65	
14xx	139	40"		4.55	4.20	3.90	
16xx	156	40"		5.60	5.20	4.85	

	Per Inch
No. 5100 Complete Squeegee, Black Rubber, Medium Grade	\$.20
No. 5102 Black Rubber only	.15
No. 5150 Complete Squeegee, Gray Rubber, Hard Grade	.20
No. 5151 Gray Rubber only	.15
No. 5200 Complete Squeegee, Amber Rubber, Soft Grade	.20
No. 5202 Amber Rubber only	.15
No. 5420 Complete Squeegee, Extra Hard Grade	.20
No. 5421 Rubber only	.15

*** Scenery for the Theatre**

me and carl were stage carpenters
once upon a time
and we built a good part
of what's in this book,
flats, traps, platforms, risers,
doorways, windows, parallels,
bartables, machineguns, crossbows . . .
the standard procedures, tools, and tricks
for the grand illusion are here,
maybe someone can use this book,
and a little soul
and breathe some life back into the theatre,
bring it out into the streets.

-jd



Scenery for the Theatre
Burris-Meyer and Cole
1938; 66; 473pp.

\$15.00 postpaid

from:
Little, Brown and Company
200 West Street
Waltham, Massachusetts 02154

or **WHOLE EARTH CATALOG**

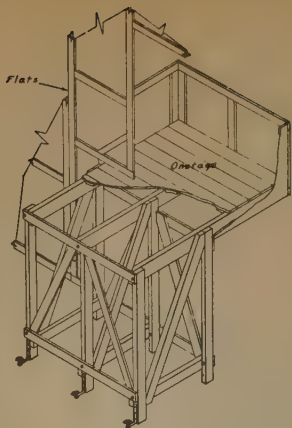
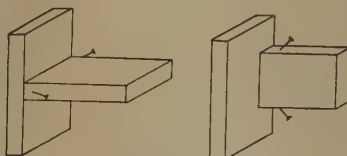
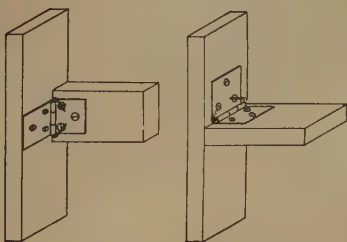


Fig. VIII-36.
A cantilevered balcony



i. Butt



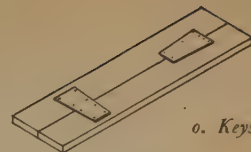
i. Loose pin hinge

Characteristics of the Craft. Scene construction is chiefly a specialized type of joinery. The materials and technique of the woodworker are adapted and other techniques and materials introduced for the manufacture of structures which differ from the ordinary product of the carpentry shop, cabinet shop, or woodworking mill. The nature and uses of scenery impose requirements which make scene construction a craft by itself with which the ordinary carpenter or cabinet maker is unfamiliar.

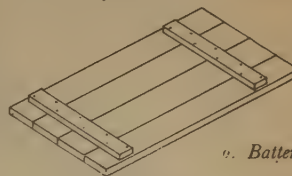
Scene carpentry differs from other forms of carpentry and cabinetwork in several respects: 1. The objects built must be demountable and portable, and yet when assembled they must show no evidence of joining. 2. Scenery is built for use during a short period of time, as compared with furniture, dwellings, etc. 3. Scenery presents only one finished side or face to the audience. 4. Scenery is never seen or examined at close range.

Scenery which has to be demountable and portable must be built in pieces which fit neatly together and which are strong enough to withstand intermittent and often rough handling. The frames must hold their shapes rigidly so that the fit is assured each time they are assembled. There can be no cutting to fit when the scenery reaches the stage. Each piece must be constructed exactly to size and shape as planned. Rebuilding of scenery, when it reaches the stage, is costly.

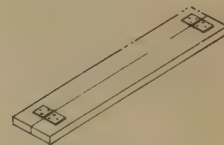
The fact that scenery is used for a shorter period of time than other carpentered objects allows the use of lumber of smaller cross section than is generally used in weight-bearing structures, since deterioration and constant use do not enter into the determination of the safety factors. For the same reasons and for reasons of workability, softwoods are used in scene carpentry, where hardwoods would be used in ordinary carpentry and cabinetwork.



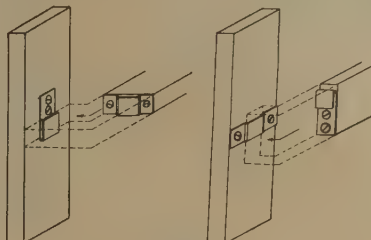
o. Keystone



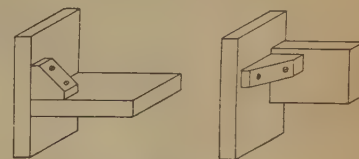
o. Battens



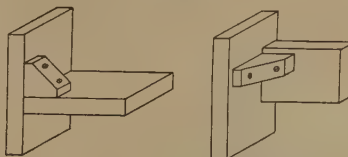
o. Tight pin hinges



i. Picture hook



k. Block



l. Housed

*** Towards a Poor Theatre**

The strongest work in theater lately is Jerzy Grotowski's.
This is his book. Social yoga, with balls.

-SB
[Suggested by Robert Frank]

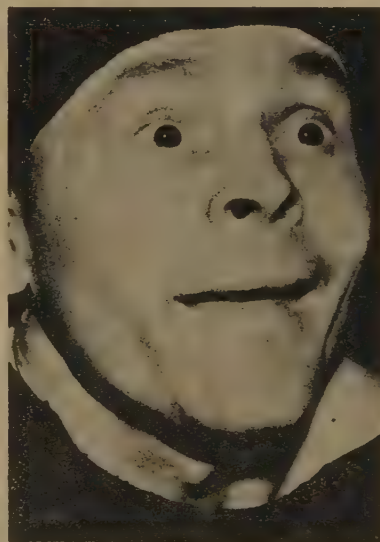


Towards a Poor Theatre
Jerzy Grotowski
1968; 262 pp.

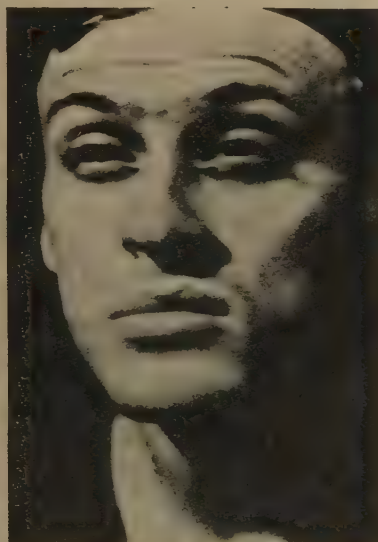
\$2.45 postpaid

from:
Simon & Schuster, Inc.
630 Fifth Avenue
New York, N. Y. 10020

or **WHOLE EARTH CATALOG**



Akropolis: Masks created solely by the facial muscles (Zygmunt Molik, Zbigniew Cynkutis, Rena Mirecka). Photo: Teatr-Laboratorium.



There is one absolute rule
Bodily activity comes first, and then
vocal expression. Most actors work
in the opposite order.
First you bang on the table and
afterwards you shout!
The vocal process cannot be free with-
out a well functioning larynx. The
larynx must first be relaxed, and then
the chin and jaws.
If the larynx does not relax and open,
you must try to find a way to make it
do so. That is why I asked the third
pupil to stand on his head. If he does
this, and at the same time speaks,
shouts or sings, there is a good chance
that the larynx will open.



If the actor, by setting himself a challenge publicly challenges others, and through excess, profanation and outrageous sacrilege reveals himself by casting off his everyday mask, he makes it possible for the spectator to undertake a similar process of self-penetration. If he does not exhibit his body, but annihilates it, burns it, frees it from every resistance to any psychic impulse, then he does not sell his body but sacrifices it. He repeats the atonement; he is close to holiness. If such acting is not to be something transient and fortuitous, a phenomenon which cannot be foreseen in time or space: if we want a theatre group whose daily bread is this kind of work—then we must follow a special method of research and training.

When I take sides against half-heartedness, mediocrity and the easy-come-easy-go attitude which takes everything for granted, it is simply because we must create things which are firmly orientated towards either light or darkness. But we must remember that around that which is luminous within us, there exists a shroud of darkness which we can penetrate but not annihilate.

Contact is one of the most essential things. Often when an actor speaks of contact, or thinks of contact, he believes that it means to gaze fixedly. But this is not contact. It is only a position, a situation. Contact is not staring, it is to see. Now I am in contact with you, I see which of you is against me. I see one person who is indifferent, another who listens with some interest and someone who smiles. All this changes my actions; it is contact, and it forces me to change my way of acting.

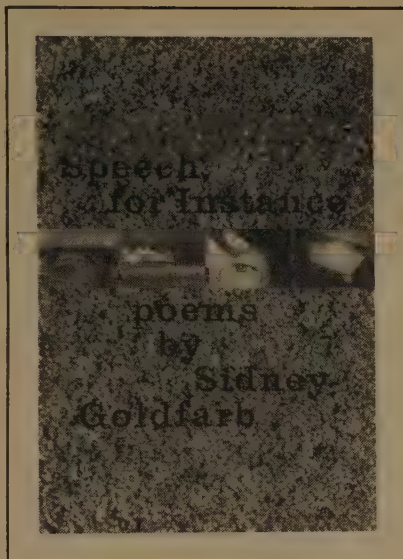
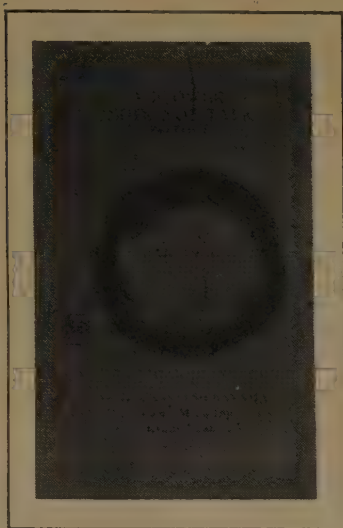


The costumes are bags full of holes covering naked bodies. The holes are lined with material which suggests torn flesh; through the holes one looks directly into a torn body. Heavy wooden shoes for the feet; for the heads, anonymous berets. This is a poetic version of the camp uniform. Through their similarity the costumes rob men of their personality, erase the distinctive signs which indicate sex, age, and social class. The actors become completely identical beings. They are nothing but tortured bodies.

The inmates are the protagonists and, in the name of a higher, unwritten law, they are their own torturers. The merciless conditions of the extermination camp constitute the milieu of their lives. Their work crushes them with its size and its futility; rhythmic signals are given by the guards; the inmates call out in screams. But the struggle for the right to vegetate and to love goes on at its everyday pace. At each command the human wrecks, barely alive, stand up erect like well-disciplined soldiers. The throbbing rhythm of the play underscores the building of the new civilization; the work expresses the inmate's stubborn will to live, which is constantly reaffirmed in every one of their actions.

*** A Flower Does Not Talk**
presumably a flower does not review either.
 -jd

A Flower Does Not Talk: Zen Essays
 Abbot Zentai Sablayama
 1970, 264 pp.
 \$2.75 postpaid
 from:
 Charles E. Tuttle Company
 28 South Main Street
 Rutland, Vermont 05701
 or WHOLE EARTH CATALOG



*** Speech, for Instance.**
dear sydney,
seem to have lost track of you.
 -jd

Speech, for Instance
 Sydney Goldfarb
 1965, 69, 69pp.
 \$1.95 postpaid
 from:
 The Noonday Press
 19 Union Square West
 New York, New York 10003

Girl in the Green Dress

Out of
 the window of
 the truck which I am
 driving into the outskirts of
 Albuquerque (it is almost spring in
 New Mexico! The warm air is heavy with
 tendency!), out of
 the window of
 the truck in which I am
 the only passenger
 I see a bright yellow schoolbus
 come to a stop and out of it
 delicately stepping
 a girl in a green dress!
 My mouth falls wide open
 in awe as I stop also
 as required by law
 and the presence of officers with
 their sling pistols and enormous bellies
 protecting the young
 people from the likes of
 me.

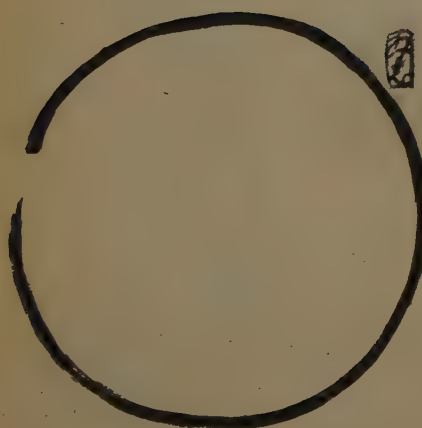
But the girl in the green dress!
 She is so Mexican! She is so
 Indian! that the pale
 face from Massachusetts is fired
 by the black eyes and eyebrows
 against the pure olive skin, the long, slow rise
 of the cheekbones and the black
 straight immaculately shining
 hair which plummets (Aieee!
 Aieee!) un-
 encumbered down
 to the small
 of her back.
 And the way
 she is stepping
 so carefully
 as if
 she were barefoot
 and the streets
 of Alameda
 were strewn with broken glass.
 This is what gives that incredible angle
 to the line of her calves
 and makes the tips
 of her ankles
 cut and glint in the sunlight
 through window and eyelid
 to such dreams as brim up
 on the edge of spring:

For she is so much
 the thing that she is
 that I cannot decide
 whether to take her to Brooklyn Heights
 to watch Manhattan at midnight
 or to Sausalito
 to watch San Francisco
 emerging
 in the early dawn.
 She is so contained in her green dress!
 That is her territory!
 That is where she lives
 with the breasts and buttocks and
 honeydripping unpenetrated and
 she has lived with all her life!
 Where could I take her
 now that she
 has gone past me
 to do her homework?
 (I could come back
 tomorrow and ask to borrow
 her geography book.
 I could say
 I was a boy
 in a red-checked shirt
 trying to get some sense
 of the landscape...)
 But they are waving me on!
 They are waving me on with cruel gestures!

O my friends the officers of the outskirts
 of Albuquerque.
 With your slung pistols and enormous bellies
 With your rigid enforcement of a 15 MPH
 school zone limit
 Standing outside Albuquerque on the day
 before the day before the first day of spring
 Beware of the young men who pass you in trucks
 They are so easily overcome by beauty
 And they may like myself pose a certain threat



The First Picture:
 AWAKENING OF FAITH



The Fifth Picture:
 BOTH FORGOTTEN

人
 之
 新
 辰
 秋
 色
 可
 信
 來
 年
 有
 好
 景
 逢
 多
 好
 景
 今

Solar-heated-rhombic-dodecahedron
 for Steve Baer

a man
 is blessed
 who assists
 in the building
 of a solar-heated-
 rhombic-dodecahedron.

I don't mean
 to say technology
 itself is holy
 (though that too
 may be
 an element)

I mean
 heat rises.
 Rocks preserve heat.
 Assymmetrical dwellings
 can stand by themselves
 if properly
 arranged.

No.
 I mean the shovel
 in my hands.

I mean
 the cottonwoods
 by the river.

I mean the dark
 scent of dust
 nudged up
 by a few
 new drops
 of rain.

Dammit!
 What I mean is the cloudburst!
 (Which drenches us
 and makes us huddle together
 in the cold
 pickup our
 only shelter.)



Zen Master Rinzai

The real life and spirit of Zen is an experiential
 fact. It does not rely on letters, that is, on written
 or verbal expressions which function within the
 dualistic limitations. From the very beginnings of
 human self-consciousness, human beings have been
 making the mistake of confounding the experiential
 fact and its expressions in letters, which are just
 the conceptual shadows of the fact. We are liable
 to believe that the experience itself exists in letters
 and words. Zen, which insists that the direct, genuine
 experience is basic, regards letters and verbal
 expressions as of secondary importance.

LIBERATION NEWS SERVICE



★ Liberation News Service

this is the closest thing we have to an alternative CBS, NBC, ABC, UP, or AP. if you are having trouble getting the news you want to know about, and particularly if you are doing a newspaper of your own, you might try subscribing to LNS for a month. the price is high, mostly because customers are normally college newspapers, and "the underground press," but it's worth it for the point of view.

-jd

Liberation News Service

\$20.00 per month published two times a week

from:
Liberation News Service
160 Claremont Avenue
New York, New York 10027

FORGED LNS RELEASE ISSUED

Many, though not all, LNS subscribers recently received an LNS packet purporting to be a "Special" issue. It contained only one article, an attack on the Bay Area Revolutionary Union. THIS LNS "SPECIAL ISSUE" IS A FORGERY, PRODUCED WITHOUT ANY KNOWLEDGE OF THE LNS COLLECTIVE. So far, we have no knowledge as to the source of the forgery, and we urge anyone who has any such knowledge to get in touch with us immediately. In the meantime, we urge LNS subscribers to be careful that this slanderous attack on a legitimate political organization not be given any further circulation.

Forgeries of political publications are not unknown. Sometimes such forgeries are done with mere humorous intent. Often, they are the work of cranks—right-wing zealots, or disgruntled former members of left-wing groups. But forgeries can be a deadly serious business—especially as they can affect the attempt to build a world-wide revolutionary movement. In this case, for example, it is conceivable that the forgers were seeking to impede the growing cooperation between radical groups in this country and the Palestine liberation movement. Much of the article on the Revolutionary Union is designed to discredit that group in the eyes of the Palestinians. The CIA has been known to issue such forgeries. In the recent past, the CIA issued posters with the imprint of the Organization of Solidarity of the Peoples of Africa, Asia and Latin America (OSPAAAL), designing the posters in such a way as to sow dissent and confusion among African revolutionaries. Other recent examples of forged publications, probably the work of the CIA, were phony issues of Robert Williams' "Crusader" and Anna Louise Strong's "Letter from China."

Apollitical Intellectuals

One day
The apollitical
Intellectuals
Of my country
Will be interrogated
By the simplest
Of our people.

They will be asked
What they did
When their nation died out
Slowly,
Like a sweet fire,
Small and alone.

No one will ask them
About their dress,
Their long siestas
After lunch,
No one will want to know
About their sterile combats
With "the Idea
Of the Nothing"
No one will care about
Their higher financial learning.
They won't be questioned
On Greek Mythology
Or regarding their self-disgust
When someone within them
Begins to die
The coward's death.

They'll be asked nothing
About their absurd
Justifications
Born in the shadow
Of the total lie.

On that day
The simple men will come.
Those who had no place
In the books and poems
Of the Apollitical Intellectuals,
But daily delivered
Their bread and milk,
Their tortillas and eggs,
Those who mended their clothes,
Those who drove their cars,
Who cared for their dogs and gardens
And worked for them,
And they'll ask:
"What did you do when the poor
Suffered, when tenderness
And life
Burned out in them?"

-Otto Rene Castillo

LNS BOOK REVIEW: JERRY RUBIN'S DO IT!

by Jomo Raskin

There's something out of date about Rubin's perspective. "Marijuana makes each person God," he writes. "Grass travels around the room like a continually moving kiss." Today, 1970, that's where it's at. Much of what Rubin endorses died in the Haight and then again at Altamont.

Much of *Do It!* is about Did it. It's about the past. It's historical: the Free Speech movement, the Peace and Freedom Party, things down a long corridor behind us. Jerry doesn't yet have the perspective which can make those events of the past relevant to the next stage of the revolution.

And most of the things are what Jerry himself has done. I, I, I, I, I, I. Too much ego tripping, not a complex sense of a whole movement, a whole society exploding.

★ The San Quentin News

need yet another perspective?
this is the inmate newspaper
of san quentin prison.

-jd



The San Quentin News

\$1.00 per year, published bi-weekly

Subscription by Mail
from:
The San Quentin News
San Quentin, California 94960

The June 30 characteristics of prisoners has just been released according to Associate Warden James W.L. Park. The following figures represent the San Quentin population:

Homicide.....	14.0 %
Robbery.....	26.5 %
Assault.....	7.4 %
Burglary.....	14.1 %
Narcotics.....	13.8 %
Average age.....	31.8 years
Between 25 and 29 yrs old.....	31.0 %
No prior convictions.....	9.2 %
Lifers.....	8.9 %
From Southern California.....	60.4 %

TOKYO—Japan's most famous police dog, Alice, winner of a record 68 citations from the Superintendent General of Tokyo's Metropolitan Police, is dead at the age of 10 police announced.



★ Collectors News

scavenge,
prepare yourself for harder times,
work over a junkpile
collect the bright shiny goodies
and broken bb guns,
save them from the fires,
and chances are
somebody else
will be collecting them,
too.

[suggested by my folks]
-jd

Collectors News

monthly

\$3.00 a year

from:
Collectors News
P O Box 156
Grundy Center, Iowa 50638

COLLECTORS NEWS.

A Wide Range of Collectors Items - Antique and Modern

Box 156, GRUNDY CENTER, IOWA 50638 August, 1970 35¢ Per Copy

Came Before Engineers' "Castle"?

Colonel Builds Insignia Collection

Evan Edwin Murdoch

Director of U.S. Corps
near insignia and a
old has been created
period of two decades,
12 thousands of miles
I, and endless corre
3. There have been
personal contacts,
e calls to dealers, col
albums and private in
All leads and clote
entry followed Ward
B information from
ed reviews of the col



AUTOGRAPHS of anyone famous, especially of industrialist Howard Hughes. I also collect original law badges, (Sheriff, US Marshall, etc.). Price and describe first letter. PO Box 6294, Burbank, Calif. 91505. (1/1)

CLASSIFY your points, arrowheads & other Indian artifacts. Booklet, over 120 illust., age & history, from "Sandia" (23,000 BC) to recent. \$1 plus 8¢ postage. Old Southwest Museum, Hwy. 60, Mountainair, N. M. 87036.

90 BRITISH lead soldiers, 4 on horses, 3 with binoculars in hands, move to eyes, diff. positions — lying down, running, on knee, straight, with kilts, some w/movable arms, \$125 set; Majolica Shell & Seaweed teapot, "G.S.H" in circle, \$90; Grape & Cable Carnival open sugar & creamer, purple (N) green handles, green on bottom, \$65; smocking covered sugar bowl, flint, \$40. Insurance & postage extra. Excess refunded, SAE please. Mrs. Grace K. Osmondson, 129 Haddon Pl., Up Montclair, N. J. 07043. (10/0)

OLD radio programs on tape for sale. 6 hours for \$8. Catalog for 50c. Why pay more? Over 2,000 shows. Don Mar-is, 1926 Cherokee, Norman, Okla. 73069. (9/0)

WANTED: Rare old early period fruit jars, especially wax sealed & those with unusual closures. Also unusual lids. Joe W. Wenger, PO Box 249, Sabetha, Kan. 66534. *

Rags

Never fear, Rags is nowhere near a newsprint version of Glamour, so don't be put off by the fact that they talk about fashion sometimes. All they're really doing is talking about wearing your insides on your outsides. All of us feel that fashion can be superficial, trivial and irrelevant and it is . . . if you take it too seriously. Rags has zeroed in on fashion as just plain ole daily living and they look to the street for people who dig fashion as self-expression and not what-to-wear-when-and-why-not. They know that nobody should have to think twice about clothes or how they look except as a whimsical, trippy kind of safe-valve. Put on what you feel and you can't help but look beautiful. They print some good how-to articles, so you can pick up on all sorts of old and new recipes, beauty and otherwise, to make you feel better by doing it yourself and enjoying it all too. If your insides are being energized and revolutionized and beautified then those ole familiar outsides just have to be getting better too.

(Reviewed by Barbara DeZonia)



Rags

Subscription: **\$7.50** for 26 issues

from:
Rags
30 East 20th Street
New York, N.Y. 10003



Win

to change people, you must communicate with them. there are a number of ways to go about changing a person's mind. walk up to him on the street, grab him by the carnation lapel, and yell "boogetyshoo, you mistaken bastard!" or catch him asleep and whisper honeydrips of sweet poison into his ear . . . "think, think, think, think, think, think, think, think." or become a soothsayer, truthsayer, set yourself up as an honest person, say what you think in a cluster of different accents, get your hand gestures down, and pretty soon people will start listening to whatever you are putting out. to work this alternative, though, you must either have a high reputation, indian chief, lawyer, god, or you must have a pile of power, the president of a large north american country. you can change society with painting, bombing, sidewalk scribbling, love, banking, unbanking, skywriting, prayer, retooling, and meditation, but, power to the people, you must change people to change society. win tries. it is a together magazine.

-jd

Win

twice monthly, except for occasional monthly issues.

\$5.00 yearly

from:
Win
339 Lafayette Street
New York, New York 10012



In the morning the sun climbs the wall
Might that tower in the depth of the prison
and some lightning
the door flings shut,
Heavy behind in a hallway the computer for
The channel have somewhere to sleep,
the windowed house?
The water treat me to an end:
I lodge in the palace
the square table (over) everything out
Really the house in the street
Written on these illustrations from 1962
M. G. M. 1962-1963



A person can be out-of-odds with his society for one of two reasons: either that society is unhealthy (which ours is) or he is. I think we at Sunrise Hill made a sizeable mistake in assuming that our alienation was due almost entirely to the former reason. Even externally generated conflicts are bound to create internal ones, and it seems a rare individual who can escape these conflicts without the scars, maimings and weaknesses intrinsic to them. A neurotic society must produce neurotic individuals, and this is no less true for its rebels than it is for its conformers. Where the incompatibility of individual and society arose (in the individual or in the society) matters little, for it winds up in both. It is small wonder, then, that the people who came to Sunrise Hill bore "hang ups". Who else would be attracted to community, such a radical solution to their dilemmas? It is said that happy people do not volunteer to go to war. Neither, I say, do they join communities. The roots of this unhappiness may lie in either themselves or their world. We at Sunrise Hill did not know how to determine one from the other, and so we hardly tried; we accepted virtually all who came.

In addition, it must be confessed that more than one couple among them had already experienced difficulty with their marriage, or at least were not fully satisfied with it. I suppose that some were uncomfortable with the idea or actuality of monogamy, either because they had never experienced polygamous relationships—or because they had. To such couples with marital problems, community seemed to offer some relief but, as things turned out, little mending.

Nothing less than a revolution in revolution is happening. A new way of thinking is behind it. A new way of living is the result.

Expanded consciousness covers a multitude of virtues. A scope of interest that includes more time, more space, and more people not only brings new problems, such as ecology, into popular focus but also encompasses new responses.

Many people, of course, have already seen far enough to know that this summer is not going to end until we get off it. Yesterday ecology was a science. Today it is a social problem. Tomorrow, if we are to keep making this scene, it had better become something like a religion.

Thou shalt learn to live on thy planet, and keep it whole.

This requires more than your signature on a referendum. It means not just a rebellion in the streets and on the campuses. It takes you all the way down to your own body, your own family, and a revolution in your own home. It entails an extraordinary commitment to an entirely new way of life.

Rolling Stone

Primarily an emergent-music trade magazine, it has expanded to be the dominant newspaper to its Generation. The music information is still there, and so is dope notes, lengthy thorough reports on Generational heroes and events, and no-heavy-ax-to-grind-yet accounts of political occasions. The Stone's editorial standards, both on writing and graphics, are refreshingly high, and Wenner and crew have good ideas—which may save them from the cramp that Graham and the Fillmores got into with similar success in the same high-energy field.

—SB



Rolling Stone
Jann Wenner, ed.
(bi-weekly)

\$8 /yr. U. S.
\$12 /yr. Canada
\$14 /yr. Overseas

from:
Subscription Department
Rolling Stone
746 Brannan Street
San Francisco, CA 94103

Five years ago, "Satisfaction" was the number one song in the country. Five years ago, the Jefferson Airplane first started playing gigs at the Matrix. Ah, don't you just long for the good old days . . .

El for the Masses

PHOENIX, Ariz. — After cleaning up in Las Vegas, Elvis Presley will hit the road on his first tour since 1958. He begins here September 9th.

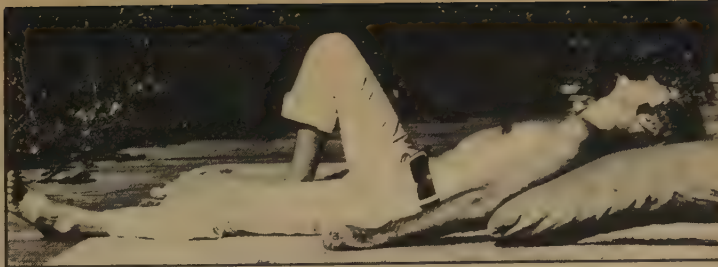
The rest of the tour has him in Detroit on the 10th, Miami the 11th, Mobile the 12th, Tampa the 13th, and St. Louis the 14th.

Elvis himself has also hinted at a worldwide tour for sometime next year. However, Colonel Tom Parker, who usually decides such things, has nothing to say about that possibility.

The Vegas gigs and a three-day engagement at the Astrodome in Houston have been the King's only live appearances since he made the girls scream back in the Fifties.

We ran across Grace Slick having a little dinner by herself at a barbecue house near the Airplane mansion, and she asked if we knew anybody who'd like to work for her as a nanny/babysitter. Not for Grace, of course, but for the baby she's expecting in December. "It'd be a weird job, because I have to fly out in the middle of night to go on tour or do a recording session," she said. "As for the baby: 'Well, I don't know. Most of the girls I've been around who do this sort of thing have ended up getting abortions.'" But she plans to be a mommy, with Paul Kantner the daddy. "I am a little worried, though," she said, "what with all the weird drugs we've been taking." As for her husband, Jerry: "It's OK. I haven't seen him in months, and he doesn't know."

Grace and Paul are planning to name the child—so help us—God. God Slick.



Owsley Stanley Serves Time

A costly grapevine: Word-of-mouth advertising has been institutionalized. An ambitious new company, Wordcasters, Inc., offers a network of 4,000 persons across the country who will spread the word about any new movie within 24 hours—at a cost of \$2 a mouth. Raves, of course, are guaranteed.

SAN FRANCISCO — Owsley Stanley just suffered three quick legal reverses in one July week, giving a convincing impression of a man being railroaded into prison:

- On July 13th he was denied a rehearing in the case of his old bust for an alleged LSD factory in Orinda, California, a Federal bust from 2½ years ago;

- Two days later he was busted for grass, dangerous drugs and narcotics in his home in Oakland, on a questionable warrant;

- On July 21st, in consequence of the Oakland bust, his bail was revoked in the LSD factory case. He is now in Terminal Island Federal Prison, Los Angeles, serving time on a three-year sentence. Terminal Island is the same prison that once housed Charlie Manson.

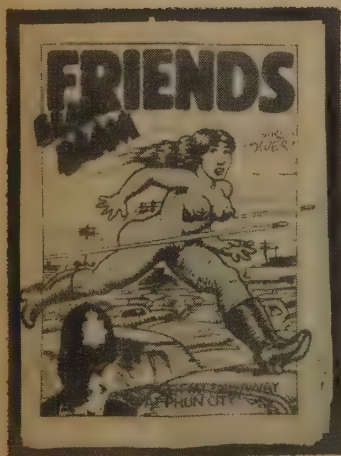
The Oakland bust, made in the morning while Owsley was asleep, is based on an extraordinary search warrant. Most warrants are based on affidavits by police officers or undercover agents who have seen evidence of drugs somewhere, but this one was given on the word of a narc who apparently had no personal knowledge of Owsley's house—nor of the citizen who came up to the station one day and told him Owsley was holding.



Friends

Friends still has an occasional insert called "Whole Earth Catalogue" but they have stopped ripping us off and gone into new European access to tools. Friends services the English rock scene with about the same fa-da-de-da as Rolling Stone in this country.

—jd



Friends

26 issues — \$14.40

from:
T.F. Much & Co.
305 Portobello Rd.
London W10, England



Geronimo's Hugh Nolan

JAMMY

While the Northern Ireland situation came back home to Parliament last month with the hurling of two CS gas canisters into the Chamber, no-one was able to ignore another growing complaint — the lack of free radio in this country. To make it all clear, the staff of Radio Geronimo, Hugh Nolan and Barry Everitt (programme planners) and several listeners 'jammed' the BBC building in Portland Place.

The 'jamming' was physical rather than technical, as jam-filled polythene bags were hurled at the building, in retaliation for the Beeb's refusal to cut off Radio 4's transmitter which, as it continued several hours after programmes had ended, was intertering with the Geronimo

frequency.

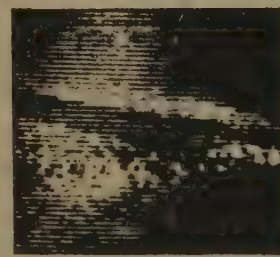
While jam bespattered the august portals of the mother of communications, John Cordaux, Controller of Radio Humber-side, turned up to a meeting at the Beeb. When he saw 'these bums defacing the front of my office, and I told them they were bums, when all of a sudden the biggest bum of them all (Everitt) came and smeared all this bloody jam all over my face — I mean...what would you do?'

Before any further action could be taken, up drive the law and at once they bust Nolan and Everitt for 'acting in a manner likely to cause a breach of the peace'. End of event, start of Fleet Street probing.

One point: where was Tony Secunda, the man who, in a recent interview with Michael Bateman of the Sunday Times, took all the credit for the creation of Radio Geronimo, which in fact, he merely backs. Well, according to Nolan, 'Tony didn't want to get involved because he is Ringmaker Management, which has product that he would want to have played on the BBC. If he did get involved, it would imperil his chances of getting this done.'

Says Secunda himself: 'It needed a mover, someone who could handle bail scenes and a lawyer.'

Or, in the words of the immortal L Bruce — 'I do business with these assholes!'



Die Nigger Die

Rap Brown
(Allison and Busby)
If you want to know what it's like to fight for every breath of air you inhale, read 'Die Nigger Die.'

The message of this book is NO COMPROMISE. No compromise with the White 'Liberals'—tomorrow's Brutus? Or with our own home-baked Niggers.

The black MAN is a living miracle. A big healthy living example of SURVIVAL. Rap Brown shows he survived, mind intact, illuminated, washed sparkling black in the river of blood—BLACK BLOOD—called Amerika.

Concerning the Spiritual in Art

wassily kandinsky
wassily kandinsky
wassily kandinsky
wassily kandinsky
wassily kandinsky
wassily kandinsky

-jd
[Suggested by Sam Bercholz]

At different points along the road are the different arts, each saying what it is best able to say, by methods peculiarly its own. Despite differences, or perhaps even because of them, the various arts have never been closer to each other than in this recent hour of spiritual crisis.

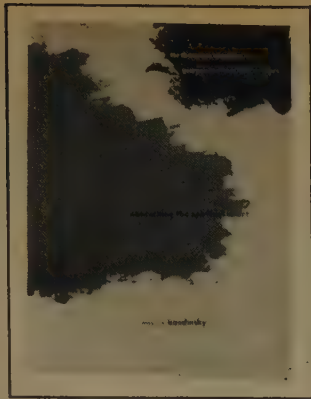
In each expression is the seed of an effort toward the non-representational, abstract and internal structure. Consciously or unconsciously they are obeying Socrates' advice: "Know thyself." Consciously or unconsciously, artists are studying and investigating their material, weighing the spiritual value of those elements with which it is their privilege to work.

The natural result of this work is a comparison of the elements of one art with those of another. Music is found to be the best teacher. For some centuries, with few exceptions, music has been the art which has devoted itself not to the reproduction of natural phenomena, but to the expression of the artist's soul and to the creation of an autonomous life of musical sound.

A painter who finds no satisfaction in mere representation, however artistic, in his longing to express his internal life, cannot but envy the ease with which music, the least material of the arts today, achieves this end. He naturally seeks to apply the means of music to his own art. And from this results that modern desire for rhythm in painting, for mathematical, abstract construction for repeated notes of color, for setting color in motion, and so on.



Above: Le 19 Fêchelle a frôlé le firmament, Miro. Below: Impressions (1951), Kandinsky



Concerning the Spiritual in Art
Wassily Kandinsky
1947, 70; 91 pp.

\$3.00 postpaid

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New York, N.Y. 10021

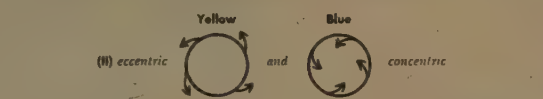
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First pair of antitheses e and b (internal structure acting on the spirit)

a. warm cold
yellow blue = First antithesis

Two movements:

(I) horizontal
Towards the spectator (bodily) ← → Away from the spectator (spiritual)



b. light dark
white black = Second antithesis

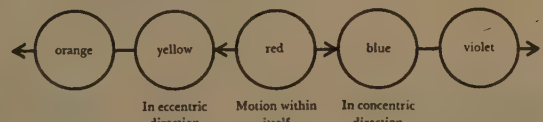
Two movements:

(I) movement of resistance
Eternal resistance, yet potentiality (birth) White Black Complete non-resistance, devoid of potentiality (death)
(II) eccentric and concentric, as in the case of yellow and blue, but more rigid

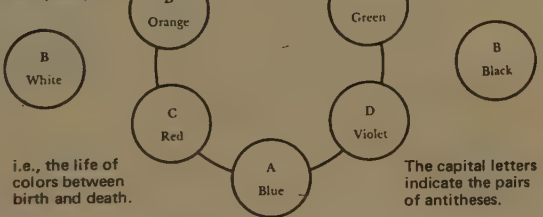
d. Orange Violet = Fourth antithesis

Arise out of the first antithesis from:

- Active element of the yellow in red = Orange
- Passive element of the blue in red = Violet



The antitheses as a circle between two poles,



i.e., the life of colors between birth and death.

The capital letters indicate the pairs of antitheses.

The Art of Color

"If you, unknowing, are able to create masterpieces in color, then unknowledge is your way. But if you are unable to create masterpieces out of your unknowledge, then you ought to look for knowledge."

The same goes for seeing masterpieces. This beautifully made book is more than a text—it is a powerful tool that can help you realize the physical act of seeing as a creative act. A way to open your mind and eyes and make the connections to the world more direct and immediate. The plates are so good that there is tangible physical pleasure in seeing them. Worth the giant price if you work with color at all—worth at least a trip to the library if you don't.

[Reviewed by Terri Gunesch]

A businessman was entertaining a party at dinner. The arriving guests were greeted by the host from the kitchen, and all were laden with good things, the host flooded the room with red light. The meat looked rare and the spinach turned black and the potatoes, which guests had recovered from their astorism, changed to blue, the roast assumed the color of claret into castor oil and the company, of the more delicate ladies hastily rose to the table could think of eating, though all present change in the color of the lighting. The white lights on again, and soon the good were restored. Who can doubt that color influences upon us, whether we are aware of it.

Accordingly, gardeners are daily concerned with problems of form and color. They observe the shapes and proportions, and the conditions of light and shade must be chosen for plantings are to produce hoped-for effects. One's favorite species and colors are chosen to produce hoped-for effects. One's favorite species and colors are chosen to produce hoped-for effects. One's favorite species and colors are chosen to produce hoped-for effects.



On the surface of the sphere, we draw six equally spaced parallel circles, forming seven zones. Perpendicular to these zones, we draw 12 meridians from pole to pole. On the equatorial zone, in the 12 uniform quadrilaterals obtained, we place the pure colors of our 12-hue color circle. The two polar zones are occupied by white at the top and black at the bottom. In the two zones between white and the equatorial zone, we interpolate two evenly spaced tints of each hue.

A work of art is born of the artist in a mysterious and secret way. Detached from him it acquires autonomous life, becomes an entity. Nor is its existence casual and inconsequent; it has a definite and purposeful strength, alike in its material and spiritual life. It exists and has power to create spiritual atmosphere; and from this internal standpoint alone can one judge whether it is a good work of art or bad. If its form is "poor," it is too weak to call forth spiritual vibration. Likewise a picture is not necessarily "well painted" if it possesses the "values" of which the French so constantly speak. It is only well painted if its spiritual value is completed and satisfying. "Good drawing" is drawing that cannot be altered without destruction of this inner value, quite irrespective of its correctness as anatomy, botany or any other science. This is not a question of a violation of natural form, but of the need of the artist for such a form. Similarly, colors are not used because they are true to nature but because they are necessary to the particular picture. The artist is not only justified in using, but is under a moral obligation to use, only those forms which fulfill his own need. Absolute freedom from anatomy or anything else of the kind must be given to the artist in his choice of means. Such spiritual freedom is as necessary in art as it is in life.

But blind following of scientific precept is less blameworthy than its blind and purposeless rejection. At least the former produces an imitation of material objects which may have some use. The latter is an artistic fraud, bringing confusion in its train. The former leaves the spiritual atmosphere empty; the latter poisons it.

The Necessity of Art

i first read this book when trying to make some great synthesis between my political ideals and the notion that art exists in some way for arts sake. i was decadent middleclass political revolutionary artist, great novelist, looking for some historical approach to art which would somehow give me a direction for basing my art in the bloodstream of the people, yet give me enough room to be arty.

well, this book didn't do that. instead it gave me a nice original systems approach to the question of how art and society come together and feed off one another. ernst fischer is an austrian marxist, a critic, a poet, and his book like art, stands beyond all those qualifications.

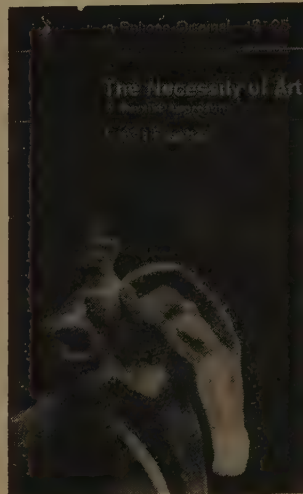
-jd

The Necessity of Art: A Marxist Approach
Ernst Fischer
1959, 63; 234pp.

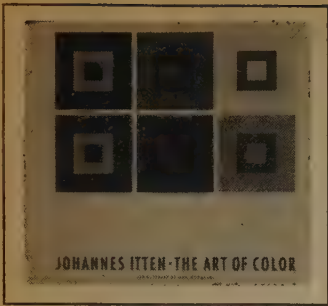
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The sorcerer in the poem has a profound sense a reputation for his magic power entered the young class society that the artist and the priest, the scientist, and the philosopher and worship was only discarded altogether. The artist remained a reputation was not expected to be in his affairs; his personality his ability to echo an event and ideas of his function was impermanent had been earlier. The meaning of events to process, the necessity development, to solve the relationships between man and his city, his class, and from the security of labour and class conflict fragmented individual existence; to guide the personal into the universal.



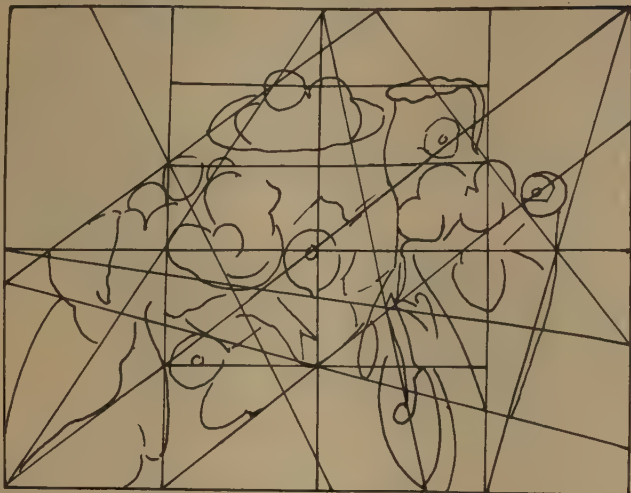
The Art of Color
Johannes Itten
1961, 69; 155pp.

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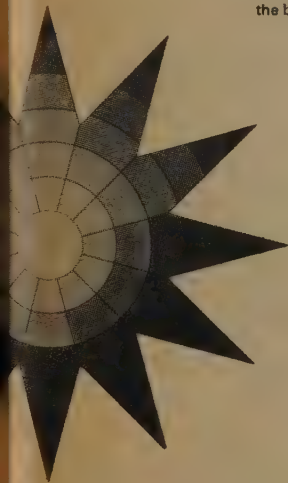
ladies and gentlemen
by delicious smells
rily anticipating the
out the table,
ne apartment with
zing enough, but the
e bright red. Before the
ent, the red light
ect of putrefaction and
lost their appetite at
d on, transforming the
iving cadavers, some
left the room. No one
ew it was only a
st laughingly turned the
pirits of the gathering
evert profound
of them or not?



Outline sketch, *Apples and Oranges*, Paul Cézanne,

The outline sketch shows salient features of the composition—subdivision of area, spatial directions, contrast of forms and their distribution over the surface. Relationships of accent points and lines are indicated by vertical, horizontal and diagonal lines.

The upward diverging main lines of the middle picture are interesting. They run contrary to a "normal" perspective, where the lines of a picture converge upon a vanishing point. The two infinite directions are opposed by two pairs of lines intersecting at the upper margin of the picture. Thus the beholder is compelled to concentrate upon the subject.



Yellow is the most light-giving of all hues. It loses this trait the moment we shade it with gray, black or violet. Yellow is, as it were, a denser, material white. The further this yellowed light is drawn into the denseness of matter, of opacity, the more it is assimilated to yellow-orange, orange and red-orange. Our red is the stopping point of yellow, with which it is not visibly tinged. In the center of the yellow-to-red band, we have orange, as the strongest and most concentrated interpenetration of light and matter. Golden yellow suggests the highest sublimation of matter by the power of light, impalpably radiant, lacking transparency, but weightless as a pure vibration. Gold was formerly much used in painting. It signifies luminous, light-emitting matter. The golden domes of Byzantine mosaics and the backgrounds of the paintings of early masters were symbols of the beyond, the marvelous, the kingdom of sun and light. The golden aura of saints is the token of their transfiguration. The attainment of this state was conceived as an envelopment by light. This heavenly light could not be symbolized except by gold.

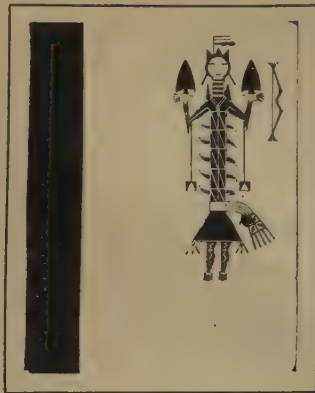
the tribal society was in the most
ative, a servant of the collective, and
risk of being put to death if he
the collective's expectations. In the
er's role was shared between the
to be joined by the doctor, the
er. The intimate bond between art
gradually loosened, eventually to be
ven after this had happened, the
ative or spokesman of society. He
tune his public with his own private
irrelevant, and was judged only by
ct common experience, the great
le, his class and his age. This social
unchallengeable, just as the sorcerer's
is task was to expound the profound
low-men, to make plain to them the
the rules of social and historical
hem the riddle of the essential relation-
ure and man and society. His duty was
ess and life-awareness of the people of
tion; to liberate men, as they emerged
itive collective into a world of division of
om the anxieties of an ambiguous,
nd from the dread of an insecure
al life back into collective life, the
to restore the lost unity of man.

It is essential to distinguish between music the sole purpose of which is to produce a uniform and deliberate effect, thus stimulating an assembly of people to collective action of an intended kind, and music whose meaning is, in itself, expressing feelings, ideas, sensations, or experiences, and which, far from welding people into a homogeneous mass with identical reactions, allows free play to individual, subjective associations. Sacred music in the early Middle Ages fell into the first category, so that few may say it had an 'objective' character, in contrast to the 'subjective', expressive character of secular music whose rise coincided with that of the bourgeoisie. If we examine the long and contradictory process of the secularization of music we are bound to admit that music is an eminently social phenomenon: that, although it consists of organized sounds, the very organization of those sounds corresponds to the organization of society at a particular time. The secularization of music, starting with the troubadours and the great heretical movements—i.e., with the incipient opposition of the knights and burghers—spread gradually to sacred music itself, so that religious music eventually became worldly. Old church music had been inseparably tied to the church; it received its 'content' from the liturgy and served, with severe and impersonal magnificence, not the listener's pleasure but his subjugation, forcing him to identify himself, kneeling, with the divine cause.

*** The Eagle, The Jaguar, and the Serpent**

i've had this book out of the library for about four years now, and haven't read the text yet, got my money's worth out of the illustrations.

—jd



The Eagle, the Jaguar, and the Serpent
Indian Art of the Americas
Miguel Covarrubias
1954; 314 pp.

\$20.00 postpaid

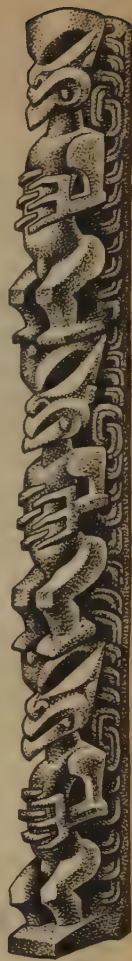
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Among hunting tribes there exists a custom according to which, before the men set out for the hunt, the women must dance and create an atmosphere of sexual excitement; the hunters, however, may not have intercourse with the women at this time but must satisfy their sexual excitement by killing animals. Frazer reports that the Nutka Sound Indians were compelled to refrain from all sexual intercourse during the week of the great whale hunt. A chief who failed to catch a whale was called to account by his tribesmen for having broken the chastity rule. The identification of women with the prey is partly connected with the beginnings of the sex struggle, which may be described as the first class struggle of history; partly, however, its cause goes back to the ancient way of seeing all similar things as identical. Bachofen points out that when prehistoric hunters had sexual intercourse with their women, they would stick a spear into the ground outside their hunt or cave, this spear being the symbol of the phallus.

[The Necessity of Art]



Embodiments of Mind

I'm not competent to review this book. I can recognize McCulloch's wisdom and humor. I can report his high standing as an Old One in the field of brain research. I can assert I've revelled in some of his insights. But I can't tell you how far he takes us toward full accountability in how nerve nets yield mind, except that he makes the question appear answerable and worth answering.

-SB



[Suggested by Milton E. Boyd]

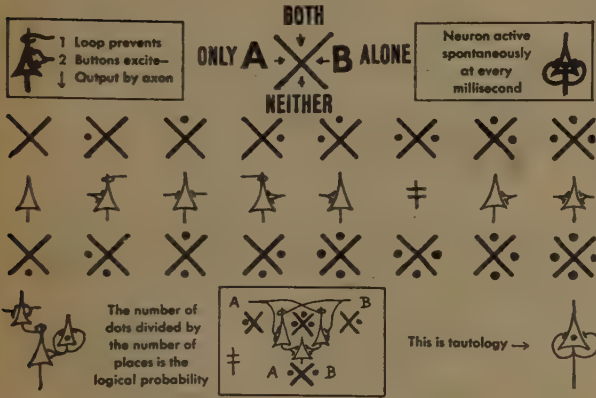
Embodiments of Mind
Warren S. McCulloch
1965, 70; 402pp.

\$2.95 postpaid

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The MIT Press
50 Ames Street
Cambridge, Massachusetts 02139

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Modern evidence indicates that all our acquired ideas, or learned generalizations and specifications, are carried on for nearly half an hour by regenerative activity, of which there is beginning to be some electrical evidence. If this activity is interrupted during that time, no memory remains. From the evidence to date it seems that if the process had not been interrupted, and if one looks at the appropriate neurons half an hour later, one finds that there is a great rise in ribonucleic acid, and protein synthesis is under way. So, while we do not yet know how or where this building material will be distributed, we may see nature using the same trick as in the immune reactions.

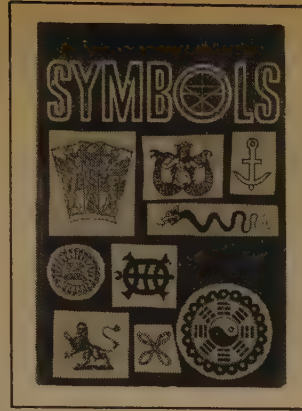


A Dictionary of Symbols

*the serpent bites its tail,
the orphean egg is scrambled
by a carnivorous mirror,
the brotherhood of the rosy cross...
words are rarely either singular
or uniform in meaning,
so one either lives long enough
to sort out the symbolism
or uses a dictionary.
This dictionary could be read
from cover to cover.*

-jd

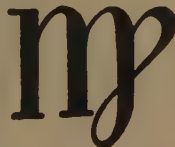
[Suggested by Sam Bercholz]



A Dictionary of Symbols
J.E. Cirlot
1962; 400pp.

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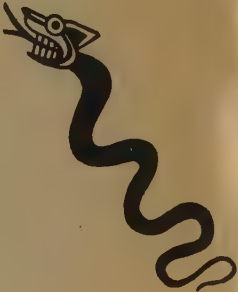
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BELLY The interior of the belly is invariably equated symbolically with the alchemic laboratory, or, in other words, with the place where transmutations are effected. Since these metamorphoses are entirely of a natural order, the belly-laboratory becomes, in a sense, the antithesis to the brain.

RAIN Rain has a primary and obvious symbolism as a fertilizing agent, and is related to the general symbolism of life and water. Apart from this, but for the same reason, it signifies purification, not only because of the value of water as the "universal substance"—as the mediating agent between the non-formal or gaseous and the formal or solid, an aspect which is common to all symbolic traditions—but also because of the fact that rainwater falls from heaven. Hence it is also cognate with light. This explains why, in many mythologies, rain is regarded as a symbol of the "spiritual influences" of heaven descending upon earth. In alchemy, rain symbolizes condensation or alification—further proof that, for the alchemists, water and light were of the same symbolic family.

TOAD The inverse and infernal aspect of the frog-symbol; that is to say, the symbolic significance is the same though in a negative sense. Or, as the traditional language of esoteric thought puts it: "There are also certain animals whose mission it is to break up the astral light by a process of absorption peculiar to them. There is something fascinating about their gaze: they are the toad and the basilisk."



The Art of Memory

Memory theater. The orderliness of architecture meets the vividness of drama; with these tools feats of memory may be performed. This unusual book traces the original memory techniques of the ancient Greek bards through Cicero into the mainstream of hermetic tradition and Raymond Lull, Giordano Bruno, and Robert Fludd on into the design of the Globe Theater. The technology of memory is neglected now, replaced by elaborate notation systems—"freeing" us perhaps too far from our knowledge.

-SB



The Art of Memory
Frances A. Yates
1966; 400pp.

\$8.95 postpaid

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The University of Chicago Press
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Chicago, Illinois 60637

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5b Images to be used in the Abbey Memory System
From Johannes Romberch,
*Congestorium Artificiose
Memorie*, ed. of Venice, 1533

The subject of this book will be unfamiliar to most readers. Few people know that the Greeks, who invented many arts, invented an art of memory which, like their other arts, was passed on to Rome whence it descended in the European tradition. This art seeks to memorise through a technique of impressing 'places' and 'images' on memory. It has usually been classed as 'Mnemonotechnics', which in modern times seems a rather unimportant branch of human activity. But in the ages before printing a trained memory was vitally important; and the manipulation of images in memory must always to some extent involve the psyche as a whole. . . Mnemosyne, said the Greeks, is the mother of the Muses; the history of the training of this most fundamental and elusive of human powers will plunge us into deep waters.

Who is that man moving slowly in the lonely building, stopping at intervals with an intent face? He is a rhetoric student forming a set of memory *loci*.

Images are as words by which we note the things we have to learn, so that as Cicero says, 'we use places as wax and images as letters'. It will be as well to quote his actual words:—"One must employ a large number of places which must be well-lighted, clearly set out in order, at moderate intervals apart, and images which are active, which are sharply defined, unusual, and which have the power of speedily encountering and penetrating the mind."

The memory tradition taught that everything is better remembered through an image, that these images should be striking and emotionally powerful, that they should be linked to one another associatively. Bruno tries to work memory systems based on these principles by linking them to the astrological system, using magically potent images, 'semi-mathematical' or magical places, and the associative orders of astrology. With this he mixes Lullist combinations and Cabalist magic!

Technicians of the Sacred

These are songs from the center, from the middle. (The cortex of humanity is convoluted, each fold patriotic, distinct on the outside, connected in the middle.) Superb editing by Rothenberg. A book to take with you.

-SB



Technicians of the Sacred
Jerome Rothenberg, ed.
1968; 521 pp.

\$3.95 postpaid

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or **WHOLE EARTH CATALOG**

the odor of death
I discern the odor of death
in front of my body

—Namebines
(Oibwa)

I am using my heart

(Oibwa)



shove

What are you saying to me & am I
in-my-senses?

(Ojibwa)

An Eskimo Poem against Death

I watched the white dogs of the dawn.

Primitive Means Complex

That there are no primitive languages is an axiom of contemporary linguistics where it turns its attention to the remote languages of the world. There are no half-formed languages, no underdeveloped or inferior languages. Everywhere a development has taken place into structures of great complexity. People who have failed to achieve the wheel will not have failed to invent & develop a highly wrought grammar. Hunters & gatherers innocent of all agriculture will have vocabularies that distinguish the things of their world down to the finest details. The language of snow among Eskimos is awesome. The aspect system of Hopi verbs can, by a flick of the tongue, make the most subtle kinds of distinction between different types of motion.

ALL LIVES, ALL DANCES, & ALL IS LOUD

The fish does . . . HIP
The bird does . . . VISS
The marmot does . . . GNAN

I throw myself to the left,
I turn myself to the right,
I act the fish,
Which darts in the water, which darts
Which twists about, which leaps—
All lives, all dances, & all is loud.

The fish does . . . HIP
The bird does . . . VISS
The marmot does . . . GNAN

(Gabon Pygmy)

There is no one; there are no people. It is desolate; it lies desolate. There is nothing edible. Misery abounds, misery emerges, misery spreads. There is no joy, no pleasure. It lies sprouting; herbs lie sprouting; nothing lies emerging; the earth is pressed down. All die of thirst. The grasses lie sprouting. Nothing lies cast about. There is hunger; all hunger. It is the home of hunger; there is death from hunger. All die of cold; there is freezing; there is trembling; there is the clattering, the chattering of teeth. There are cramps, the stiffening of the body, the constant stiffening, the stretching out prone.

(Aztec)

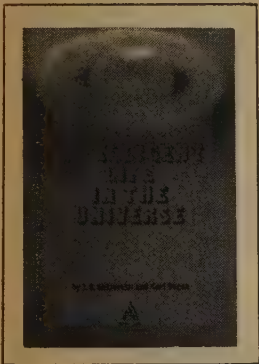


—Red Corn
(Osage)

Intelligent Life in the Universe

Methodically blow your mind. The information in this book, mutually massaged by the American and Soviet co-authors, proceeds from superb introductions to evolutionary astronomy and biology, through a complete presentation of recent discoveries of astronomy and space science, to brilliant speculation on the parameters of inter-civilization communication. It's the best general astronomy book of recent years but that's nothing next to its impact on all the biggest questions we know.

-SB



Intelligent Life in the Universe
I.S. Shklovskii and Carl Sagan
1966; 509pp.

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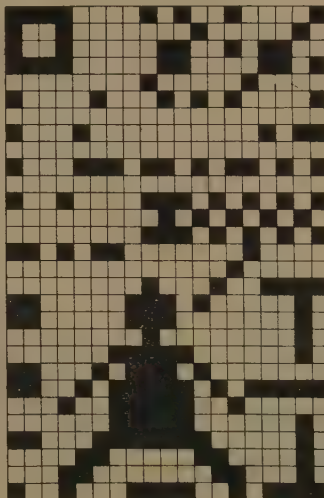
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FIGURE 30-1. A hypothetical interstellar message due to Frank Drake. The 551 zeros and ones are representations of the two varieties of signals contained in the message. The problem is to convert this sequence of 551 symbols into an intelligible message, knowing that there has been no previous communication between the transmitting and receiving civilizations.

1. Decode this
2. Into this

The existence of more than one universe is impossible, by definition.



3. Now decode this for physiological, astronomical, chemical, mathematical, social, historical and linguistic information.

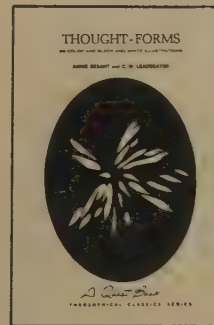
But how can a natural satellite have such a low density? The material of which it is made must have a certain amount of rigidity, so that cohesive forces will be stronger than the gravitational tidal forces of Mars, which will tend to disrupt the satellite. Such rigidity would ordinarily exclude densities below about 0.1 gm/cm³. Thus, only one possibility remains. Could Phobos be indeed rigid, on the outside—but hollow in the inside? A natural satellite cannot be a hollow object. Therefore, we are led to the possibility that Phobos—and possibly Deimos as well—may be artificial satellites of Mars.

So, by an interesting coincidence, the distances between the stars in interstellar space, relative to their diameters, are just about the same as the distances between the atoms and molecules in interstellar space, relative to their diameters. Interstellar space is as empty as a cubical building, 60 miles long, 60 miles wide, and 60 miles high, containing a single grain of sand.

Thought Forms

Well, for once I'm truly sorry our reviews are limited to illustrations in shades of grey. The power of these 58 extraordinary images is mostly in their color, unexpected, unearthly, delicious. The images were seen by the authors as clear representations of human states of mind. Pioneer work.

—SB
[Suggested by Jordan Belson]



Thought-Forms

Annie Besant and C. W. Leadbeater
1901, 1969; 77 pp.

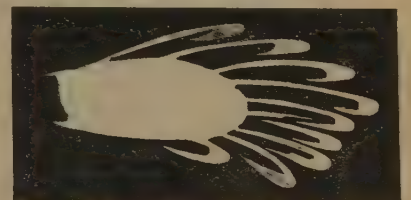
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or **WHOLE EARTH CATALOG**

Three general principles underlie the production of all thought-forms:

1. Quality of thought determines color.
2. Nature of thought determines form.
3. Definiteness of thought determines clearness of outline.



Thought form of high ambition.



Thought form of selfish ambition.

Guide to Filmmaking

Edward Pincus is a careful man, once a logician of sorts, now a cameraman. He's taught still work at the visual arts center, Harvard, and now is at the MIT film department.

His book is carefully done, thorough, nicely indexed, easier to use than the American cinematographers manual, and probably more useful to the student.

and it only costs a buck fifty.

its good, ed:

hi, jane.

[Reviewed by J. D. Smith.
Suggested by everybody]

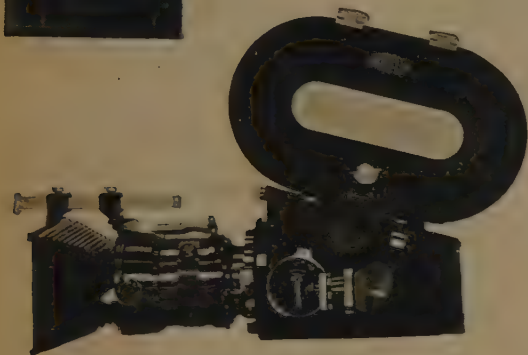


Guide to Filmmaking
Edward Pincus
1969; 256 pp.

\$1.50 postpaid

from:
The New American Library, Inc.
1301 Avenue of the Americas
New York, New York 10019

or WHOLE EARTH CATALOG



13. 16MM CAMERA—ARRIFLEX BL. Features similar to Arriflex M, but it is also self-blinded. Primarily used when sound is being recorded synchronously with the picture. (Arriflex Corp. of America)

Assistants

A Hollywood film often involves more than a hundred people on the production end. Many an underground film has but one person—the filmmaker. He must be jack-of-all-trades. He raises money for the filming (producer), he writes the script (scriptwriter), shoots the film (cameraman), directs the action (director), records the sound (soundman), carries the equipment (grip), lights the set (lighting technician), edits the film (editor)—to list only his major responsibilities. The question may arise: If or when does he need assistants?

With practice the cameraman will get an idea of what lighting situations demand what f/stop for a given film. It is easy to learn the standard outdoor light situations and what exposure they require.

Dealing with the film laboratory is possibly the most difficult and frustrating part of filmmaking. To avoid the usual lab problems, you must know what instructions to give the laboratory, what you can reasonably ask of the lab, and how to evaluate their work.

Much slipshod work and many errors are made by laboratories, but seldom do they equal the number of errors made by the filmmaker. Filmmakers tend to blame all technical photographic faults on the laboratory, and it is a rare laboratory that will admit that it has made the error.

Behrend's Book

One disadvantage of mail order is that you don't get to rap with the clerk and find out how to use the thing you're buying. That disadvantage is somewhat overcome in this catalog of film equipment (sales and rental). They explain matters more than is usual with remote merchants.

—SB

Behrend's Book
1969; 108 pp.

free

from:
Behrend's Incorporated
161 East Grand Avenue
Chicago, Illinois 60611



Moving one step and several hundred dollars up, we come to the production level. This camera is best typified by the Arriflex and Eclair. Both have registration pin-locks to assure rock-steady image quality. They are widely adaptable, by means of accessories, to cope with varying assignments.

In cameras of this type you will always find electric motor drives, usually interchangeable, to allow an extraordinary range of speeds and applications.

Also, cameras of this type have interchangeable magazines, so the film maker can shoot in the emulsion he chooses, switching as the need occurs, without inconvenience.

The Film Director As Superstar

If you've always hated Pauline Kael anyway and you've been mildly freaked because your 5 yr old kid sister just completed her 3rd on-the-street-every-inch-true-to-life documentary, then you will find comfort as well as real hope between these covers. This is one of those rare books on film that actually comes out and says what up till now you felt only you and Godard understood: that Film is Revolution not A Wave and its credo is the novelty of just going out and doing it. Now that we have been amply and repeatedly assured that we are on the threshold of a technological and aesthetic revolution in movies which will inevitably restructure human consciousness and understanding, this book says that the new sensibility obviously would be awfully nice in 70mm Panavision but that it will work in Super 8 too. Which is just another way of saying, Hey, remember 2001 is probably the most awesome underground movie ever made (\$10,500,000) before, lean and crazed, you sell your soul for a jr. apprenticeship on Mary Poppins. The 16 interviews that follow are a cross-section of independent directors—all of whom are just as interested in finding a new life style as a new film style. They are all, in one way or another, outsiders from Jim McBride (Greetings) whose \$2500 1st film still hadn't been shown theatrically 2 yrs. after he made it, to Roman Polanski who says definitely that he's not obsessed with the bizarre and that his next film is going to be about the Donner Pass Cannibals, to Andy Warhol who says that he's still learning how to use a camera and that they haven't really made a "movie" yet. The book is not a defense of cinema vs. movies nor does it go through the theoretic/aesthetic trauma of The Underground vs. Hollywood. What it says is that personal films are not sprung full-blown from the head of the inspired amateur with his 16mm Arriflex and Nagra tape recorder slung over his shoulder.

[Reviewed by Barbara DeZonia]

I don't think that it is possible for a man to spend a number of hours discussing himself and his work and his life without revealing a kind of personality profile . . . one man's evasiveness can be as eloquent as another man's candor."

A director's job in this period of filmmaking—and I know this may change as it has in the past—is to be an absolute dictator and produce a personal vision on a subject that he has chosen. He is paid too much because he has that responsibility, but what the people are buying is that personal vision."

[Lester]

P. Yes. The older I grow, the more I value simplicity. The more difficult it seems to me to make a simple film. I want my film to be done so the people who see it have the impression it was done without any effort. But, of course, there is a lot of effort behind it, a lot of struggle. And as for realism, the only way to seduce people into believing you—whether they want to or not—is to take painstaking care with the details of your film, to make it accurate. Stoppiness destroys emotional impact.

[Roman Polanski]

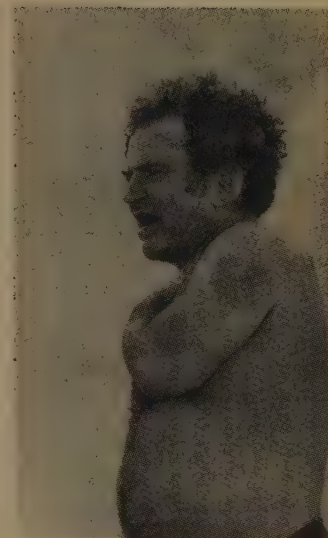


The Film Director as Superstar
Joseph Gelmis

\$3.50 postpaid

from:
Doubleday & Co., Inc.
277 Park Avenue
New York, New York 10017

or WHOLE EARTH CATALOG



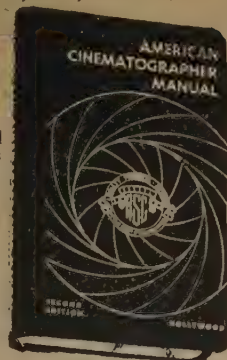
Everybody's looking for young talented directors. But what they all do is: they'll take you, a young talented director, and take a young talented writer, and a young talented producer and they'll give you young talented property about young talented people and they'll put you all together and you'll make a young talented film." So they've called me up and said, "We're interested in you." And I say, "Well, I'm interested in doing this movie. I'll send you a script." And they say, "Well, we've got this famous book," or something like that. So I say, "Forget it."

[Jim McBride]

American Cinematographer Manual

Indispensable data book, used by American cinematographers. Expensive, because it is absolutely comprehensive, up to date, from Hollywood, and has no competitors.

SB



American Cinematographer Manual
Arthur C. Miller, Walter Strenge, editors
newest edition 1969; approx. 600 pp.

\$15.00 postpaid

from:
The American Cinematographer Manual
P. O. Box 2230
Hollywood, California 90028

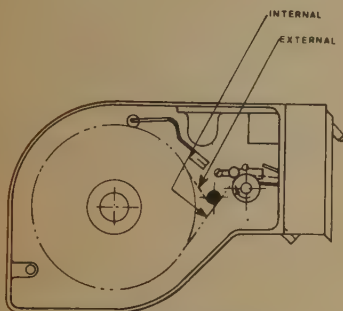
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CAMERA SPEED COMPENSATOR
EXPOSURE INCREASE AND DECREASE
ABOVE AND BELOW NORMAL 24 F.P.S.

(The Factor for Above Normal Speeds can be used with both the Filter Factor Compensator and the ASA Exposure Index Reduction Tables)

ABOVE NORMAL SPEED		
FRAMES PER SECOND	FACTOR	STOPS INCREASE
24	0	0
32	1.5	1/2
48	2	1
72	3	1 1/2
96	4	2
120	5	2 1/4
200	8	3
240	10	3 1/4
400	16	4
500	21	4 1/4

BELOW NORMAL SPEED		
FRAMES PER SECOND	FACTOR	STOPS DECREASE
24	0	0
16	1.5	1/2
12	2	1
8	3	1 1/2
6	4	2
4	6	2 1/2
2	12	3 1/2



**16mm ECLAIR NPR
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FOOTAGE OBTAINED AT VARIOUS CAMERA SPEEDS

SEC-ONDS	1	2	4	8	12	16	20	22	24	32	48	64	96	120	128
5	1/4	1/2	1	2	3	4	5	6	8	12	16	24	30	32	
10	1/4	1/2	1	2	3	4	5	6	8	12	16	24	30	32	
15	1/4	1/2	1	2	3	4	5	6	8	12	16	24	30	32	
20	1/4	1/2	1	2	3	4	5	6	8	12	16	24	30	32	
30	1/4	1/2	1	2	3	4	5	6	8	12	16	24	30	32	
60	1/4	1/2	1	2	3	4	5	6	8	12	16	24	30	32	

1 Foot	20 Frames
1	1
2	2
4	4
8	8
12	12
16	16
20	20
24	24
30	30
36	36
48	48
60	60
72	72
90	90
96	96
184	184
192	192

1/2 Foot	16 Frames
1	1
2	2
4	4
8	8
12	12
16	16
20	20
24	24
30	30
36	36
48	48
60	60
72	72
90	90
96	96
184	184
192	192

2/5 Foot	8 Frames
1	1
2	2
4	4
8	8
12	12
16	16
20	20
24	24
30	30
36	36
48	48
60	60
72	72
90	90
96	96
184	184
192	192

3/5 Foot	8 Frames
1	1
2	2
4	4
8	8
12	12
16	16
20	20
24	24
30	30
36	36
48	48
60	60
72	72
90	90
96	96
184	184
192	192

American Cinematographer

Accurate, specific information on what's new in equipment, techniques, standards, and the attitudes of technicians using them. Also gossip and news about who's doing what where. Covers all aspects of professional filmmaking from Hollywood Super Panavision 70mm to 8 mm educational loops.

The ads, fully as important as the text, are mouthwatering for those with an appetite for Eclairs and such.

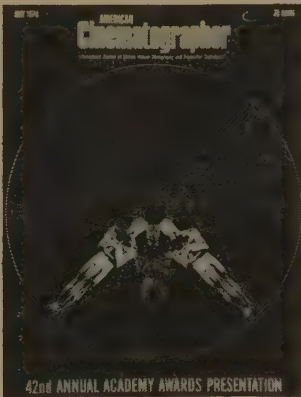
If you read it regularly you'll never need Baddeley—you'll know how it's really done. Often the information is directly and simply usable; sometimes it stimulates visions of the super-cinema of the future. When in school I consulted back issues for a psychology paper on perception. The articles are really interesting and, best of all, there is no film criticism so you avoid all those negative emotions.

[Suggested by Gordon Ashby
Reviewed by Sandra Tcherepnin]

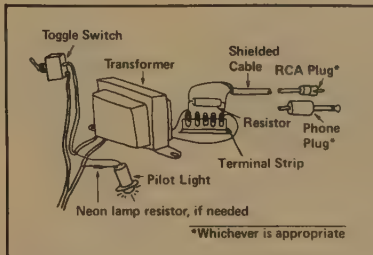
American Cinematographer

\$6.00 for one year (monthly)

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American Cinematographer
1782 North Orange Drive
Hollywood, California 90028



If you have been thinking of shooting your films with double-system sound, and if your camera has a synchronous motor, for about \$30.00 in parts, and a little labor, you can construct a signal generator that can be used with a number of tape recorders to permit the synchronism necessary for double-system work. Furthermore, the construction is so straightforward that even if you are absolutely unhandy with tools, the labor charges for constructing the gadget should be well within the budget of even the most cost-conscious producer.



THREE ARRI IIC Camera bodies with Matte box each \$2000.00. In excellent condition. Contact: F. Said, 8600 Sunset Blvd. Hollywood, 90069 Tel: 652-4800.

CINERAMA HS-35 Camera complete outfit. Like new condition. 30-280 F.P.S. for more information. Write or call: SIGNET ENGINEERING, 2869 Selby Avenue, Los Angeles, Ca 90064 Phone: (213) 247-2587.

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International Film Guide

Well, as it says right on the front, this is a "record size survey of film in 32 countries with at-a-glance guide to Festivals, films on 16mm, film books and magazines, shorts and animation, film schools and art houses." Hard to beat that except by the Saturday Review's comment: "eminently informative." Well, and then too it has lots of nice stills, in-depth articles on Anderson, Chabrol, Ichikawa, Pasolini, and Skolimowski, a world production survey with articles on new films from everywhere from Israel to Romania to Bulgaria, a list of all current film co-operatives and operating theatres around the world, and a review of all new magazines and other publications dealing with film, plus a list of film archives and film services... and all sorts of other stuff crammed in these fat little pages. Make friends with someone who reads sub-titles well and you'll be set no matter where in the world you are.

[Reviewed by Barbara DeZonia]

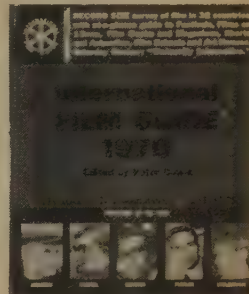
International Film Guide

Peter Cowie, editor
1970; 448 pp.

\$3.95 postpaid

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Forsgate Drive
Cranbury, New Jersey 08512

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F&B/CECO

a supply house for film equipment, rental and sales. the catalogs are best used for pricing, figuring production costs, and for good listings of equipment readily available.

-jd

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ECLAIR NPR 16 mm CAMERA
With 15 and 25 mm lenses, 12V constant speed motor with built-in sync generator, battery 1-400' magazine

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MUSIC

★ Kord

i can plunk an autoharp some, whistle a little, used to have a trumpet lip, but i'm tone theory blind. Kord is a new music theory practice magazine, for people who are trying to understand music while they are plunking and whistling. looks pretty useful.

-jd

[Suggested by Peter Sessions]

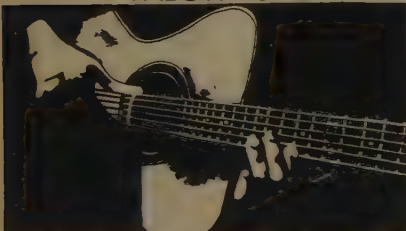


Kord
Eric Kriss, editor

\$2.00 four issue subscription

from:
Kord
213 Crescent Street
Northampton, Massachusetts 01060

THEORY & TECHNIQUE



Guitar Chord Fingerings

The fingerings of the major and minor triads in three, four, five and six voices are based on the fingering for augmented triads. An augmented triad contains three tones at intervals of the major third (two whole tones or four frets). There are four different augmented triads (neglecting enharmonic spelling):

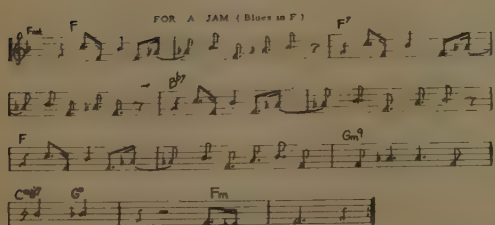
- 1) C-E-G#
- 2) C#-F-A
- 3) D-F#-A#
- 4) D#-G-B.

To produce a major triad, any one of the three tones is lowered one half-step (one fret). The lowered tone is the chord fifth of the major triad. For example, lowering G# to G natural in the augmented triad [C-E-G#] produces the major triad [C-E-G], or C major. "C" is the root, "E" is the chord third, and "G" is the chord fifth.

If the tone is raised instead of lowered, the result is the relative minor of the major triad obtained by lowering the tone. If the G# in the augmented triad [C-E-G#] is raised to an A natural, the minor triad [A-C-D], or A minor is formed. "A" is the root, "C" is the third, and "E" is the chord fifth. A minor is the relative minor of C major. Notice that the raised note is the root of the derivative triad.

-Peter Lynn Sessions

COMPOSITIONS



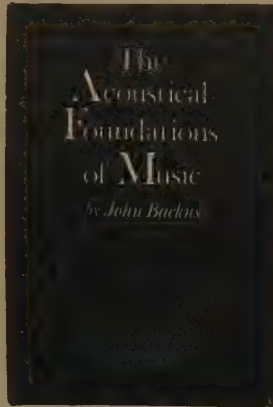
In future issues, KORD will be publishing original compositions of a varied nature. Submissions are welcomed. Preference will be given to previously unpublished work.

★ The Acoustical Foundations of Music

Here it is, folks! The hard-core treatment of the physics of music. You'll get the most out of this one if you enjoyed high-school physics. If you hated physics, skip this one and try Horns, Strings, and Harmony by Benade. You may end up with this one later.

Backus put everything into this book that he would like to cover in a college course (for musicians) but couldn't because there is too much of it for one semester. He likes to play with equations, and gives a lot of them, but I couldn't use them to compute the power output of a guitar string. Designers of instruments who want to start from the ground up should read at least parts of this book. A theoretical tool if you're into theory-building; I haven't had it long enough to see if it serves as a useful reference source.

[Reviewed by Peter Lynn Sessions]



The Acoustical Foundations of Music

John Backus
1969; 312pp.

\$7.95 postpaid

from:
W.W. Norton & Co., Inc.
55 Fifth Avenue
New York, New York 10003

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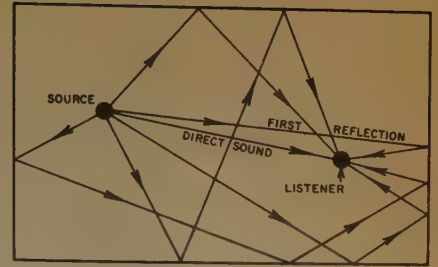


Fig. 1. Multiple reflections from the walls of a room of a single impulse produced by a sound source.

In order to study the science of music, it is necessary to learn some of the technical vocabulary of acoustics. This requires that we first define a number of technical acoustical terms so that we may use them properly and without ambiguity. However, acoustics is the study of systems that produce and propagate what we recognize as sound, and is based on the larger area of science called physics. We must therefore begin by learning some of the technical vocabulary of physics. The entire vocabulary of physics is quite extensive, but we will need to concern ourselves with only a small part of it; that part, however, will be quite indispensable.

With an instrument that measures sound pressure levels, measurements may be made of the levels by musical instruments produced under somewhat standard conditions: that is, at specified distances in surroundings where there are no reflections. Some recent measurements give average intensity levels over the playing ranges of many instruments. The strings and woodwinds, for example, give about 60 decibels at a distance of 10 meters when played fortissimo; the brass give about 15 decibels more. An intensity level of 60 decibels is an intensity of 10⁻⁶ watts per square meter; by using the inverse square law calculation illustrated in Ch. 3, we find this would be produced by a sound source power of 0.0013 watts, or 13 miliwatts.

The tremendous technological developments of the present century have greatly altered our social and economic environment. The field of music has not escaped the impact of this technology; developments in that area of the field of communications known as electronics have had a profound influence on the recording and reproducing of music and the production of musical sounds, and show portents of affecting the future creation and performance of music as well. A discussion of the status of present-day electronic and technological developments as they affect music may give some indication of the direction of future developments.

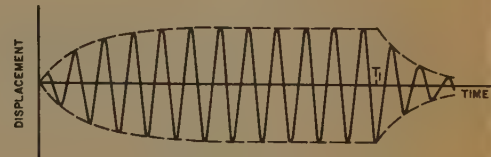


Fig. 4. Growth and decay of a vibration.

Banjo Parts

I thought you might be interested in hearing about a company that specializes in banjo parts.

Stewart-MacDonald Mfg. Co.
Box 900
Athens
Ohio 45701

They carry a full line of products, have a catalog, and operate entirely by mail. They also seem to give very fast service, and the quality of their products is very good. As they add new items, they publish supplements to their catalog which are apparently sent to everyone on the mailing list.

Stephen R. Monaghan

★ Harpsichord Kits and Supplies

long for the good old days, with velvet sleeves, the tinkle of cut glass, crystal chandeliers, stiff back chairs, tuffets? want to build something intricate, delicate, complicated? try building a harpsichord.

-jd

Harpsichord Information

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917 O Street Box 222
Lincoln, Nebraska 68508

★ H.L. Wild

good wood is getting scarce. it takes a good while to grow a mahogany tree. wild has fine selection of instrument maker's woods, and the plans, tools, and books to go along with them. stamped across the front of their catalog that came to us was, "Due to World Conditions, Prices Changed Without Notice."

i like that way of putting it.

-jd

Catalog free

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H.L. Wild Company
510 East 11th Street
New York, New York 10009

Face or Top. Purchase two pieces of the Best Imported Spruce your pocketbook can afford. This is the sounding Board of the Guitar. These come in Matched Pairs 1/8" by 8" by 20", and must be joined together to make a full top. We will mark each pair how they are to be glued together with the FINE grain always in the center.

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PLECTRUM BANJO NECKS

Already Carved Necks for 4 string Plectrum Banjo 27 inches long, 26-7/8" Scale, using a 19-3/8 in. Finger Board.
No. P 530 Maplewood Neck with \$6.50
No. O 531 Mahogany Neck Figured 7.50
No. O 532 Teakwood Neck Veneers 9.50
With each Neck we include enough Highly Figured Veneer to cover both sides of the Peg Head and Heel. Postage extra: \$1.50

Music Synthesizers

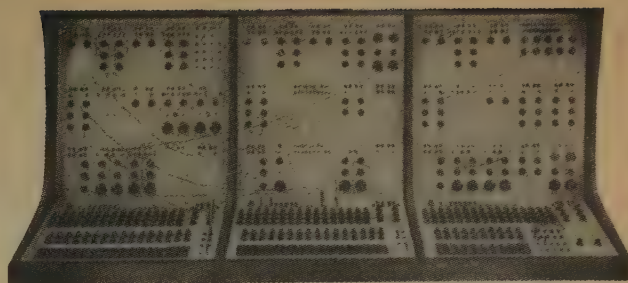
coming into california out of montana snow a couple of years ago the truck radio started picking up a strange, synchopated, alien, version of "cripple creek." sounded like some human metronome playing a banjo with a waawaa petal inside a boxcar. turned out to be a moog. seems like the synthesizer people should stay away from old standards like "don't step on mama's roses" and develop some sound that fits the tool.

-jd



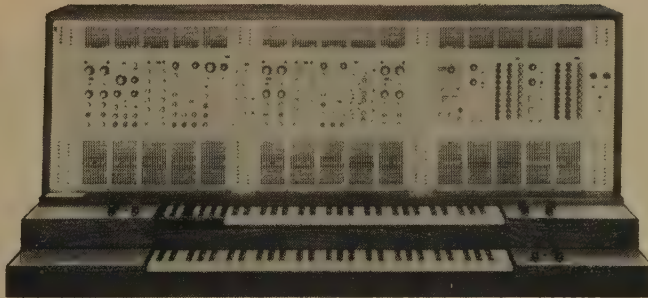
The Putney looks to be a more modest, self-contained unit, with a lower price range (around \$1000).
Write to:

Ionic Industries, Incorporated
128 James Street
Morristown, New Jersey 07960



Buchla, marketed by CBS, has a handy user's guide.
Write to:

CBS Musical Instruments
Columbia Broadcasting System, Inc.
1300 East Valencia
Fullerton, California 92631



ARP's range from \$3500 to \$8000 for a complete system.
Write to:

ARP Instrument Division, Tonos, Inc.
45 Kenneth Street
Newton Highlands, Massachusetts 02161



Moogs range from \$3500 to \$8000
Write to:
R. A. Moog Co.
Trumansburg, N.Y.

★ Synthesis

Dear Whole Earth People,

Concerning your question about the relative merits of synthesizers, I think it impossible to answer in less than several hours.

The January issue of a new quarterly entitled *Synthesis* will have articles on the five major synthesizers.

Synthesis is a forum for electronic music and bru-ha-ha beginning in January, 1971.

A small, free complimentary copy can be obtained by writing:

Synthesis
1315 Fourth Street
Minneapolis, Minnesota 55414

Peace, William A. Johnson
(Editor)

★ Melody Flute

Musical instruments are extremely satisfying tools. However, in most cases the cost for quality instruments is restrictive. The Melody Flute is an exception. For from \$1.00 to \$1.75 one receives a nickel plated, six holed instrument of fine tonal quality, and an instruction manual.

It is easy to learn and a lot of fun to play.

The Melody Flute Company also sells a complete line of recorders at very reasonable prices.

[Suggested and Reviewed by Winston Fowlkes]

No. 1—Metal—Made in Keys of B flat and C—Standard Pitch

Range over two octaves

Melody Flute

\$.75 to \$ 1.75
(information free)

from:
Melody Flute Company
126 Lafayette Avenue
Laurel, Maryland 20810

No. 0—Plastic Flute C with mouthpiece 50 cents—Book \$.25 total \$.75
No. 1—Metal Flute C with mouthpiece \$.75—Book \$.25 total \$1.00
No. 1—Metal Flute B flat with mouthpiece \$1.25—Book \$.25 total \$1.50
Total \$1.50
No. 2—Metal Flute B flat Professional Type \$1.50—Book \$.25
Total \$1.75

*Nickel Plated

One price—any quantity.

POSTAGE—Above prices include postage on orders amounting to \$5.00 or more. On smaller orders add \$.25 per order for mailing costs.

BOOK PRICES—Books alone—\$.25 each—Any quantity—Postage prepaid on orders amounting to \$1.00 or more. On smaller orders add 10 cents for mailing costs.

★ Dennis Dorogi Dulcimers

dave smith says you can't tell anything about dulcimers until you have played them. Sounds good to me. i never played dennis dorogi's dulcimers, but they look pretty, and the prices are about right for the good quality instruments.

-jd

[Suggested by Mrs. J.H. Supple]

Dennis Dorogi Dulcimers

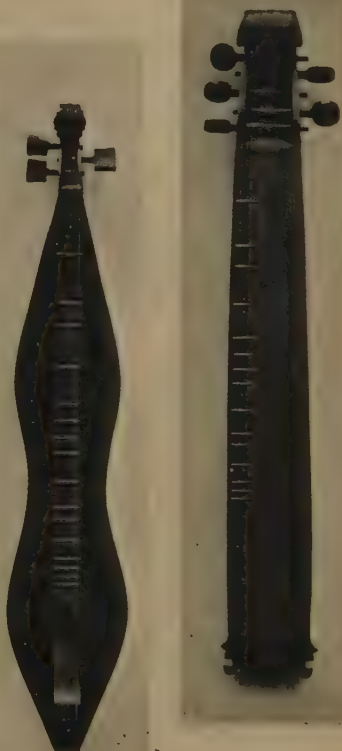
from \$70.00

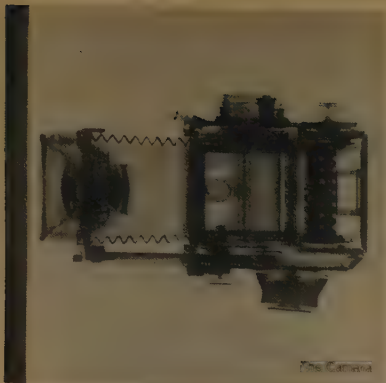
Catalog

free

from:
Dennis Dorogi
Ellicott Road
Brocton, New York 14716

Musical instruments have a beauty of form material, and embellishment that naturally appeals to me as a sculptor . . . I can't really say what first attracted me to dulcimers, the shape or the sound, or both at once. Just as different people are attracted to different art forms, and the same individuals will change with time and experience, I have found that a close experience with function has enhanced my initial appreciation of form, until now I enjoy a well-designed musical instrument as much as I do any other art object. To say this in more concrete terms, I have found that I like building instruments because it involves the visual, tactile, and auditory senses; and that playing them in turn involves and complicates these senses . . .





The Camera

Recently I enjoyed an airplane magazine in which all the articles were illustrated by the authors. It was so damn good. The pictures weren't glamorous eye candy; they were densely informative, and frank, and they were related thoroughly to the articles. Photography, including professional photography, is best in the hands of skilled amateurs. Better than words photography is a reality medium. No specialist elite should monopolize that kind of power.

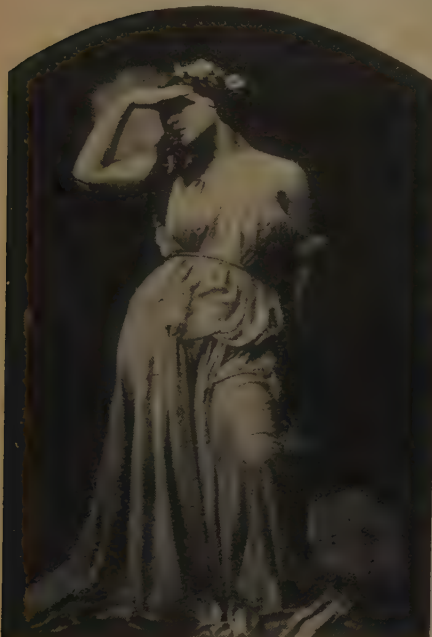
This book—the first in a series from Time-Life—covers both the rudiments of use and the history of cameras. It has some sensational pictures (and price to match) What I like best is its detailed excellent "Camera Buyer's Guide". I think it is the beginners camera book I've been looking for ever since we started the CATALOG.

—SB

The Camera
editors of Time-Life Books
1970; 236pp.

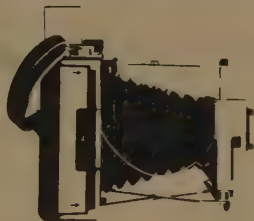
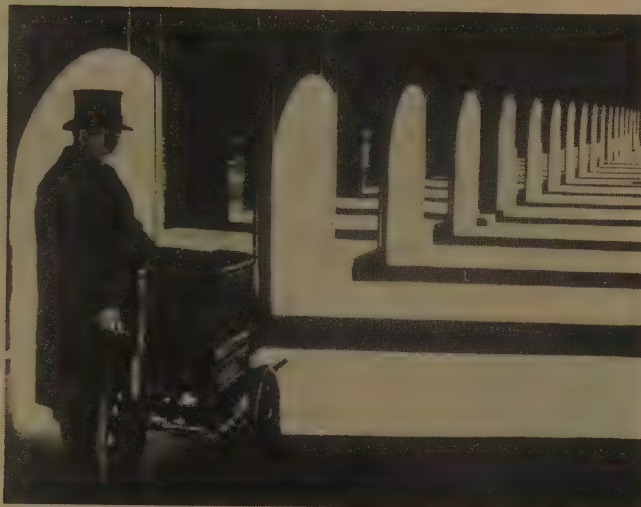
\$9.95 postpaid

from:
Morgan and Morgan
400 Walsh Avenue
Hastings-on-Hudson, New York 10706



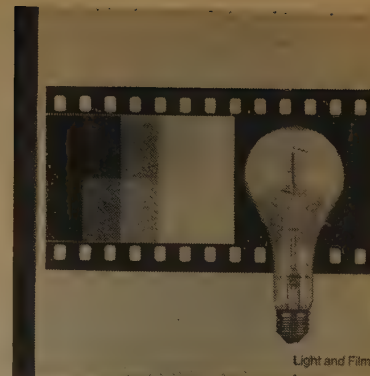
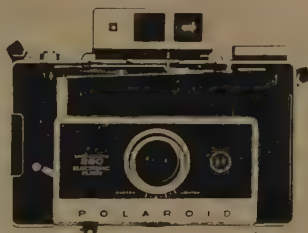
Standard Meters

There are two basic kinds of light meters: reflected-light meters that measure the light that reflects from an object and incident meters that gauge the light that falls on it.



Polaroid Land Cameras

The quickest and easiest way to get finished pictures is with the Polaroid Land camera, which uses a photographic process that bypasses the darkroom to produce prints directly—color pictures in a minute, black and white pictures in 10 or 15 seconds. Polaroid Land cameras are designed for Polaroid Land film and take no other. The ones listed here all have "electronic eye" exposure control linked to an electronic shutter and make 3 1/4 x 4 1/4 inch pictures in color or black and white (the less expensive "Swinger" models make black and white pictures only). Polaroid Land film can also be used in other cameras that can be fitted with special Polaroid Land backs. The more expensive the model the better its lens and the greater its array of features—a coupled rangefinder, a timer that signals when the picture is ready, a time exposure device, electronic flash (descriptions right).



Light and Film

second volume just came through. looks as good as the first.

—jd

Light and Film
editors of Time-Life Books
1970; 228pp.

\$9.95 postpaid

from:
Morgan & Morgan
400 Walsh Avenue
Hastings-on-Hudson, New York 10706



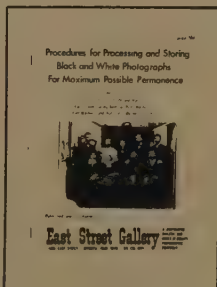
East Street Gallery

The East Street Gallery, a cooperative community located in Grinnell, Iowa. Photography, publishing and the making of photographic equipment provide the economic base of the community.

They put out an extremely honest and thorough as can be booklet . . . it contains the results of their tests, and organizes the scattered information relating to the processing and storing of pictures for maximum permanence . . . an issue neglected by too many photographers who otherwise care about that they are doing.

They also describe in detail their high cost, but very high quality and efficient film and print washers and timing device . . .

[Suggested & Reviewed by Will Endres]



Procedures for Processing and Storing Black and White Photographs for Maximum Possible Permanence.

\$.50 postpaid

from:
East Street Gallery
1408 East Street,
Grinnell, Iowa 50112

Making photographic films and prints for "maximum possible permanence", or archival processing as this procedure is often called, involves steps with which most photographers and lab men are not currently familiar. Very little has been written on the subject in the mass circulation photographic media, and museums and galleries have only recently shown much concern about photographic permanence. Most photographers, however, are familiar with the results of improper processing and storage of photographs. Old photo albums are usually excellent case studies of photographic fading, staining, and other forms of degradation.

Nearly all the negative filing devices now on the market are very destructive to silver based film emulsions. This is especially true of the common "kraft paper" and glassine sleeves. These negative containers contain excessive amounts of sulfur and other harmful chemicals. Also, many of these containers contain glue in the seams which over a period of time may cause severe damage to negatives. It may currently be assumed that no paper or glassine container is safe for long-term storage of negatives or prints.

Clear acetate sleeves are generally safe, though they may cause a strange type of "ferrotyping" on emulsions if excessive moisture is present. Probably the only satisfactory negative container currently on the market is that made by Print File, Inc., Box 100, Schenectady, New York 12304. These containers are made in various formats out of clear polyethylene and have the added advantage that you can contact print through them without removing the negatives from the sleeves. These are not yet available in most camera stores, so you should write the company for samples and a price sheet. Polyethylene bags are generally excellent to store prints and films in—many sizes are available from most grocery stores.

Expanded Cinema

stop the presses.

-jd



Expanded Cinema

Gene Youngblood
1970; 432 pp.

\$4.95 postpaid

from:
E. P. Dutton, Inc.
102 Park Avenue South
New York, New York 10003

or WHOLE EARTH CATALOG

It has taken more than seventy years for global man to come to terms with the cinematic medium, to liberate it from theatre and literature. We had to wait until our consciousness caught up with our technology. But although the new cinema is the first and only true cinematic language, it still is used as a recording instrument. The recorded subject, however, is not the objective external human condition but the filmmaker's consciousness, his perception and its process. If we've tolerated a certain absence of discipline, it has been in favor of a freedom through which new language hopefully would be developed. With a fusion of aesthetic sensibilities and technological innovation that language finally has been achieved. The new cinema has emerged as the only aesthetic language to match the environment in which we live.

The Tibetan Book of the Great Liberation

toward knowing the mind
(talking to yourself)
and the liberation of realization,
nirvana,
oneness with voidness,
together,
now,
and the evaporation of karma,
poof.

-jd

[Suggested by Sam Bercholz]



The Tibetan Book of the Great Liberation
W.Y. Evans-Wentz, editor
1969; 261 pp.

\$2.25 postpaid

from:
Oxford University Press
200 Madison Avenue
New York, New York 10016

or WHOLE EARTH CATALOG

In the process of meditating introspectively upon the aphoristic teachings concerning the One Mind, the disciple will inevitably come face to face with the age-old problem of what man is. He will intuitively ask himself, Why am I? What am I? Am I a something, a self, a soul, eternally separate and different from each of the countless myriads of similarly constituted beings I see round about me in various states of existence? Is the glamorous world of appearances real? Are all these inanimate objects and all these living, breathing creatures, in the midst of which I find myself, real? Or are they, as the Buddhas declare, no more than the content of a karmic mirage, the stuff composing the dreams of life?

When the truth begins to come from within, very feebly at first, like the consciousness of a man awakening from the torpor of a drugged sleep, or like the first traces of dawn coming forth in an eastern sky, the disciple will realize gradually that only by transcending the realm of separateness and attaining super-consciousness of the immutable at-one-ment of all things, organic and inorganic, can the age-old problem be solved. The more the disciple meditates upon what the self has in common with other selves, the more he will discover the impersonal self common to all selves. Hence he will reach the conclusion that if one and the same factor is the core of each individual's selfhood, no individual in its true essence had individuality. There would be nothing like my self; there would only be the Self.

The One Mind being verily of the Voidness and without any foundation, one's mind is, likewise, as vacuous as the sky. To know whether this be so or not, look within thine own mind.

Being of the Voidness, and thus not to be conceived as having beginning or ending, Self-Born Wisdom has in reality been shining forever. Like the Sun's essentiality, itself unborn. To know whether this be so or not, look within thine own mind.

Being merely a flux of instability like the air of the firmament, objective appearances are without power to fascinate and fetter. To know whether this be so or not, look within thine own mind.

All appearances are verily one's own concepts, self-conceived in the mind, like reflections seen in a mirror. To know whether this be so or not, look within thine own mind.

Arising of themselves and being naturally free like the clouds in the sky, all external appearances verily fade away into their own respective places. To know whether this be so or not, look within thine own mind.

The Realization and the Great Liberation

Nothing save mind is conceivable. Mind, when uninhibited, conceives all that comes into existence. That which comes into existence is like the wave of an ocean. The state of mind transcendent over all dualities brings Liberation. It matters not what name may carelessly be applied to mind; truly mind is one, and apart from mind there is naught else. That Unique One Mind is foundationless and rootless. There is nothing else to be realized. The Non-Created is the Non-Visible.

By knowing the invisible Voidness and the Clear Light through not seeing them separately—there being no multiplicity in the Voidness—one's own clear mind may be known, yet the Thatness itself is not knowable.

Mind is beyond nature, but is experienced in bodily forms. The realization of the One Mind constitutes the All-Deliverance. Without mastery of the mental processes there can be no realization.

Similarly, although sesame seed is the source of oil, and milk the source of butter, not until the seed be pressed and the milk churned do the oil and butter appear.

Although sentient beings are of the Buddha essence itself, not until they realize this can they attain Nirvana.

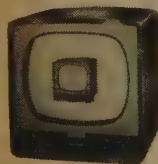
Even a cowherd [or an illiterate person] may by realization attain Liberation.



Radical Software

We get letters—saying how encouraging, enspiriting, possibility-expanding the Whole Earth Catalog is—embarrassing amount of gratitude in these letters. Well, it's how I feel about Radical Software; A double handful of fast young heads have entered do-it-yourself TV and gotten acquainted with each other, and now started a tabloid of mutual read-out, aiding each other's scuffle for equipment, audience, comprehension, concepts, values. They sense power (95% of U.S. homes have TV) and unexplored territory (broadcast TV still scarcely seems to know what it is) and the hard cider of dwelling on evolution's imploding edge (maybe. [always maybe.]). In a way it's about time: we have head radio, head records, head books, magazines, newspapers, head movies; very little head TV. [Beware beware of controlling all your inputs lest ye become your own caricature.] These are TV heads, getting restless, with a fine access publication. I hope it stays solvent and publishing. High content goods.

-SB



Radical Software

\$1.25 per issue

from:
Raindance Corporation
24 East 22nd Street
New York, New York 10010

Blackwell's Books, England

Blackwell's Bookstore in Oxford, England, is a service which the Catalog should list. Their collection is probably the world's most comprehensive and they run a global service, providing lengthy, free, separate catalogs on about 25 subject areas, including children's books, books in other languages, science, literature, philosophy, religion, mathematics, etc. Their prices are significantly lower and they will not send a book which can be obtained more cheaply in America unless you so request. They will open an account for you, accept your personal check, and bill you semi-annually. They also buy up old libraries (occasionally famous ones, recently John Masfield's) and issue catalogs on second-hand books and first editions. They have a cable code BOOKS OXFORD and a code system for some catalogs which enables you to place an order with a minimum of cost in a hurry. The books arrive slowly but the catalogs keep coming in all year long and are a great delight themselves.

[Suggested and Reviewed by Larry Schwartz]

Catalog

free

from:
Blackwell's
Broad Street
Oxford, ENGLAND

METHODS OF PAYMENT

Orders and correspondence should, in every case, be sent direct to Oxford. The following addresses are for remittances only.

U.S.A. and American Account Area: by personal check in dollars (£1=\$2.40) sent to Blackwell's in Oxford; or to B.H. Blackwell, Ltd., P.O. Box 1452, Church Street Station, New York, New York 10008 (for their account with the Bankers Trust Co.).

Canada: by personal cheque in Canadian dollars (£=\$2.61) sent to Blackwell's, or to The Canadian Imperial Bank of Commerce, P.O. Box 6003, Montreal 3, P.Q., or by Bank Draft in sterling, or by Canadian Postal Money Order.

Prices given for Blackwell's in the Whole Earth Catalog do not include shipping.

The Crush of Television

"There are 60 million homes in the United States and over 95 percent of them are equipped with a television set. (More than 25 percent have two or more sets) In the average home the television is turned on some five hours forty-five minutes a day. The average male viewer, between his second and sixty-fifth year, will watch television for over 3000 entire days—roughly nine full years of his life. During the average weekday winter evening nearly half of the American people are to be found silently seated with fixed gaze upon a phosphorescent screen."

"Water systems engineers must build city water supply systems to accommodate the drop in water pressure occasioned by the toilet-flushing during television commercials.

Vic and I recorded a conversation between us using full body shots on a split screen. We were seated facing each other. A week later we played the tape back using slow motion and no sound. We both sat facing the screen imitating the kinetics of the other on the screen and verbalizing how we felt from going through those motions. It was extraordinary. Holding my head and rocking back and forth in imitation of Vic. "Yeah, I'm listening to what you're saying, Ryan, but I'm really getting ready to strike back." Following a diminutive hand gesture "Let me make it nice and small, Ryan, so that you can understand it." Vic was scoring on me in a similar way and we were laughing our heads off. What was even more extraordinary was when I woke up the next morning, I felt like I was wearing his body. That I had it on. I called up Vic and started telling him how I felt about the relation between his/my stomach and shoulders, stomach and head, torso and legs, etc. etc. Each time Vic confirmed I was right on. For the next few weeks I found I could recall this sense of his body when I wanted.

GUNS, KNIVES OR VIDEOTAPE* works this way. Two people, each with a portable pack and camera, face off fifteen feet apart. At a given signal they start "shooting" each other. Both roll tape continuously for five minutes. Then both tapes are played back simultaneously on two monitors set up side by side. The area should be large enough so that participants can move around. Variations are possible. Doubling up in teams of two, doing it in a mirrored room, setting up a third camera on a stationary tripod to catch the whole duel for playback with the participant's tapes.

*executed in Pontiac, Michigan

Industry and Craft

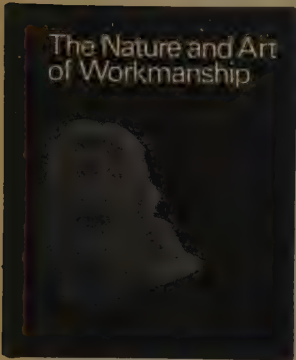
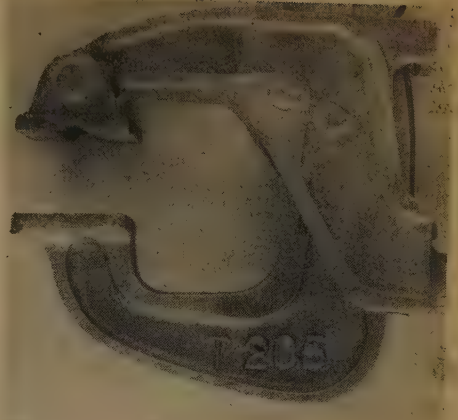
★ Nature and Art of Workmanship

Seems like just about everybody I know is making things lately—pots & dishes & clothes & bags & belts & blouses. I read in Newsweek or somewhere that this is the New Renaissance—Mebbe so. But it doesn't feel good to see a lot of home made things when they are also poorly made. Romanticizing the hand-made is a naive reaction to the problem of a machined-plastic environment. The Nature and Art of Workmanship is an attempt to define the aesthetics of craftsmanship in a classical scholarly mode. It has clear insight and sound criteria for judging the quality of the objects that surround us without the blanket rejection of technology that is trapping many people in an alternative life-style of shoddy creativity.

[Reviewed by Terry Gunesch]

wyatt frydenland,
a student of mine,
once said
"do it right the first time."
now, that's a little bit tightass
when applied to homedone things.
maybe it should read
"practice until you can
do it right the first time."
or
"a thing worth doing is worth doing."
or
"just go ahead on and do it,
whatever it is,
and learn from your mistakes."
or
"find somebody who knows something
and learn it from him."
or
"through industry we prosper,"
and all that craft.

-jd



Nature and Art of Workmanship

David Pye
1968; 101pp.

\$4.95 postpaid

from:
Cambridge University Press
32 East 57th Street
New York, New York 10022

or WHOLE EARTH CATALOG

There is a very present danger that, as the kinds of medium-scale diversity which free workmanship used to impart to building become less readily available, what little can be had in that way will be over-played and in the end travestied. We do not want every piece of concrete to show board-marks, every piece of paving to be cobbled, every piece of masonry to be random rubble, every piece of brickwork to be left unplastered. There is a place for all those things, but such elephantine capers unaccompanied by diversity at smaller scales become merely ludicrous. What we want is diversity which begins at the smallest visible scale and develops continuously upwards from that; and even then we do not want it always and everywhere. Vitamins are necessary to life, but only in small amounts. Take them in large amounts and they make you ill. So I believe it is with diversification in workmanship. I do not suggest it is more—or less—than a vitamin: not a diet: not a panacea: merely something which, though we may not take much notice of it, we need to have.



Ruskin said 'If we build, let us think that we build forever'. Shall we say 'If we build, let us remember to build for the scrapheap'? Shall we make everything so that it goes wrong or breaks pretty quickly? I think not. Men do not live by economics alone. There is a question of morale involved. A world in which everything was ephemeral would not be worth working for. There are overwhelming social and aesthetic arguments for durability in certain things even if, as we are told, there are no economic ones. These are:

First of all, the things we inherit from the past remind us that the men who made them were like us and give us a tangible link with them. This is a thought to set off against the knowledge that life is short. Hitherto it has been inconceivable that any one generation should discard all the equipment it has inherited and replace it completely. That may yet become possible. Even if it does, it will still be imperative for each generation deliberately to make some of its equipment so that it lasts and survives its makers.

Secondly, if you are making a thing so that it goes wrong or breaks, then, however honestly you state the fact, two other facts remain. One is that you are putting as little into the job as you decently can. The other is that you are in a fair way to force its user to spend his money on replacing that thing instead of for some other purpose. He may be glad to replace it, in an age of materialism and the passion for novelty. But why should we all be compelled to keep spending money on renewing our car, our cooker and our refrigerator? These things for some people are merely means to other ends in life. Why should be not save the money so as to pursue those ends the better: altruistic, learned or artistic ends, say? Things which are made to fail early should be made maintainable and repairable, so that a man who cares for something other than novelty and status-symbols can make them last his time respectably while he gets on with his life. Optional durability is what we want.

★ Cabinetmaking & Millwork

Here is a big expensive book for all you woodworkers. Combine this with Hand Woodworking Tools and assorted other specialized books like Planecraft (Spring 1970 WEC) and you will have just about all you can get into books about cabinetmaking and finish carpentry. Heavy on power tools and machine tools.

[Suggested by Carl Nortenson.
Reviewed by Fred Richardson]

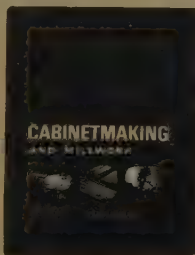
Cabinetmaking and Millwork

John L. Feirer
1967; 928 pp.

\$16.68

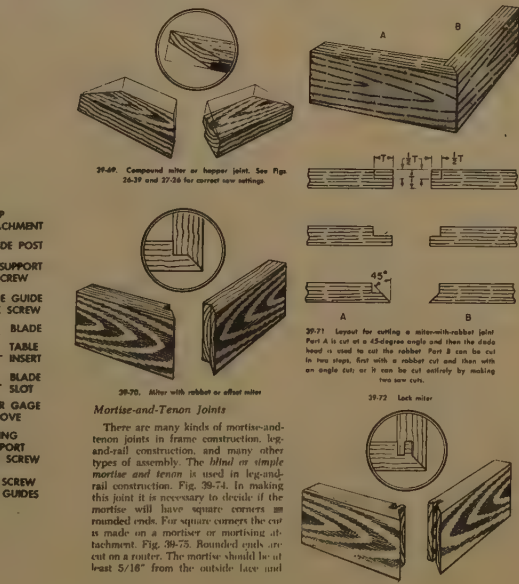
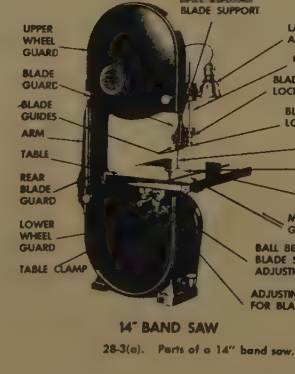
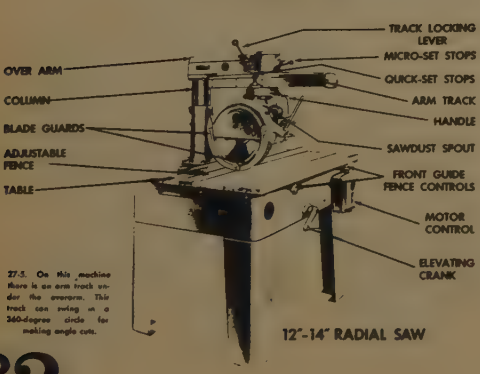
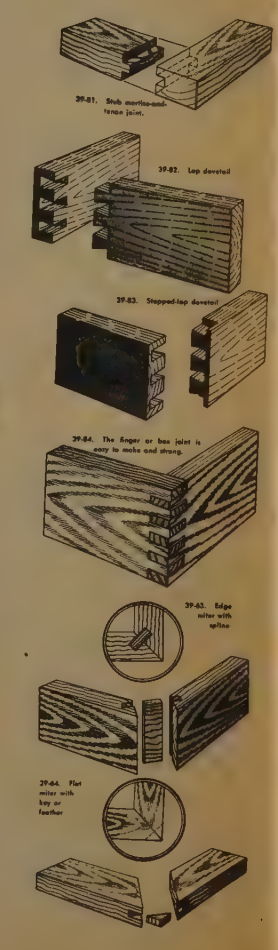
Chas. A. Bennett Co., Inc.
809 West Detweiler Drive
Peoria, Illinois 61614

or WHOLE EARTH CATALOG



CHARTED BELOW ARE FEW OF THE MOST COMMON SHANK DIMENSIONS FROM 8 TO 20. THESE SIZES ARE THE MOST AVAILABLE AND ARE THE MOST VERSATILE.

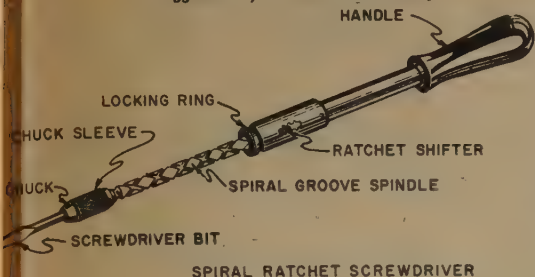
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3/4 inch	2	3	4	5	6	7	8	9	10	11	12
1 inch	3	4	5	6	7	8	9	10	11	12	13
1 1/4 inch	4	5	6	7	8	9	10	11	12	13	14
1 1/2 inch	5	6	7	8	9	10	11	12	13	14	15
1 3/4 inch	6	7	8	9	10	11	12	13	14	15	16
2 inch	7	8	9	10	11	12	13	14	15	16	17
2 1/4 inch	8	9	10	11	12	13	14	15	16	17	18
2 1/2 inch	9	10	11	12	13	14	15	16	17	18	19
2 3/4 inch	10	11	12	13	14	15	16	17	18	19	20
3 inch	11	12	13	14	15	16	17	18	19	20	
3 1/4 inch	12	13	14	15	16	17	18	19	20		
4 inch	13	14	15	16	17	18	19	20			



Hand Woodworking Tools

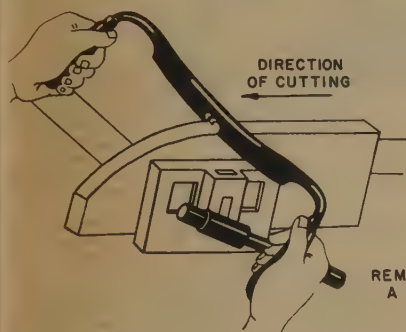
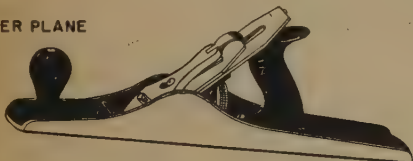
Best book on hand woodworking tools I have seen. Detailed information on care and maintenance, including sharpness, for each tool covered. Goes into individual tools much more thoroughly than more general books like the Stanley book. Has a very clear section on transit-levels and builders' levels.

[Reviewed by Fred Richardson.
Suggested by Howard Sutherland]



SPIRAL RATCHET SCREWDRIVER

JOINTER PLANE

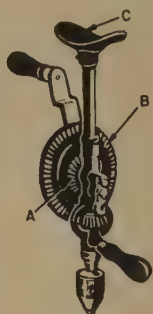


Hand Woodworking Tools
Leo P. McDonnell
1962; 294 pp.

\$5.00 postpaid

from:
Delmar Publishers, Inc.
Box 5087
Albany, N. Y. 12205

or WHOLE EARTH CATALOG



BREAST DRILL

File Filosophy

Nicholson has been making files for 106 years, so it is only right that they publish a book about files called *File Filosophy*. If you ever use files, the book is worth getting, the more so because it is free.

Nicholson also has *Sawology*, about power and hand metal cutting. Again free.

[Reviewed by Fred Richardson]

File Filosophy
1956; 46pp.

free

from:
Nicholson File Co.
Providence, Rhode Island 02940



Right



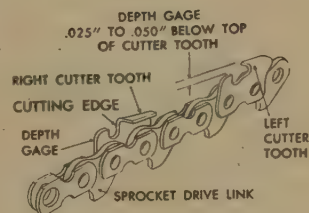
Wrong

Filing Block. A piece of hard, close-grained wood having grooves of varying sizes upon one or more of its sides. Used for holding small rods, pins, etc., in the jaws of the vise while being filed. Also a block of zinc, copper or other fairly soft metal as one of a pair of "protectors" placed between the vise jaws to prevent work becoming damaged while being held for filing.

Float. Sometimes used to refer to the coarser grades of single-cut files when cut for very soft metals (like lead) or for wood.

Overcut. The first series of teeth put on a double-cut file.

Point. The front end of a file.



Woodcraft Supply

Some years ago, a large, dour Scot, Mr. Eaton by name, was trying to teach Boston schoolboys how to cut a clean mortise with machine-made carbon steel chisels. He couldn't, and being a Scot and stubborn, he began to import fine hand tools from across the water. He had to buy more than he needed, and he sold the surplus, reluctantly, from a dark cobwebbed shop on North Washington Street. To his surprise, he found that other craftsmen had also thrown shoddy tools through cellar windows in fits of frustration. North Washington Street has been torn up, and Mr. Eaton has passed on to the great workshop in the sky, but his company has become the Woodcraft Supply Corp., 313 Montvale Avenue, Woburn, Massachusetts 01801. It is a unique enterprise that operates contrary to the accepted principles of American business. As any hardware store owner will tell you, no one today will pay \$47.50 for a nickel-plated fitted wood case. You can buy one from Woodcraft—if you are willing to talk about it for an hour and enjoy a good cup of home-brewed tea. Have you ever had your forearm shaved as clean as a baby's with a 1-pound paring gouge? You're not likely to have the experience many other places. The same personal touch is apparent in everything handled by this unusual company. (They sell a German cabinet-maker's bench of polished red beech that is seven feet long, weighs 300 pounds, is fitted with two built-in vises, and would make most furniture companies blush with shame. \$235.) Woodcraft Supply publishes a large-format illustrated 30-page catalog full of tools that you will never see anywhere else. It costs 25 cents, and you will be a rare craftsman if you don't order something after one pass through it.

[Suggested and Reviewed by Dr. Morton Grosser]

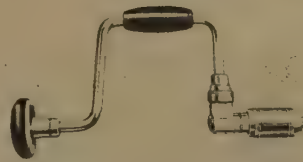
Woodcraft Supply Catalog

\$.25 postpaid from

from:
Woodcraft Supply Corporation
313 Montvale Avenue
Woburn, Massachusetts 01801

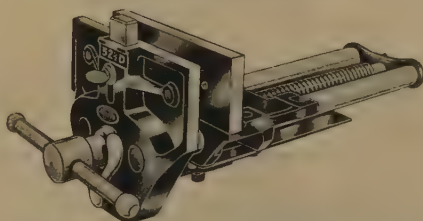


No. S-2101A. The "Yankee" deluxe brace. Nickel plated. Concealed ratchet construction. Quick centering ball bearing chuck. 10 inch sweep. Mailing weight 4 pounds. \$19.15



No. S-923. Self centering chuck, box ratchet, tough plastic trim, chrome plated. 10-inch sweep. Mailing weight 4 pounds. \$14.25

QUICK ACTION CABINETMAKER'S VISE



No. W524D. Extra high grade. Sliding bars are solid steel and work in accurately machined housings. Has bench stop locked by thumb screw. Continuous action. Width of jaws 9 inches, open to 13 inches. Weight 35 pounds. Mailing weight 40 pounds. \$28.75

BAND CLAMPS

No. 6220. Band Clamp. Solves the problem of clamping large, irregular and round shapes such as furniture frames, boat assemblies, tanks or columns. Strong two-inch canvas bands encircle the work, self-locking cams hold without slipping while final pressure (up to 2800 lbs.) is applied. Castings and handle are malleable iron, screw is 5/8" cold drawn steel. Length 20 feet. Mailing weight 6 pounds. \$19.95



BIT BRACES

Gerstner Tool Chests

If you enjoy reading this catalog you are probably the kind of person that is seized by an irresistible urge to open all those beautifully fitted little drawers in antique cabinets. You can satisfy the urge in your own home thanks to H. Gerstner & Sons, Inc.

They make superb wood cases that will hold small interesting things of almost any size and shape: machinist's chests, medical instrument cases, boxes for artists, photographers, dental hygienists, and so on, ad infinitum. The thing that sets Gerstner apart from their competitors is their concern with quality. You can buy a box from them that will stand with perfect aplomb on your Chippendale end table. Their cases are made of polished quartersawed oak, American black walnut, or can be covered with black leather or vinyl. Prices range from \$27 to \$85, and one look will convince you that their products are a rare bargain in an injection-molded age. Their service is personal and quick; illustrated literature is available. You can get factory seconds at reduced prices, too.

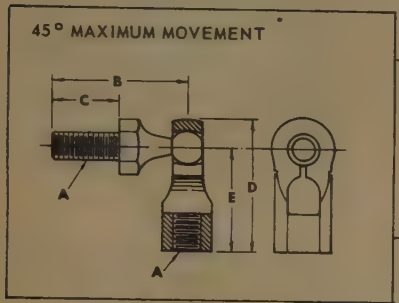
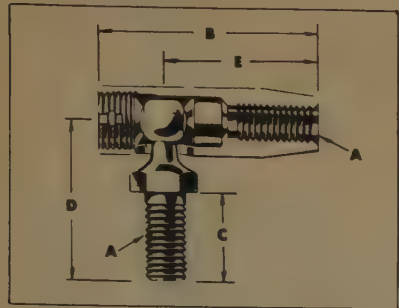
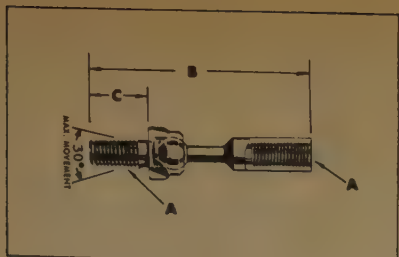
[Suggested and Reviewed by Dr. Morton Grosser]

Write to:
H. Gerstner & Sons, Inc.
20 Cincinnati Street
Dayton, Ohio 45407



Walnut Style

POLISHED WALNUT	POLISHED OAK	ART LEATHER	OUTSIDE SIZE	SHIPPING WEIGHTS
No. W42	No. O42	No. 42	20" x 15 3/4" x 9 1/2"	30 lbs.
No. W52	No. O52	No. 52	26" x 15 3/4" x 9 1/2"	34 lbs.



BALL JOINTS

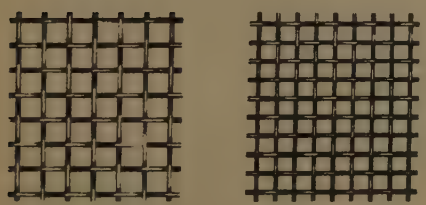
Small Parts, Inc.

Did you ever take a broken appliance apart and find you needed a small nylon washer or a new flat spring, and the company that manufactured it is no longer in business? This unusual mailorder firm stocks such items as well as nylon threaded rod, brass and stainless steel wirecloth, tubing connectors, Teflon tubing and many other hard-to-find items. Their free 60 page catalog contains brass, aluminum, nylon and stainless steel in various forms and shapes for those hobbyists who wish to construct their own home-made machines or devices. The company pays shipping charges and does not require a minimum order. However, a handling charge of \$1.00. is added to all orders under \$5.00.

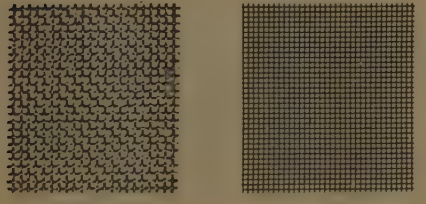
[Suggested and Reviewed by Gerard Ruch]

Catalog free

from: Small Parts, Inc. 6901 N. E. Third Avenue Miami, Florida 33138



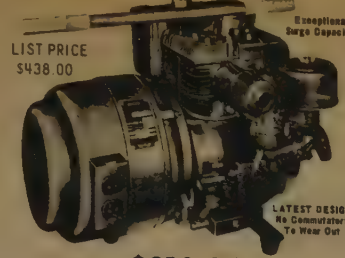
6 8 (Brass only)



20 30

WIRE CLOTH

3500-Watt Portable Power Plant



LIST PRICE \$438.00 (ITEM #654) **\$319.85** F.O.B. Lincoln

• (ITEM #654) -- Brand new, latest design plant with ultra-efficient silicon diode circuitry alternator. Alternator has no commutator or DC brushes to wear out. The plant has sufficient power to safely start a 1/2 HP electric motor under full rated load. Ideal size for carpenters, plumbers, electricians, masons, farmers, contractors, utilities, etc. Excellent for use as stand-by power in case of REA or commercial power failures.

Specifications

ENGINE	ALTERNATOR
• Briggs-Stratton	• 3500-watts
• 1-cyl., 4-cycle	• 115-230-volts
• Air cooled	• 60-cycles AC
• 7.0 HP @ 3600 RPM	• 1-phase 3-wire
• Ball bearing shaft	• Power outlet receptacles
• Hi-tension magnet	(1) 115-VAC, 20-A.
• "Easy Spin" recoil start	(1) 230 VAC, 30-A, 3-wire
• Splash-type oil system	• Ball bearings
• Fuel consumption full load, 76 GPH	• Direct drive
	• Inherent regulation

• Size 22" x 18" x 17" • Shipping weight 154 lbs.
Electric Pushbutton Start Model
 • (ITEM #654-E) -- Same capacity plant (ITEM #654-E) equipped with special electric start winding. Automatically changes battery. Uses 12-volt battery (not furnished). **\$359.60** F.O.B. Lincoln

Surplus Center Equipment Catalogs

Not only are these catalogs handy to the man who may need such parts, but they can also serve as idea-generators for solving certain mechanical problems—thumb through the pages. Some of the parts are better hunted locally where you can see, try, discuss with salesmen and haggle. Some are rare and good deals. Best suited to the mechanically hip, especially away from big city sources. All "surplus" is risky stuff unless you're familiar with it.

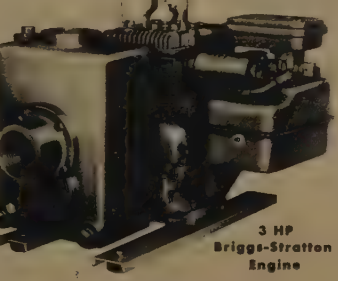
[Reviewed by J. Baldwin. Suggested by Lama Foundation]

Catalog free

from: P. O. Box 713 Lincoln Nebraska 68501

2" Gas Engine Centrifugal Pump

Portable Up To 9000 GPH
 Self-Priming Up To 90 Ft. Head



(ITEM #264) **\$109.50** F.O.B. Lincoln

• (ITEM #264) -- Designed for heavy duty dewatering and general pumping purposes. The light weight, compactness and portability in combination with the self-priming feature makes it ideal for contractor use, on the farm, nurseries, truck farms, etc. Useful for excavation dewatering, emergency water supply, fire fighting booster service, pumping liquid fertilizers and many other heavy duty and utility services.

• The pump will pass solids up to 1/2" diameter without damaging the crankshaft of the engine or jamming the impeller. Heavy duty neoprene flapper check valve assures that priming fluid will not siphon down after the pump is shut off. Cast aluminum, heavy duty case and cover.

SPECIFICATIONS

- Briggs-Stratton 3 HP gas engine
- 4-cycle, 1-cylinder, air-cooled
- Recoil start, foam air cleaner
- Ball and sleeve bearing crankshaft
- Pump capacity up to 9000 GPH
- Total head up to 90 feet
- Suction port 2" IPT
- Discharge port 2" IPT
- Self-priming after initial prime
- Stainless steel mechanical seal
- Overall size 17 1/2" x 14 1/2" x 12"
- Net wt. 47 lbs., Shpg. wt. 51 lbs.

CAPACITY TABLE (3 Ft. Suction Lift)

Head Ft.	GPH
5	9000
20	8400
40	6500
60	4300
80	1500

FINLAND

JAMSA KONEPAJA JA VALIMO OY, Aniankatu 1, Lathi. Leading Finnish manufacturer of a comprehensive selection of hydraulic and pneumatic cylinders, valves and complete systems. Agents invited. (E)

NEPAL

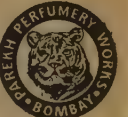
MAHENDRA & SONS, Dhalayacha, Lalitpur, (Bhagmati Zone). Exporters of Copper Artwares, Brass Artwares, Studded Handicrafts, Bronze Figures, Wood Carvings, Oil Paintings, "Miracle of Knife", Woollen Matching Bags, Costume Dolls, Tibetan type woollen Jackets, Silk Sarees. (E)

S. AMERICA

COLMEERS INTERNATIONAL, P.O. Box 76, La Oroya, Peru. Peruvian handicraft for export, silver, gold and copper hardware, Alpaca wool, Peruvian ponchos. Catalogue on request. (E)

E. AFRICA

COAST DRAPERS, P.O. Box 9096, Mombasa, Kenya. Exporters of: African Woodcarvings, Handicrafts, African Drums, Ivory inlaid tables etc. Ask for Catalogues & Price List. (S)



Afrasian Markets

international marketplace. a monthly catalog of exported goods from afasia? fine information source if you are having trouble getting tools and supplies wherever you are. lots of simple devices and goods still being made in countries less influenced by consumerism than are these united states.

—jd [Suggested by Jack Wise]

Afrasian Markets

\$10.00 a year (monthly)

from: The Amalgamated Press 41 Hamam Street P.O. Box 325 Bombay 1, India



THE NATIONAL TRADERS, 305 Musjid Bunder Road, Krishna Nivas, Bombay 3. Offers for Agency invited from overseas indenting agents for Tarpaulins, Textiles, Pure Silk Products, Spices, Crude Drugs, Agarbatties, Builders' Hardwares, Onions, and other Indian Products. Inquiries carefully solicited. (D)

JAPAN

23A, Netaji Subhas Road, 1st Floor, CALCUTTA-1

TAIYO KOEKI CO. LTD, No. 1-16 2-chrome, Aka-nawa, Minato-Ku, Tokyo. Electric and Electronics parts, and its making machineries, Label printing and embossing press, Silk screen printing machine, High frequency welding machine, Air-conditioning and refrigerating equipment, Second hand bulldozer, shovel-tractor and fork-lift-truck. (D)

SPAIN

SEBMAGEFESA, Derio (Bilbao). Pressure Cookers, first production in the world Expresso coffee-makers, kitchen utensils, stainless steel table cutlery, stainless steel tableware, Polish steel and enamel coated articles. Non stick frying-pans. (E)

THE NETHERLANDS

Washing machine factory in Holland offers at very competitive prices. Washing machines £11.0.0, Centrifuges £7.10.0, Wringers £5.10.0. Ask for sole agency to HAAS WORKS, Resweg 155, Dordrecht, Holland. (E)



The fastest cutting tools for wood, plastic, etc., and metals up to the hardness of mild steel.
Surform Round File\$2.95

Long or Professional Carvers type supplied without handles.

The cutting edges are bevel ground, the tools are highly polished at the inside and priced right.



Chisel



Skew Chisel



Straight Gouge

Frank Mittermeier

Fine carving, sculpting, and engraving tools.

[Suggested by Jerome Scuba]

Catalog

free

from:
 Frank Mittermeier, Inc.
 3577 East Tremont Avenue
 Bronx, New York 10465

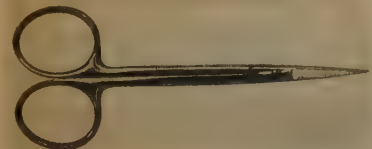


LIGHT RIVETING HAMMER IS FOR FINE WORK

Swiss-style light riveting hammer is handy for many metal working operations besides riveting. Such as shaping, forming, flattening, bending and forging metal, driving pins, cutting gaskets, setting cotter pins, etc. etc. Hard-to-find small size.

Also excellent as light nailing and tacking hammer. Forged of high carbon tool steel. Hardened, tempered, for years of use. Fine grind finish. Hardwood handle. Head about 3" long.

K-1653 Light riveting hammer \$2.70
 Three & up Each \$2.50



IRIS SCISSOR IS IDEAL FOR PRECISION MINIATURE WORK

This genuine surgical instrument was designed for delicate eye surgery. Light weight reduces fatigue, aids precise placement. Long, slender blades taper to point for best visibility, maximum get-in ability.

Ideal for precision decoupage, other exact, detailed cutting of paper, cloth, foils, other thin sheet materials. Excellent on electronic insulation and shielding braid.

Forged of finest surgical stainless steel. Mirror polished all over. About 4 1/2" long.

M-1667 Iris scissor \$3.50
 Six & up Each \$3.00

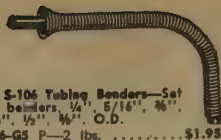
Brookstone Tools

If precision tools are what you need, this company has nice ones.

Brookstone Catalog

\$.25

from:
 Department C
 3 Brookstone Building
 Peterborough, New Hampshire 03458



No. S-106 Tubing Benders—Set of 6 benders 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" O.D.
 S106-GS P—2 lbs.\$1.95



Stanley Bench Planes—Made of the finest iron castings with sides and bottoms machined true. Mouth opening can be made wider or narrower as desired.

Cutter adjusts for thickness and evenness of shaving. Lateral adjusting lever permits very fine adjustments. Handles and knobs made from the finest hardwood.

Stanley Smooth Bottom Planes—

3-S19 P—4 lbs. 8" x 1 1/4" cut \$9.35

4-S19 P—4 lbs. 9" x 2" cut \$9.15

5-S19 P—5 lbs. 14" x 2" cut \$9.80

5 1/2-S19 P—4 lbs. 11 1/2" x 1 1/2" cut \$10.15

6-S19 P—7 lbs. 18" x 2 3/4" cut \$13.75

7-S19 P—8 lbs. 22" x 2 3/4" cut \$18.95



Carbide-Tipped Saw Blade—Most versatile made... the first real "all-in-one" blade. Rips, crosscuts, miters and bevels... cuts all woods, most plastics, shingles, formica, wallboard, thin brass and aluminum. Chrome impregnated for longer life. Tips of tungsten carbide permanently and perfectly brazed into the saw. Saves you big money. Actually outlasts and outperforms ordinary blades 25 to 1. For power hand saws, bench and radial arm

Saws—All Blades have 8 teeth

43-V3 5 1/2" x Dia.\$ 8.24

43-V3 6 1/2" x 1/2"\$ 8.25

43-V3 7" x 1/2"\$ 8.50

43-V3 8" x 1/2"\$ 9.29

43-V3 10" x 1/2"\$10.50

Silvo Hardware

Tools tools tools. Brand names. Mostly good stuff. Several quality levels on almost all items. If you know what you want, it is probably here. Prices good, sometimes not as good as U. S. General. I have been pleased by their service on returned items. Takes about two and a half weeks to West Coast. Minimum order \$10.00.

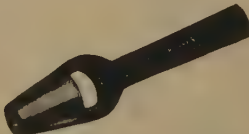
[Reviewed by Fred Richardson]

Silvo Catalog

146 pp.

\$.25

from:
 Silvo Hardware Co.
 c/o Mr. Collins
 Advertising Dept.
 107 Walnut Street
 Philadelphia, PA 19106



Osborne Arch Punches—Drop forged in one piece from high alloy steel—Made to Govt. specs. A unique feature of the Osborne Arch punch is the inside taper which permits the punchings to clear easily through the barrel. Punches have fully polished barrel and black japanned handle. Please specify size when ordering—

149-07 1/4"\$1.98

149-07 3/4"\$1.99

149-07 1/2"\$2.40

149-07 5/8"\$2.69

149-07 3/4"\$2.85

149-07 7/8"\$3.19

149-07 1 1/2"\$4.79

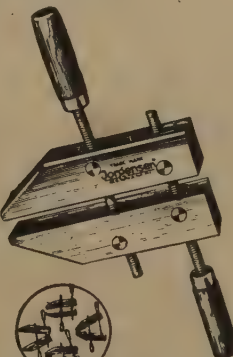
149-07 1 1/2"\$9.45

149-07 1 3/4"\$14.00

149-07 2"\$16.10

K14-07 P—lbs. Arch Punch Set in canvas tool roll contains: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" and 1" sizes

.....\$17.50



Jorgensen Hendscrews—Style J—adjustable to any angle—Jaws of carefully selected and seasoned hard maple, perfect grain, oil finished and tested. Spindles and nuts are special analysis cold drawn steel with special rapid type threads. Hard maple handles with extra heavy steel ferrules.

J=length of jaws. O=Opening between jaws.

5/0-A2 1 lb. J-4" O-2"\$3.12

4/0-A2 1 lb. J-5" O-2 1/2"\$3.35

3/0-A2 2 lbs. J-6" O-3"\$3.59

2/0-A2 2 lbs. J-7" O-3 1/2"\$3.95

0-A2 2 lbs. J-8" O-4 1/4"\$3.90

1-A2 3 lbs. J-10" O-6"\$4.45

2-A2 4 lbs. J-12" O-8 1/2"\$5.15

3-A2 6 lbs. J-14" O-10"\$6.45



Lufkin Lokmatic Power Tapes—offers more plus features than all the others. Pull blade out—it stays out. Press nameplate push-button—blade returns under full control. To lock blade securely at any point simply flip down handy lock button. Large, easy-to-read graduations are black on white. Graduations last longer because blade is completely protected by a transparent, epoxy coating. Self-adjusting nickel plated end hook. Chrome plated case trimmed in black. Removable belt clip. Blade graduated feet, inches and 16ths—first 12-inches lower edge to 32nds. Foot figures and red 16-inch stud centers specially marked for quick measuring.

W7210—17 1/2" x 10 ft. Blade \$2.07

W7212—17 1/2" x 12 ft. Blade \$2.47

W7312—17 3/2" x 12 ft. Blade \$3.33

W7316—17 3/4" x 16 ft. Blade \$3.97



Jorgensen Cee Clamp—(for "regular" service) Drop-forged, heat-treated, steel frames. Heat-treated steel screws. Steel swivels, ball-and-socket type, of special (pat. appl. for) design, put on to stay! Extra deep throat. For all regular industrial service. Requirements. Size = Opening x Depth in inches.

404-A2 P—3 lbs. 4 x 2 3/4"\$5.40

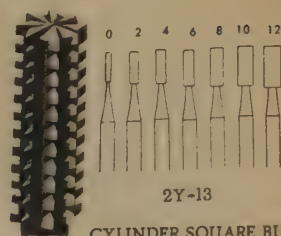
406-A2 P—5 lbs. 6 x 3 3/8"\$7.48



FORMING HAMMER 4 1/4"
 Faces 3/4" x 3/4" 6 1/4 oz.



FLAT IRON—approximately 5 1/2 lbs. A convenient way to weight fired pieces after removal from kiln to prevent warping.



2Y-13
CYLINDER SQUARE BURS

IQ-4 Copper Pickle Pans



#2 Medium Weight

#3 Light Weight

Allcraft Tool & Supply

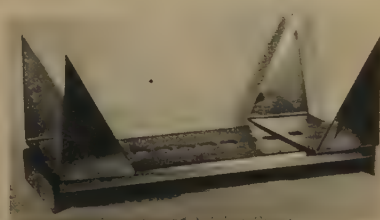
Crafting requires tools specific to the material and the scale you're working with. This is the best supplier we've seen or heard of for craft tools.

[Suggested by ONYX]

Allcraft Tool & Supply Catalog

\$1.00 (refundable with purchase)

from:
 Allcraft Tool & Supply Company, Inc.
 215 Park Avenue
 Hicksville, New York 11801



E4-250 **ADJUSTABLE STILT**—Wings fit into holes in base without screws. To order complete stilt specify size
 A - Base - 7", 9", 11"
 B - Wings - Small, large



1M-1 **MOUTH BLOWPIPE**—Use with alcohol lamp.



2K-11
Mushroom Stake
 3 1/2" dia., 5 lbs.



2K-12
Flat Top Stake
 4 1/4" dia., sharp edges 5 lbs.

Otto Frei-Jules Borel
Tool and Supply Catalog no. 695
free

from:
Otto Frei Company
760 Market Street, Room 1028
San Francisco, California 94102



PEER MAGNIFIERS

Imported high quality magnifiers with specially corrected lenses that give good distortion free viewing.

No.	Style	Working Distance	Power	Price
22-011	Doublet	1"	10X	\$5.10
22-01E	Coddington	3/4"	15X	6.00



ANTI-RUST SOAP

Prevents rust caused by perspiration from your hands. Simply wash hands twice daily using this soap.

No.	Description	Each
52-771	Cake	\$0.90



ROUND AND HOLLOW NOSE PLIERS

One jaw is round and other is concave. Jaws taper to a fine point with all sides smooth and finely polished. For making bends.

No.	Length	Each
37-562	5 1/4"	\$6.75

Graves-Humphreys
catalog no. 6970S
free

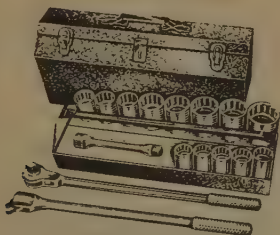
from:
Graves-Humphreys Co.
Box 1240
Roanoke, Virginia 24006

AGATE MORTAR and PESTLE



For grinding enamels.

No. 770-J \$12.00



3/4" DRIVE SOCKET SETS

A complete set containing high quality, hot forged, mechanics' tools. Contains flex handle, reversible ratchet, 6" extension, thirteen 12-point sockets in hip roof chest with tote tray. Openings 1 1/8", 1 1/4", 1 3/8", 1 1/2", 1 5/8", 1 3/4", 1 7/8", 2", 2 1/8", 2 1/4", 2 3/8", 2 1/2", 2 5/8", 2 3/4", 3", 3 1/8", 3 1/4", 3 1/2", 3 3/4", 4", 4 1/4", 4 1/2", 4 3/4", 5", 5 1/4", 5 1/2", 5 3/4", 6", 6 1/4", 6 1/2", 6 3/4", 7", 7 1/4", 7 1/2", 7 3/4", 8", 8 1/4", 8 1/2", 8 3/4", 9", 9 1/4", 9 1/2", 9 3/4", 10", 10 1/4", 10 1/2", 10 3/4", 11", 11 1/4", 11 1/2", 11 3/4", 12". Chest size 19" x 9" x 7". Shipping weight, 33.3 lbs.

No. 3417—17-piece set Per Set \$62.88

VALVE GRINDER



VALVE GRINDER NO. 301-S
For Small Motors

Gives short smooth but quick forward and back movements which constantly advance the valve to new positions and insures perfect grinding. A Ball Thrust Bearing on the spindle gives easy action. Well Balanced finely finished sturdy tool is built for continued use. Case is black enamel. Long and short self-locking stems, universal bit. Special valve grinding bit, small spring and No. 333 small vacuum cup, small and large self-locking stems. Price \$3.10

No. 301

CATALOGS

a bunch of catalogs for catalog's sake.
people learn from catalogs.
if there was only one way to do a thing,
then there wouldn't be any reason
to choose between this and that;
catalogs are wishbooks,
where you can match
what you want
with
what you need;
catalogs are dictionaries
where you can learn the vocabulary,
talk shop.

-jd

T.N. Lawrence and Son
Catalog March 1970

free

from:
T.N. Lawrence and Son Limited
2-4 Bleeding Heart Yard
Greville Street, Hatton Garden,
London, E.C.1. England



REST ON BACK
WHEN NOT IN
USE

Rollers, Soft Plastic, Transparent.

7/- each	7/-	7/-	7/-	7/-	7/-	7/-
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TOOLS for ENGRAVING

Gravers Lozenge	several sizes					
"	Square					
Spitstickers, Fine, Medium, Broad						
Scorpers, round, Nos. 1-12						
" square, Nos. 1-12						
Tint Tools, Nos. 1-6						
Bullstickers, 3 sizes						

*
Vigor.Bergeon. Bestfit
Catalog no. 116

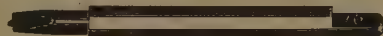
free

from:
Bartlett and Company, Inc.
5 South Wabash Avenue
Chicago, Illinois 60603



TIN SOLDER

Hardest soft solder on earth • Melts at 275° F. (Ordinary solder melts at 375° F.) • Stays white - NO BISMUTH • Sets hard - Many times harder by actual Brinel tests • 4300 lbs. per square inch bonding holding strength.
50-525 Ea. \$3.00



PEARL DRILLS

For drilling holes in pearls to prepare them for pin mountings, or to make beads.
DR-550 - Set of 12 in wood box Set. \$5.50
DR-551 - Separate Sizes (State Size) Ea. .60

GOLD TEST STONES

For determining gold content of old gold. Gold for testing and gold needle are both rubbed on stone - acid is applied and by comparing the reaction to the acid, the karat content can be ascertained.
ST-713 - 2" x 1 1/2" x 1/2" Ea. \$8.95
ST-714 - 2 1/2" x 1 1/2" x 1/2" Ea. 3.40
ST-715 - 3" x 1 1/2" x 1/2" Ea. 3.75



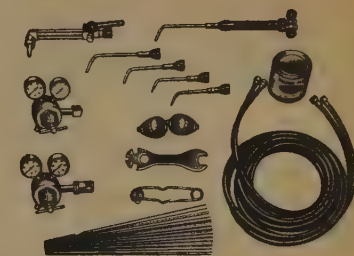
Grainger's
Net Price Motorbook No. 328
free

from:
W.W. Grainger, Inc.
1430 San Mateo Avenue
South San Francisco, Ca. 94080

36" 2-SPEED CEILING FAN
Quiet, Draft-Free, 3630/2585 CFM Air Movement

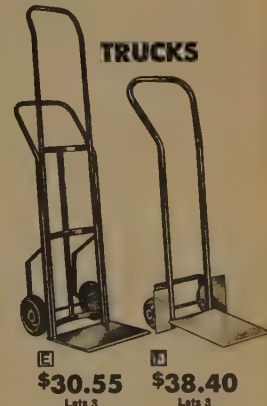


\$57.00
Lots 4



2-STAGE HEAVY DUTY WELDING & CUTTING \$130.05
No. 22357

TRUCKS



\$30.55 \$38.40
Lots 3 Lots 3

Snap On Tools
catalog "BB"

[suggested by Dr. Morton Grosser]

free

from:
Snap-On Tools Corporation
Kenosha Wisconsin 53140



GOVERNMENT SURPLUS FOR NON-PROFIT GROUPS
 There is, in theory, a very special deal for local government and private non-profit educational groups. You may qualify if your shell has been labeled a non-profit corporation or foundation even though your purpose is not solely educational, e.g., a church. GSA and DOD property is available through special direct and State administered programs. It will take several weeks to qualify for these programs, but don't stop there; also get your name on the regular lists open to all. In one part of the special program the Government donates the stuff free to a State agency that administers its distribution. The State agency then sells it to the qualified non-profit group for what it costs them to handle it.

"Donation" Information Packet
free

from:
 U.S. Department of Health, Education and Welfare
 Office of Field Administration,
 Surplus Property Utilization Division
 Washington, D.C. 20201

MACHINE TOOLS: Various types and sizes, including cutting tool holders, dog lathes, V-block and taper shank sockets.
 Inside - Unpacked - Used - Poor Condition
 Total cost \$800
 Est. total wt. 50 lbs. 1 LOT

BODY AND FRAME, JEEP, UTILITY: 1/4 ton, 1952, Willys M38A1, S/N 22659. With the following major components attached: engine block, transmission, transfer case, radiator, rear end and 4 wheels and tires. USA 20963498.
 Outside - Used - Poor Condition
 Total cost \$1000
 Est. total wt. 1750 lbs. 1 EACH



DEFENSE SURPLUS Much of the surplus you see in your neighborhood Army and Navy store may have come from a nearby Department of Defense retail store where you can buy small quantities from Uncle exactly as the store owner did. While intended to be open to all, the retail stores are becoming more difficult to find and visit. Your neighborhood store owner probably will not help. Many Defense Surplus Sales Offices (a list of these come when you request a Department of Defense Surplus Bidder application [below]) have retail stores, but they may not know of retail stores in nearby Defense installations. There seems to be no central list. You can try asking for "surplus property disposal officer" at all local large Army, Air Force, etc. bases. If you get someone, ask the day and time the retail store is open as well as the building number. Competitive bid bulk lot sales are basically simple once you get into them, but none of the information the Government sends you will allow you to believe a non professional can figure it out. "Sale by Reference," a Department of Defense term for non retail sales, includes methods no more esoteric than an auction. The only way to find out easily about these non retail sales is to put your name on the DOD mailing list for sale announcements. For the DOD there is one central address for the continental United States. You must ask specifically if you also want announcements of sales in Alaska, Morocco, etc. In exchange for your name and address to the below central office, you will get a bidder's application form asking which kinds of things you are interested in purchasing and which geographic regions you will purchase from. Check every type of thing you conceivably may need, since adding another category will take at least six weeks. Check at least two nearby geographic regions, and all geographical regions if you are interested in vehicles, boats, regions, aircraft. When your "bidder's application" is returned you will receive a pamphlet entitled "Sale by Reference" containing page after page of impenetrable small print, **DO NOT CHUCK IT OUT**, save it for yea shall need it. Also, save the sale catalogs for "sealed bid" sales for about 6 months. Get in the habit of looking at the mailing label on your sales announcements. Every two months or so the numeral 2 will appear in the middle of the first line, and you must send back a post card saying you are still interested in receiving the announcements. If you forget, it will again take at least six weeks to get back on the mailing list.

Bidders List Application
free

from:
 Department of Defense Surplus Sales
 P.O. Box 1870
 Battle Creek, Michigan 49016



**GOV'T
 SURPLUS**

[All reviews by Alan Kalker]

this is a page or so of alan kalker's research on the paperwork necessary to get hold of those fifty dollar jeeps we've all wetdreamed for so long. individuals can indeed buy things at the same price that straight-shooting ralph pays to stock them in his aceydeucey bargaincenter armory and good deal warehouse surplus outlet. read carefully, follow alan's steps, because it has to be done correctly to work.

-jd

The following pamphlet is a bit sketchy, but it seems to be the only general guide around. It will at least give you current addresses for fuller information on special problems.

How to Buy Surplus Personal Property
\$.25 postpaid

from:
 Superintendent of Documents
 U.S. Government Printing Office
 Washington, D.C. 20402

TRUCK, PICKUP: 1/2 ton, 1960 Ford model F100, S/N F10J0R50863, 4x2, 6 cylinder gasoline engine. Parts missing including instrument panel and ignition coil. FSN 2320-752-9452.
 Outside - Used - Poor Condition
 Total cost \$1255
 Est. total wt. 3550 lbs. 1 EACH

BUS: 37 passenger, 1960, International Harvester model B163-238WB, S/N SB127352E, 4x2, 6 wheels with tires, dual rear, wheel size 20", 238" wheelbase. Standard transmission with electric shift, air hydraulic brakes, 6 cylinder gasoline engine model BD-264, S/N 716275. Wayne body model 02509X, S/N 308850. Parts damaged including window, entrance door glass, cushion and wiper motor. Parts missing including coil and glove compartment door. #91-02098.
 Outside - Used - Poor Condition
 Total cost \$6450
 Est. total wt. 9000 lbs. 1 EACH



GSA (CIVILIAN) SURPLUS The General Services Administration has charge of getting rid of all government junk now owned by the Department of Defense. They sell an incredible variety of stuff. Not only old Post Office vans, but also Forest Ranger's old horses, and kilns from closed Job Corps Centers. GSA tends to be more diffuse than DOD. Except for vehicles, sale items are often scattered about in remote locations, a procedure that dissuades the professional surplus buyer. GSA does not seem to have any retail stores, but is experimenting with fixed price sales of Post Office motor scooters. GSA puts a price between \$37.50 and \$175.00 on the scooters depending on their condition. After an inspection period of about a week, the doors fly open at 9:00 am on a specified day and it's first come first served. Remnants are offered following days until sold. Since the 1/2 ton walk-in Post Office vans currently go for from \$120 to \$180 at GSA spot bid sales, it is difficult to know why anyone would want the scooters. Particularly when scooters in operable condition are often set at more than \$100.00. The walk-in vans have 110 cubic feet enclosed bodies and with some thought could almost be a camper. Spot bid sales are the favored method of GSA sale. While bids are submitted in writing like a sealed bid sale, they are open item by item in your presence and the winner announced as in an auction. When, for example, 10 identical vans are sold, you will know the winning bid on the first before you must submit your written bid for the second. There is no single central office for GSA sales information. You must request each geographical regional office to put you on the list.

Surplus Personal Property Mailing List Application
free

from:
 General Services Administration
 Property Management and Disposal Service
 Sales Branch, Personal Property Division

at the following regional addresses:

JFK Federal Building
 Boston, Mass. 02203

26 Federal Plaza,
 New York, New York 10007

7th and D Streets, SW
 Washington, D.C. 20407

1776 Peachtree Street, NW
 Atlanta, Georgia 30309

219 South Dearborn Street
 Chicago, Illinois 60604

1500 East Bannister Road
 Kansas City, Missouri 64131

819 Taylor Street
 Ft. Worth, Texas 76102

Denver Federal Center, Building 41
 Denver, Colorado 80225

1150 San Mateo Avenue
 South San Francisco, California 94080

Federal Office Building
 909 First Avenue, Seattle
 Seattle, Washington 98104

ENGINE, DIESEL: Fairbanks-Morse model 45B4-1/8, S/N NL-165, 2 cylinder-in-line, 4-1/8" bore, 5-1/4" stroke, 4 cycle stroke, single acting piston, liquid cooled, 25 BHP at 2000 RPM. Includes reduction gear 2 to 1 reduction ratio. FSN 2815-516-7452.
 Outside - Unpacked - Used - Fair Condition
 Total cost \$1950
 Est. total wt. 500 lbs. 1 EACH

DEFENSE SURPLUS BID ABSTRACTS The most formidable DOD sale by reference technique is the "sealed bid." You must mail a written offer in before a certain date, but unlike an auction you will have no idea of what others have bid since all bids are unsealed simultaneously. There is a commercial service that can at least give you a starting point. Suppose you see an announcement for a sealed bid sale for 600 lbs of assorted rotary, toggle, and sensitive electrical switches, unused, excellent condition, that cost the government about \$9,000; what would you bid? If you had been keeping the last six months of DOD sealed bid catalogs, you could find similar items in a past sale. Then write Bidder's Service Company for an abstract, which you will receive by airmail, and find the winning bids. In the example: \$56.79 for the whole lot. Interested in a bus? 29 passenger buses in fair condition go for \$590 (1957) Chev to \$690 (1961 Ford); 1961 Dodge 37 passenger models in poor condition fetch \$378-455. While the Kelley Blue Book might be some help in the case of vehicles, the abstracts indicate what the pro dealers will bid for all of a similar model. The abstracts now give not only what every bidder offered on every item in a particular sale catalog, but the name and address of each bidder, so you can pick out the pro's. In addition you might want to contact the successful bidder to buy part of a lot. With the abstract you will know exactly what he paid for it.

Bid Abstract Service

\$5.00 each, postpaid

first two for new subscribers **\$2.50** each

from:
 Bidder's Service Company
 Drawer 1790
 Fort Stockton, Texas 9 79735

★ Chainsaws

Mac and Homelite are the Ford and Chevy of chainsaws. Dealerships abound in timbered country, parts are easily found, and the saws are fairly simple, hard working tools. I've used both, and, being a Ford man, prefer the McCulloch, for no particular reason other than that they seem to run a little better, work a little harder. Both companies make a full range of sizes, from the teeny six pound, compression release, backyard loggers saws, right on up to the big mothers, with thirtysix inch rollernose bars, bearclaw dogs, and multiple hernias.

-jd

Information free

from:
McCulloch Corporation
6101 West Century Blvd.
Los Angeles, California 90045

Information free

from:
Homelite
A Textron Division
Port Chester, New York 10573



Chain saw parts

Low-cost chains and parts for chain saws. They also have plastic wedges—you don't wreck the chain if you hit the wedge. [Suggested by Tom Duckworth]

Catalog from: Southern Division
free Zip-Penn, Inc. P. O. Box 1791
Eastern Division Tallahassee, Fla 32300
P. O. Box 179 Western Division
Erie, PA 16512 P. O. Box 876
Bellingham, Wash. 98225

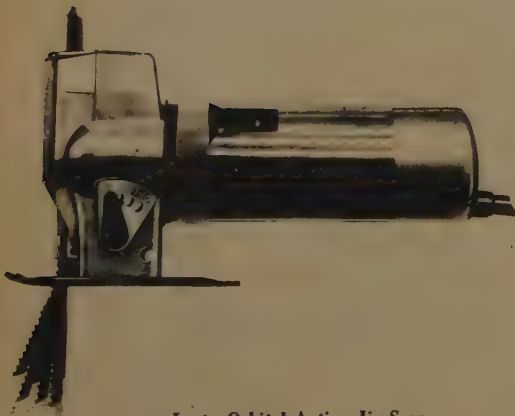
Chains to fit STRAIGHT BARS with a cutting length of —	Price Per Chain & Sprocket Set
12" to 14"	\$13.50
15" to 16"	\$14.50
17" to 20"	\$16.50
21" to 24"	\$18.50
25" to 28"	\$20.50
29" to 32"	\$22.50
33" to 36"	\$24.50
37" to 40"	\$26.50
41" to 47"	\$28.50

★ Lesto Orbital Action Jig Saw

Expensive but worth it. Follows a scribed line as accurately as a jig saw, cutting "smooth as a baby's ass" with no jumping around. Uniquely, it also can cut as rough and fast as a sabre or bayonet saw, humming through the toughest wood (up to 2-3/8" thick), soft steel (up to 1/4"), and a remarkable assortment of other stuff. It does this without any change in speed or power, changing only the kind and nature of the cutting stroke. Its hard to explain how this works, but it does. The fastest cuts are done with the easily adjustable orbital movement set for full swing, similar to the sort of rocking motion you use with a large hand saw for rough cuts. The minimal swing is like the motion used in cutting thin stock or accurate cuts. Almost 40 different blades are available, saw types as well as knife and rasp types, fitting it for reinforced plastics, laminated fabrics, soft rubber, asbestos cement, wood-metal laminations, and the usual and unusual metals and woods. Should be perfect for dome freaks. Lighter and more compact than ordinary sabre saws, it also can be used for hours without your arm feeling like it was dropped in a mixmaster and without your ears stuffed with cotton.

This Swiss goodie is hard to find since it is distributed as an "industrial power tool" through specialized distributors who service factories and wholesale hardware stores who sell to the construction industry. . . 20% off "Industrial Net [List] prices" is usual from the latter if you insist. While most of the so called "industrial power tools" may be irrelevant to our uses (e.g., demolition hammers), it is disturbing to find some of the best tools, designed for long trouble free use and low operator fatigue, being available only to those "in the trade." Perhaps other CATALOG readers know of similar small "industrial" tools that should be better known.

[Suggested by Don Boyce.
Reviewed by Alan Kalker]



Lesto Orbital Action Jig Saw Model 8554

\$99.50 industry net [list] price, postpaid

from:
Robert Bosch Corporation, Distributor
147 Beacon Street
South San Francisco, California 94080

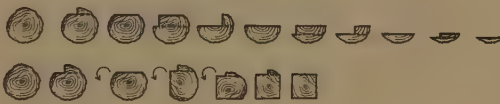
★ Mighty Mite

transportable sawmills, expensive, industrial, but a possibility, if you have more money or trees than you care to have.

-jd

Information free

from:
Mighty Mite
International Enterprises of America, Inc.
P. O. Box 20066
Portland, Oregon 97220



The above illustrations show how the Mighty Mite cuts up a log in a typical cutting sequence.

The illustrations to the left demonstrate one method of squaring a timber in only 3 turns of a log. A vertical cutting optional extra has been manufactured for square timber production. A flush mounted main saw allows vertical cutting down the face of a log so that only 1 turn of the log is necessary.



Alaskan Mill

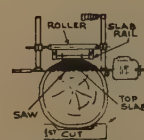
This is a roller attachment for a chain saw that enables you to make boards from trees. You need a minimum of 6 horsepower and a 16"-24" bar to power the one-man mills, and we're told that 12-15 h/p is needed for cutting any quantity of lumber.

There are two one-man attachments, and three two-man models.

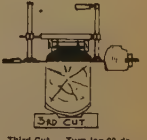
[Suggested by Elias Velonis]

Granberg Alaskan Chainsaw attachment (one-man)
No. G-758: \$71.50 FOB Richmond
Two man models: \$287.00-350.00

from:
Granberg Industries
201 Nevin
Richmond, CA 94801



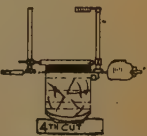
HERE IS HOW TO MAKE LUMBER. First Cut — Attach 2" roller plant for use as a slabbing rail. Adjust roller to lower blade and remove TOP SLAB.



Third Cut — Turn log 90 degrees. Use slab rail squares to sides and remove THIRD SLAB.



Second Cut — Use sawn surface as roller guide. Raise roller assembly and remove BOTTOM SLAB.

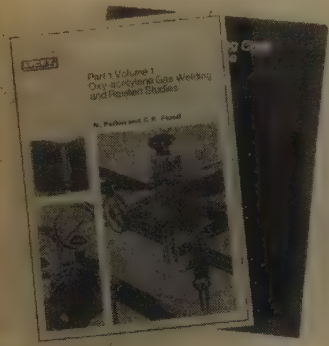


Now you are ready to make lumber. Adjust roller to any thickness as needed, and mill. Then make fully-dimensioned boards to any width.

Welding Craft Practice

If you have access to either a gas or an electric unit then all you need is the correlated volume of Welding Craft Practice and a lot of patience (whilst your hands learn what your ole brain says they should be doing) to begin transmitting the base metals. These books give a complete description of the equipment used in oxy- and arc welding plus a detailed accounting of the methodology from lighting the blowpipe to testing the strength of the finished weld. The potentially dangerous situations in storing transporting and welding with gas under pressure, and the precautions necessary for using electric arc are outlined in clear competent british prose. If youre going to learn welding on your own read the safety sections of the book first and return to them so that your safety consciousness is well programmed before picking up the striker.

[Reviewed by Doug Gunesch]



Welding Craft Practice Part 1, Volume 2 Electric Arc Welding and Related Studies
N. Parkin and C.R. Flood
1969; 182pp.

\$2.40 postpaid

from: Pergamon Press Inc. Maxwell House Fairview Park Elmsford, New York 10523 or WHOLE EARTH CATALOG

Welding Craft Practice Part 1, Volume 1 Oxy-acetylene Gas Welding and Related Studies
N. Parkin and C.R. Flood
1969; 159pp.

\$2.40 postpaid

from: Pergamon Press Inc. Maxwell House Fairview Park Elmsford, New York 10523 or WHOLE EARTH CATALOG

LIGHTING UP BLOWPIPE

Turn on both gas supplies and set correct pressures as before. Slowly open acetylene control on blowpipe until it is purged of air and acetylene is issuing freely (note and remember the pungent smell of the gas), and light at the tip of the nozzle using a spark lighter. The resultant diffused, luminous, but sooty flame is pure acetylene burning in air. Turn up the fuel gas supply until the smoke vanishes from the tail of the flame and the nozzle is now working at its normal capacity with a suitable gas velocity. The flame now, although cleaner, is still of a relatively low temperature. Open the blowpipe oxygen-control valve slowly and note the change in the character of the flame as the oxygen is introduced. The body of the flame turns blue with the formation of a hazy white zone which decreases in size with the development of a small greenish-white cone at the end of the nozzle. Continue increasing the supply of oxygen until the white "feather" of excess acetylene just disappears, leaving a clearly defined inner cone. This is a correctly adjusted neutral flame consuming equal quantities of acetylene and oxygen from the welding gas supplies and a further amount of oxygen from the atmosphere.

STRIKING THE ARC

Select a 10-gauge electrode for your first practice at striking the arc. Set the current regulator to 117 amperes. For material use 3x3/8" mild steel flat bar approximately 7 in. long (flat bar is more suitable than plate because it is much easier to cut, either with shears or power saw). Next, direct the tip of the electrode towards the practice plate. Do this a number of times with the current switched off. When the electrode touches the material, quickly draw away to about 1/8" from the surface. Do not worry about the correct angle of electrode at this stage. When this exercise has been practised a number of times and one has the "feel" of the electrode, switch the current on and practice striking the arc. Remember to keep the welding screen in front of your eyes and, when the electrode touches the plate, very slightly scratch the surface. When the arc burns quickly draw away to approximately 1/8". The arc will still continue to burn if the electrode is 1 in. or more away from the surface of the plate but the arc must be kept short in order to control the deposition of the weld metal.

Should the electrode "stick" to the plate, do not snatch and twist to try and free it as this will only result in the piece of flat bar being lifted from the bench still attached to the end of the electrode. The correct procedure is as follows: keeping the screen in front of the face, switch off the welding set at the switch fuse, which should be located on the wall of the welding bay. Then give the electrode holder a sharp twist, which will free the electrode from the plate. The electrode and the plate may be hot, so exercise caution if attempt to touch either of them. Before continuing after the electrode has been freed, inspect it to ensure that the coating at the tip is not damaged, as in most cases the coating will be broken. The arc is very difficult to strike with a bare wire and a fresh electrode should be taken if damage has occurred.

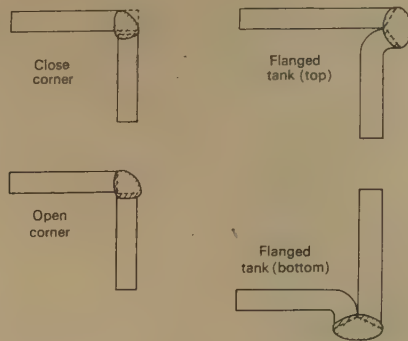
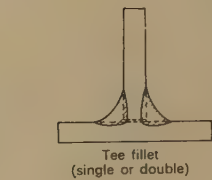


FIG. I.25. Types of welded joints.



Tee fillet (single or double)



FIG. I.26. Types of welded joints.

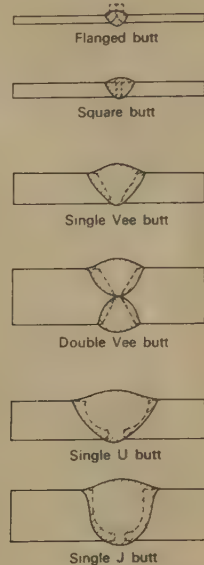


FIG. I.24. Types of welded joints.

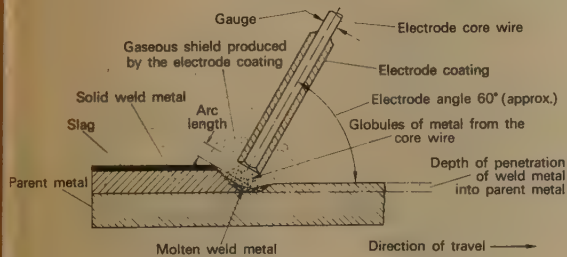


FIG. II.1. Metallic arc welding of mild steel.

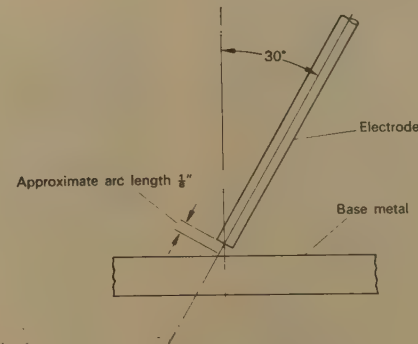


FIG. II.9. Electrode angle arc length.

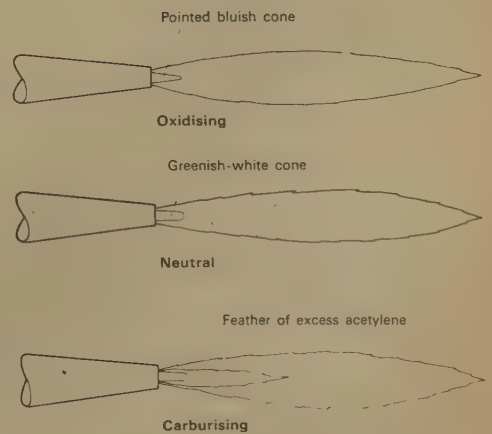


FIG. I.18. Types of flame.

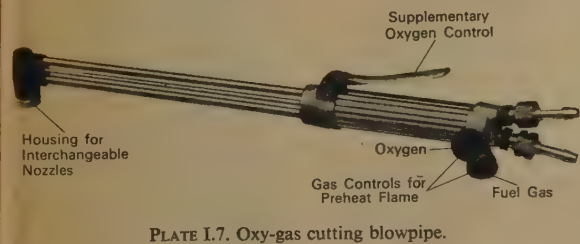


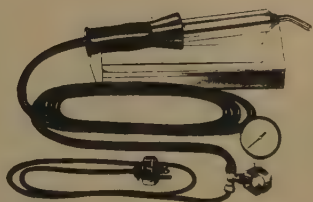
PLATE I.7. Oxy-gas cutting blowpipe.

Electric Plastic Welder
yes, you can weld plastic.

-jd

\$95.00 plus postage (information free)

from: Seelye Plastics 9812 James Circle South Minneapolis, Minnesota 55431



Solidox Welding Torch

If you need to do welding only once in a while, consider this: A cheapy (well...) that will do many small jobs well. Get a stack of literature from them. One one experience with them indicates that their mail order service may lack something.

[Reviewed by Fred Richardson]

Information free

from: Cleanweld Products, Inc. P. O. Box 1061 9220 South Atlantic Boulevard South Gate, California 90280



Whittemore Durgin Glass Company

*stained glass supplies,
everything you need
to change your view of the neighbors
into a flyeye leaded splendor.
i met a fellow on a train,
once,
who paid for his bumdom,
by packing around two suitcases
full of glassworkers tools,
fixing leaded windows,
here and there.*

-jd

[Suggested by Renee Gallery & Randy Street]

Catalog
\$25

from:
Whittemore Durgin Glass Company
Box 2065
Hanover, Massachusetts 02339



THE PROPER WAY TO HOLD A GLASS CUTTER



#875 CARBIDE SAW BLADE This amazing tool actually saws through glass. The only coolant necessary is water. With it you can convert old bottles into vases or old friends into enemies by cutting through their best china. This blade will also cut tile and the hardest steel. No shop should be without at least one. It fits into any hacksaw frame (not included).
#875 blade. \$3.50 postpaid
Three for \$10.00



#861 SCHABLONENSCHEREN (double bladed stencil shears) Available after July 1st, 1970. Be a Schablonscherenneister! This scissors cuts out paper stencils and eliminates 1.75 m.m. of paper between the blades to allow for the lead came. Used by stained glass studios since early times, it is almost indispensable for any intricate pattern work.
\$21.00 postpaid.

#889 SHEET LEAD For silhouettes and other intricate exercises. A pure lead which will readily solder to comes. Easily formed or shaped for work on lempshades, etc. Usually painted black.
12" wide sheets only, sold per running foot, up to 6 feet long.
\$3.00 per running foot. Add for postage at the rate of 4 1/2 lbs. per running foot.

#890 LEAD WIRE 1/8" diameter pure lead wire for various decorative effects on stained glass ornaments.
5 foot length, 75¢ postpaid.

Perkins Reedcraft

*reedwork takes time.
that's probably why there are so many
cane bottom chairs sitting around with
the bottoms poked out.
my dad learned how to weave reeds a few years ago,
had a lot of trouble finding literature on the craft.
the perkins people sell reed and provide the newcomer
with good lessons on the basic weaves as well as
carrying a complete line of weaving materials.*

-jd

[Suggested by Judy Rock]

Catalog
free

from:
H. H. Perkins Company
228 Shelton Avenue
New Haven, Connecticut 06506

Glassworks

*studio equipment for glaziers, mavers, and gaffers...
kilns, furnaces, day tanks, benches, tables, blowpipes,
all hand built.*

-jd

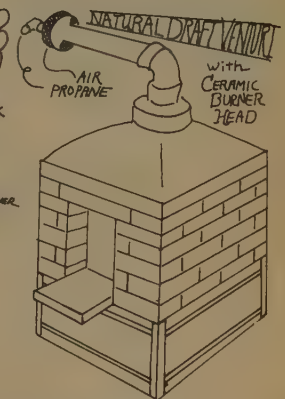
[Suggested by Bruce McDougal]



Catalog
free

from:
The Glassworks
Box 202
Warner, New Hampshire 03278

THE 1200 SPECIAL DAY TANK



BASIC UNIT
\$395.00 COMPLETE W/ PROPRANE BURNER HEAD TO MAKE GLASS



COMPLETE PROPRANE BURNER, A FANTASTIC NATURAL DRAFT SYSTEM EFFICIENT ECONOMICAL NO ELECTRIC REQUIRED CLEAN BURNING VERY HOT \$50.00

1" TAPERED SS HEAD, 3/8" CRS SHANK-53" BLOWPIPE \$26.50
PUNTS 1" TAPERED SS HEAD / 3/8" SHANK / 185" HANDPIPE TO ORDER SPECIFY LENGTH UP TO 60"

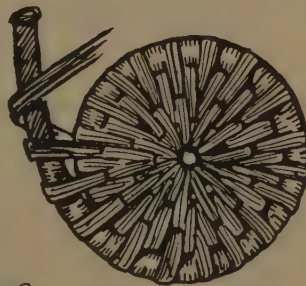
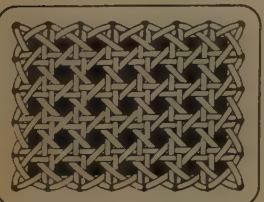
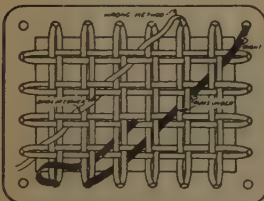
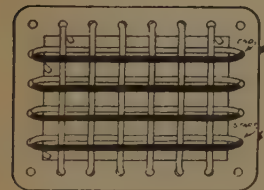
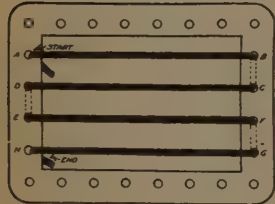
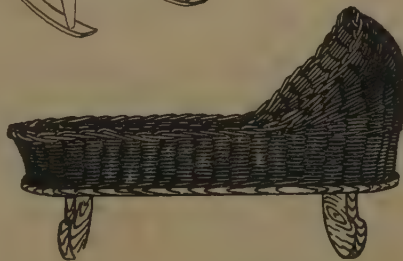


FIGURE C RAFFIA



No. 2—DOLLS CRADLE

Dolls cradle: made on 7 x 15 cradle base. This is a very attractive gift when lined. Base and rocker only \$1.25

Materials Complete, Postage 1 lb.
\$2.00—Doz. \$20.00

The Technique of Stained Glass

Alright, you dome builders, now that you've got the sunlight working for you, how about getting it to play for you. There's livelier routes to color than car tops. Stained glass technique, ancient and modern, is here in depth. List of suppliers given.

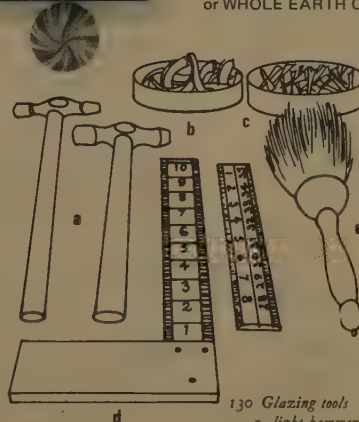
[Suggested by Stephen B. Siegal]



The Technique of Stained Glass
Patrick Reyntjens
1967; 192 pp.
\$15.00 postpaid

from:
Watson-Guptill Publications
165 West 46th Street
New York, N. Y. 10036

or WHOLE EARTH CATALOG



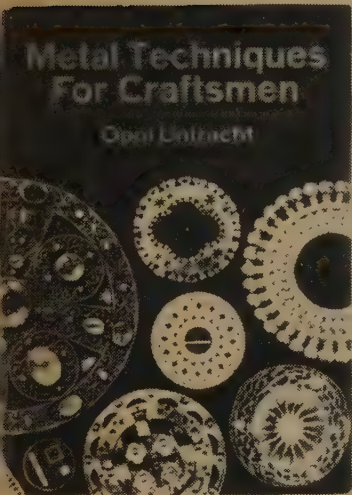
130 Glazing tools
a light hammers d set square
b lead scraps c brush
c farrier's ('horse-shoer's') nails



Metal Techniques for Craftsmen

If you read this book, you'll know more about metalworking than just about anybody you know. International in scope, it covers an incredible collection of techniques from many countries and cultures. The various techniques are presented with a complete set of instructions for each one and are illustrated by excellent photographs, often of native craftsmen doing their thing. Tools are described and illustrated in detail. Everything is described in detail. Reading this book will take you right up to that point where you'll have to do it awhile yourself to get into it any further. This is a real assembly of diverse information, some of it hard to find, and a metal-crafter-jeweler should be into new things within an hour of getting his hands on it. This is one of those rare and super books written by someone that wanted to lay his trip on others. Well worth the money. The "definitive text", as they say.

[Suggested by Claudio Marzollo.
Reviewed by J. Baldwin]



Metal Techniques for Craftsmen
Oppi Untracht
1968; 509 pp.
\$19.95 postpaid

from:
Doubleday & Company
501 Franklin
Garden City, New York 11531
or WHOLE EARTH CATALOG



A craftsman of Tanjore, India, securing an encrusted silver ornamental medallion on a brass plate in the "nagas" or "swami" process of metal decoration.

Forge welding is the oldest welding process. Wrought iron and mild steel can be welded in forging by heating the parts to be joined till they are brilliant white-hot and emitting sparks. The metal at this point has reached a condition of surface plasticity. The parts are then brought into contact quickly, on top of each other, and hammered together. They fuse into one unit. Butt joints can be welded by first upsetting the ends to be joined, to thicken them, then reheating the ends to welding temperature, placing them together, and hammering them. The original thickness is maintained. If the metal is absolutely clean, free of oil or cinder, no flux is necessary, because the slag in wrought iron acts as a flux. The force to be exerted by the hammer depends on the mass and size of the parts being joined.



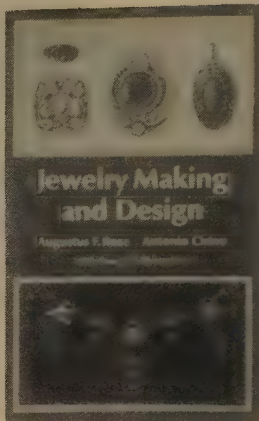
Sterling silver necklace utilizing 18-gauge metal, by Mary Ann Scherr. Length: 16 1/2 inches; each unit: 3 1/2 inches by 1/2 inch. The intaglio pattern was created with an etching solution of half nitric acid and half water and was then oxidized.



Jewelry Making and Design

superfloral middlefinger rock rings, grandma's brooches. reprint of design manual from about fifty years ago. studies in geometrical patterns and better yet, suggestions for lifting design from shell, bud, leaf, bug, snow crystal, finger, and so forth. fairly complete metalworking how-to illustrations and procedural techniques for modeling, casting, piercing, enameling, carving. cheap too.

-jd
[Suggested by Joseph R. Coelho]



Jewelry Making and Design
Augustus F. Rose and Antonio Cirino
1918. 67; 304 pp.

\$2.75 postpaid

from:
Dover Publications Inc.
180 Varick Street
New York, New York 10014

or WHOLE EARTH CATALOG

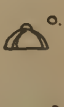


There are different ways of approaching the subject of jewelry making. Some begin by having the student or beginner take for the first problem one that calls for the use of wire bending and soldering. Others give a problem calling for the introduction of a variety of processes in one piece. Experience shows that the best and most satisfactory results are obtained both from the student's point of view and the consideration of the finished product when the student is led to advance from the simple problem to the more complex by a series of elementary problems carefully graded. The beginner has not only to learn the processes involved in the making of a piece of jewelry but also to master the various tools used and to learn the limitations of his material. Although the number of tools used in jewelry making are few, it seems best for the beginner to take them up one or two at a time and plan his problem accordingly.

The Processes involved in jewelry making are as follows: Sawing, Filing, Bending, Carving, Embossing or repousse, Soldering, Stone Setting, Polishing, Coloring, Pickling, Modeling, Casting, Annealing.



Minimum essential set of tools for jewelry making



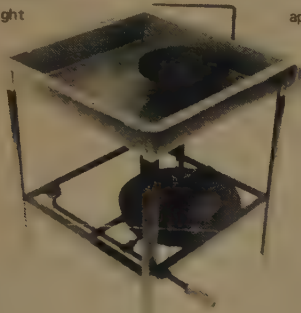
Wheels

Klopfenstein
brochure

free

from:
H. B. Klopfenstein & Sons
Route Two
Crestline, Ohio 44827

price \$175.00 f.o.b. Crestline, Ohio
reversible throwing head for making plaster bats with
a special band and locating slug for re-centering \$15.00
adjustable hip rest \$15.00
shipping weight approx. 240 lbs.



Brent

brochure

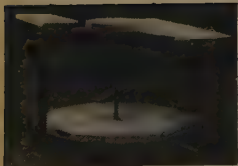
free

from:
Robert Brent Potter's Wheels
1101 Cedar Street
Santa Monica, CA 90405



	HP	Speed	
Model A	1/4	40-150	\$139.00
Model C	1/2	0-220	265.00
Model C kit			195.00
Kick Wheel			79.50
Kick Wheel kit			35.00

[Suggested by Mary Crawford]

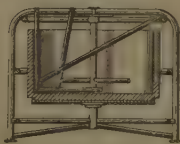


Kickwheel \$180 (unpainted)
205 (painted)

Soldner
brochure

free

from:
Soldner Pottery & Pottery Equipment
Box 917
Aspen, Colorado 81611



Mixer \$825

[Suggested by Jeff Schlanger]

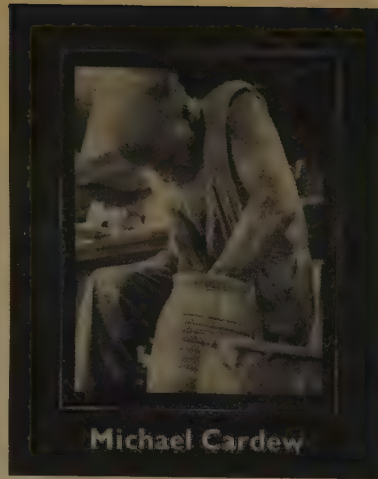
Pottery

*
Pioneer Pottery

Michael Cardew is a big gun, careful man, good potter, and the book is complete in a systems way. He starts in giving lessons in geology for potters, puts the reader's head down into the earth with the clay, and then runs through most of the materials tools techniques forms recipes and principles I've ever heard mentioned. An honest book, looks you right in the eye.

-jd

[Suggested by Jeff Schlanger]



Pioneer Pottery

Michael Cardew
1969; 327pp.

\$12.00 plus postage

from:
Blackwells
(for ordering instructions, see CATALOG page 81.)

Practical potters have always had an instinctive knowledge of clay, and were able to make good pots with it although they (like the rest of the world) did not really know what it was. But during the past forty years a great deal of fundamental research on clays has been done, throwing a flood of new light on a field in which previously there had only been fogs, obscurity, guesswork—and mud. Potters, it is true, cannot hope to be scientists; but unless we try to learn something about all this new knowledge, we shall remain for ever at the 'animistic' level, with no real enlightenment on the ancient problems of why some clays are unpredictable and temperamental, while others are reliable and cooperative.

Let us begin with Geochemistry. The Earth, the warm-hearted fertile *Magna Mater* in whose bosom we all live, has been described by one geochemist as 'a projectile of nickel steel, with a slaggy crust.' The general picture of the earth presented by geochemistry is a slightly kinder one than this, since it provides a hydrosphere, an atmosphere and even a 'biosphere' to clothe the slaggy crust—the lithosphere—with decent verdure. It is estimated (1924) that the upper ten miles of the lithosphere or crust consist of:

95 per cent igneous rocks
4 per cent shales
0.75 per cent sandstones
0.25 per cent limestones

Figure 11.7 Scotch wheel

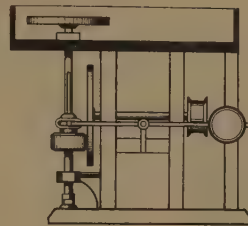


Figure 11.4 Rope wheel

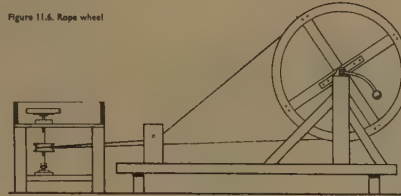


Figure A7.4 Ball-mill and frame (side view)

A. Jar. C. Plates. E. Plummer blocks.
B. Stopper. D. Bolts. F. Driving pulley (fast and loose).
G. Frame.

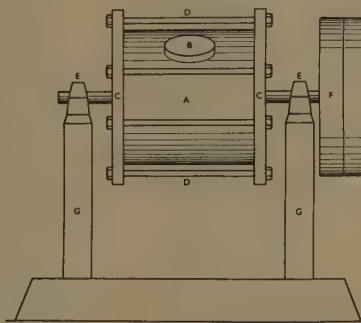
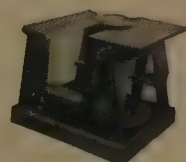


Figure 10.8 Two-chamber draught kiln (section)

I used the Pacific Woodcrafts (Lutweiler) wheel. Main goodie is the cast fiberglass flywheel that you can fill with about anything, pebbles, sand, water, to regulate the weight. Empty it and it weighs about five pounds. Whole wheel breaks down into components for easy transport.

-jd



Pacific
brochure

free

from:
Pacific Woodcrafts
P. O. Box 924
Berkeley, CA 94701

Kickwheels

Standard	\$ 96
Wide	106
Adjustable	116
Adjustable wide	121

Estrin
brochure

free

from:
Estrin Mfg. Ltd.
3651 Point Grey Road
Vancouver 8, B. C.
CANADA



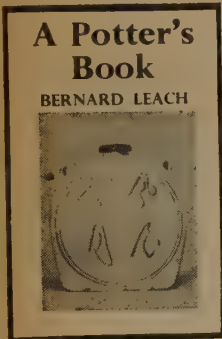
Basic wheel with 1/4 hp motor \$150
Less motor 109

Supplies

* A Potter's Book

we've carried this book as a little footnote to our pottery section. after talking with a few potters, and looking at the book a little, we've decided, i've decided, it has been decided, maybe it hasn't been decided, that this is the best all around pottery book. leach pretty well covers the field, with good emphasis on japanese techniques, particularly sound on glazes, ample diagrams, kiln plans, nice advice.

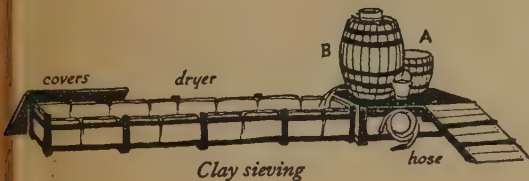
-jd



A Potter's Book
Bernard Leach
1967; 294pp.

\$8.75 postpaid

from:
Transatlantic Arts
Trade Department
North Village Green
Levittown, Long Island,
New York 11756



Clay sieving

This book is the outcome of thirty-three years' experience of making pots by hand processes in the Far East and in England. During twelve of those years I had unique opportunities of gaining an insight into the spirit and methods by which early Oriental pottery was made. Here I have attempted to state these simply and openly, and to relate them to our Western need, primarily for the sake of other potters who suffer inevitably from the almost entire loss of our own birthright of traditional craft lore. But this book is also intended for students and teachers, for lovers of good pots and sound craftsmanship, and finally for those to whom the cultural meeting of East and West is the prelude to a human society. Out of my dual experience I have tried to formulate a criterion by which good pots may be recognized in a manner similar to that by which an ever-changing but nevertheless continuous classic standard encourages the appreciation of fine architecture, painting, writing and music.

Raku has two disadvantages which should be mentioned together with those qualities which obviously recommend it to the artist, the craftsman and the school; it is porous when new, and it is comparatively fragile. With use the pores of the body and the crackle of the glaze gradually fill up, so that even a raku vase will eventually cease to leave a damp mark behind it even on a polished surface. Its fragility, due to low temperature firing, necessitates the making of pieces with fairly thick walls, handles, and spouts. For this reason it is not advisable to make thin table-ware raku. A harder preliminary firing of the biscuit will strengthen the body, but at a sacrifice of the peculiar soft character of the glaze and its crackle. The Japanese do make pottery of this kind, using soft coloured glazes over stoneware biscuit, and call it 'Kochi' (Cochin China ware), but it requires a kiln which will go to high temperatures.

St. Ives Round Kiln

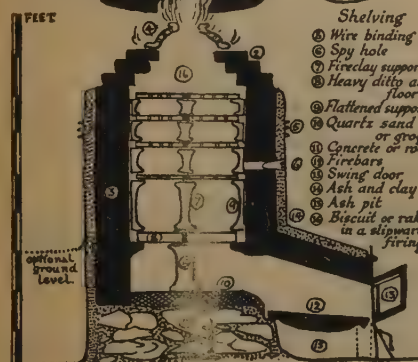
for biscuit, raku and slipware

- ① Hood
- ② Ring bricks
- ③ Firebricks
- ④ Perforated cover



Shelving

- ⑤ Wire binding
- ⑥ Spy hole
- ⑦ Fireclay supports
- ⑧ Heavy ditty and floor
- ⑨ Flattened supports
- ⑩ Quartz sand or grog
- ⑪ Concrete or rock
- ⑫ Firebars
- ⑬ Swing door
- ⑭ Ash and clay
- ⑮ Ash pit
- ⑯ Biscuit or raku in a slipware firing



St. Ives round, up-draught kiln

* Ceramic Supplies

most of this information was given to us by bruce mcdougal, who runs big creek pottery, davenport, california, 95017, his studio looks like a fine place to learn and work pottery.

-jd

You asked for some comments on pottery suppliers and gear: And I have some opinions, so here you are . . . The enclosed is a list of suppliers that I am more or less familiar with, some of whom I do business with regularly, others I just know about. There are many more good ones I am sure, and if I've missed any that's because I don't know about them.

-Bruce McDougal



Ceramics & Crafts Supply Co.
490 5th Street
San Francisco, 94107

Clays & Glazes (westwood—at better small lot prices than you can get from L.A.) Materials of all kinds. Lockerbie wheels. Write for catalog (free)

Leslie Ceramic Supply
1212 San Pablo
Berkeley, Ca. 94706

Clays, glazes, kilns, wheels, materials, molds, tools, An excellent all-around source in the east bay.

Thorley Pottery Supply
1183 Industrial Avenue
South Gate, Ca. 90280

Kiln shelves, and I don't know what else. An excellent source for fired clay shelves in large sizes that will take cone 10-11 reduction firings without trouble, at about 1/3 the cost of Silicon Carbide. Also excellent posts.

Electro Refractories
18765 Fibreglass Road
Huntington Beach, Ca. 92647

Also excellent kiln shelves that will go to c/10-11 at a fraction of Silicon Carbide. Ask for Comp 104. They do not have the range of large sizes that Thorley has. Compare prices in your size.

Pyro Engineering
200 South Palm
Alhambra, Ca. 91801

Thick slabs for floor plates, etc. (mine are 2" thick)—I don't know what else they have—I suspect shelves also, and etc.?

Denver Fire Clay Co.
3033 Blake Street
Denver, Colorado 80205

Complete line of kilns, wheels, glaze materials, etc. Excellent *small* power wheel. One of the original kiln builders. Bought out Dickenson years ago & now makes that kind also. Catalog (free)

Castle Clay Products, Inc.
1055 South Fox Street, Unit No. 2
Denver, Colorado 80223

Catalog free.

American Art Clay Co.
Indianapolis, Indiana 46200

An old company, making kilns, wheels, & selling all kinds of supplies. Oriented toward schools, their kilns are built massively & with all kinds of safety controls available to satisfy the most picky fire marshal. More expensive than some. Write for catalog (free)

The Craftool Co.
1 Industrial Road
Wood-Ridge, N.J. 07075

Tools for ceramics & many other crafts. Catalog (free)

Kemper Mfg. Co.
P.O. Box 545
Chino, California 91710

Kemper specializes in making hand tools for the potter & sculptor. They do a good job, have a wide selection, and offer quantity discounts for direct sale. Write for catalog (free)

Sculpture House
38 East 30th Street
New York, N.Y. 10016

Hand tools for sculptors & potters—a complete line. Catalog (free)

A.D. Alpine Inc.
353 Coral Circle
El Segundo, Ca. 90245

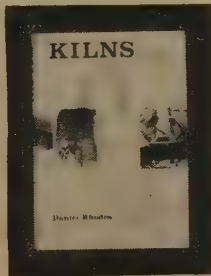
Kilns, mainly—also wheels and other ceramic gear. Their kilns have for many years been the poor potters friend, because they have sold so many that they are easier to find second hand than almost any other (at least in the west) They take a little experience to fire, but are excellent, reliable and long-lived. Catalog (free)

Duncan Ceramic Supply
5649 East Shields
Fresno, Ca. 93727

This is reported to be a remarkable place, well worth visiting if you are in Fresno. They have an excellent line of low fire glazes, and other supplies. I don't have their catalog, but they come highly recommended, and I think they probably have one. (free???)

Kilns

The definitive book on kiln construction and use. If you can build a pot you can build a kiln.

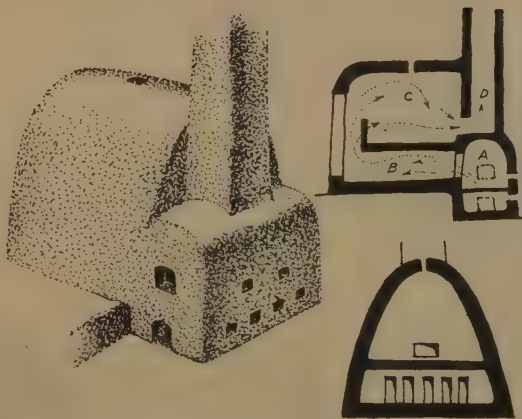


Kilns
Daniel Rhodes
1968; 240 pp.

\$10.00 postpaid

from:
Chilton Book Company
401 Walnut Street
Philadelphia, Pa. 19106

or WHOLE EARTH CATALOG



Design for a wood burning kiln with double crossdraft circulation. The bottom section is used for "Bizen" effects where a lot of flashing is desired, while the upper section is relatively free of direct flame and fly ash, and can be used for regular glazed wares.

Leather Braiding

met a guy named Joe Ria at a rodeo. he had a traveltrailer full of fancy braided horse gear done by Yaquis somewhere in the southwest, and was making his go as a middleman. beautiful work, mostly in rawhide. Bruce Grant has written other leatherwork books, among them, the cowboy horsegear book that has been carried in the catalog. i think this is his best book. deals with the fundamentals of cutting, braiding, knotting, lacing, and applique in leather.

-jd

Leather Braiding

Bruce Grant
1950; 173pp.

\$3.50 postpaid

from:
Cornell Maritime Press
Box 109
Cambridge Maryland 21613



Five-Part Inside Trick Braid—The five-part inside trick braid gives a pleasing effect of an over-two-and-under-two sequence. First cut a leather strap as shown in Fig. 1, being sure that the thongs are of equal width. There is some shrinkage when the strap is braided and allowance must be made for this. For instance, in a strap 1 1/4" wide and eight inches long, cut into five 1/4" thongs, the shrinkage will be about one inch.

The first step is shown in Fig. 2. Bring the right of the extreme left-hand thong, A, to the right over thongs B and C. Then take the right of the extreme right-hand thong, E, and bring it to the left over D and A. (Fig. 3). Now bring thong B on the extreme left over C and E to the right (Fig. 4), and pass thong D from right to left over A and B (Fig. 5).

In Fig. 6 two sequences are shown. First pass thong C on the extreme left to the right over thongs E and D. The upper portion of this braid must be held intact, and it will be seen that there have been five different passes. Next, take the bottom of the strap and pass the entire end through the opening between thongs C and D.

The braid should now look like the illustration in Fig. 7. Pay no attention to the tangled condition of the thongs at the bottom and continue to work at the top.

Take thong A on the extreme right and bring it to the left over thongs B and C (Fig. 8). Repeat this operation from each side four more times before the braid is turned from the bottom. For instance, bring the right thong and then the left thong to the center alternately, doing this five times with each thong.

The upper portion of the braid should now appear as in Fig. 9. Take the bottom of the braid shown in Fig. 9 and pass it through the part, as indicated, between thongs C and D. This lower part of the braid will then straighten itself out. Upon examining the top part, which must be held in place while the lower part is passed through, it will be apparent that there are exactly ten steps—that is, the right and left outer strands have been passed inward ten times.

The secret of this braid is that five passes are made each time before the bottom is turned.

When the braid reaches the point illustrated in Fig. 10 begin all over again. Pass thong A over B and C as was done in Fig. 1.

When the point corresponding to that in Fig. 6 is reached, turn in the bottom as before. Then continue as in Fig. 7 until the end. To make it easier to work at the bottom tighten up the braid at the top more than seems necessary. When the braid is completed loosen it until it is even throughout.



Osborne Tools

always wanted to be a saddlemaker. closest i've come so far is drugstore cowboy sandalmaker. try cutting a sole bend with a pocketknife, or punching holes with a screwdriver, and you begin to appreciate good leatherworking tools. osborne is the best.

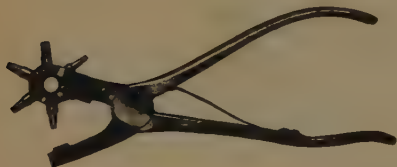
-jd

[suggested by Michael J. Green]

Catalog No 56

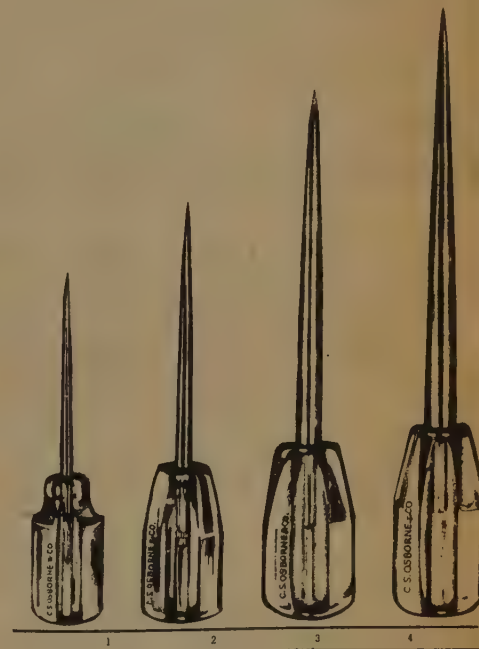
free

from:
C.S. Osborne and Company
125 Jersey Street
Harrison, New Jersey 07029



OSBORNE QUALITY EDGE TOOLS

<p>Common Edge Tools—Hardwood Handle.</p> <p>No. 125</p> <p>Max. ... 00 0 1 2 3 4 5 6</p> <p>Width, ins. 3/32 1/4 5/16 3/8 1/2 5/8 3/4 7/8 1 1 1/8</p>	<p>Biconnerte Edge Tools</p> <p>No. 127 1/2</p> <p>Max. ... 00 0 1 2 3 4</p> <p>Width, ins. 1 1 1/8 5/8 3/4 7/8 9/8 1 1 1/8 1 3/8</p>
<p>New Style Edge Tools</p> <p>No. 131</p> <p>Max. ... 0 1 2 3 4 5 6</p> <p>Width, ins. 1/8 1/4 3/8 1/2 5/8 3/4</p>	<p>A-entern style edge tool with lips bent up</p> <p>No. 133</p> <p>Size ... 0 1 2 3 4 5</p> <p>Inches ... 1/32 3/64 1/16 7/64 9/64 13/64</p>
<p>Beet Edge Tools</p> <p>No. 135</p> <p>Max. ... 0 1 2 3 4 5 6</p> <p>Width, inches ... 1/16 3/32 1/4 5/32 3/16 7/32 1/2</p>	<p>English Style Edge Tools</p> <p>No. 137</p> <p>Max. ... 0 1 2 3</p> <p>Width, inches ... 1/64 1/32 1/16 3/32</p>
<p>Saddlers' Carning Tools—For Crooving Leather</p> <p>No. 135</p> <p>Width, inches ... 1/8 3/16 1/4 5/16 3/8 7/16 1/2</p>	<p>Rein Trimming Tools—5/16" wide at points</p> <p>No. 137</p>



MacPherson Leathercraft Supplies

you've probably heard of tandy's. if you haven't, look them up in the yellow pages, (there is one close to you, if you are close enough in to have yellow pages.) well, macpherson's is like tandy, only a little better. some all-in-one do-it-yourself quicky professional type leathercraft kits, and some professional quality tools. they mailorder good leathers at decent prices. (ask for leather price lists) if nothing else, you can get an idea of what you will need.

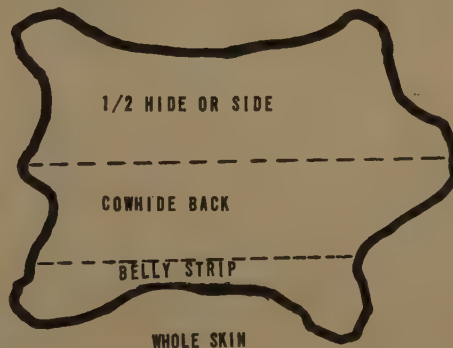
-jd

[suggested by Jack de Swart]

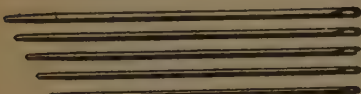
Catalog

free

from:
MacPherson Brothers
P.O. Box 395
San Francisco, California 94101



CURVED LEATHER NEEDLES
Ideal for sewing leather and other heavy materials
SIZES: 2", 2 1/2", 3", 3 1/2", 4", 5"
A-503 (sharp point)
A-501 (round point) 40¢ EA.



HARNES NEEDLES



CURVED TRIMMERS

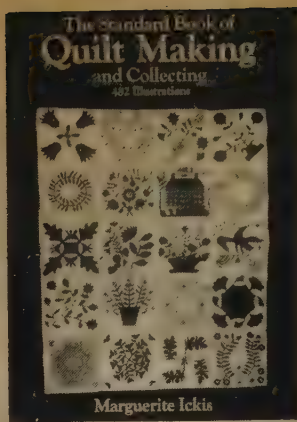


STRAIGHT TRIMMERS

*** The Standard Book of Quilt Making and Collecting**

I can remember the feelies, the little yarn tie-together things, on my baby quilt, and lying there, wherever, twisting them, between thumb and nose-picking finger, like I would a nipple, now. ah, quilts. this book is the only one I know of that really gets into quilting. illustration and patterns for about two hundred different beauties.

-jd



The Standard of Quilt Making and Collecting
Marguerite Ickis
1949; 59; 273pp.

\$3.00 postpaid

from:
Dover Publications, Inc.
180 Varick Street
New York, New York 10014

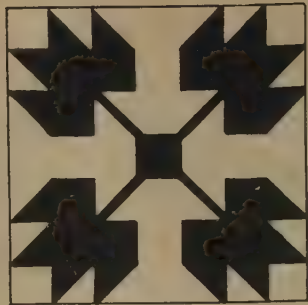
or **WHOLE EARTH CATALOG**

The first rule to observe in selecting material for a quilt is to combine the same kinds of fabrics together on any one design. For instance, linens and cottons go together, silks and satins, and so on, to achieve an over-all effect of regularity. If you choose a fabric that can be laundered, be sure that it is pre-shrunk and all the colors are fast. If you are in doubt, test a small piece in the tub.

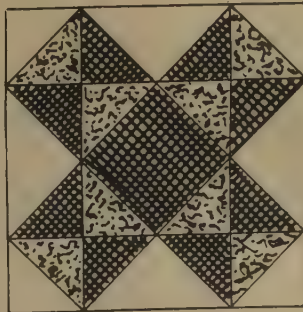
For your convenience in sewing, select a soft material, not too closely woven, both for the background and for the design part of your quilt. Closely woven cloth makes the needlework more difficult and is no stronger than thinner goods. There are more threads in each inch of cloth but the threads are of equal strength. Materials that are stiff because of being "treated" with a dressing are also difficult to work on.

In general, the following materials are a good selection for any patchwork quilts:
Body of quilt. Muslin (first choice), linen, broadcloth, cambric or percale.
Designs. Gingham, percale, caico, shirting, or broadcloth.

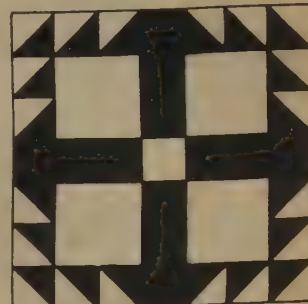
Of course you may make your quilt of silk, woolen, or sateen. The block background and pieces in the design must be of the same material. One last word of warning: measure all your materials carefully and be sure that you have too much rather than too little. Colors are exceedingly hard to match, even in the same shade from another bolt.



PEONY



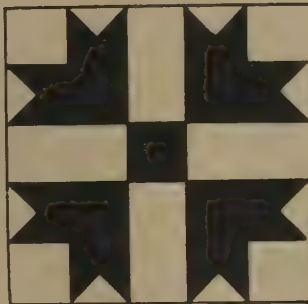
OLD TIPPECANOE



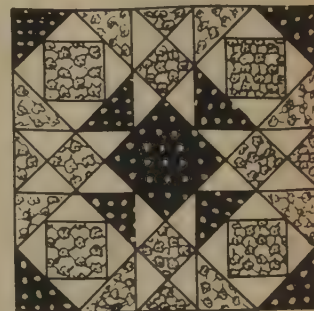
HEN AND CHICKENS



MORNING STAR



GOOSE TRACKS



JOSEPH'S COAT



RUNNING STITCH

*** Mountain Mist**

We discovered the beauty of quilts in our old farm house. You can make them from rags. Old coats and woolen skirts make special warm quilts. As a filler I use "Mountain Mist." It costs only \$2.50 for a cotton filler or \$5.00 for Dacron and it is washable. This same company also has a free catalogue of quilt patterns available. Personally I like to make up my own pattern, also, I don't sew the filler onto the quilt with an elaborate pattern. Instead I tie the quilt and filler together every 3 inches or so. This looks homey and colonial and also you don't need quilting frames to do it.

Quilting bees are great for community organizing. Everyone brings rags and swaps and sews a quilt together. Also, quilts can make you money on a commune with minimum expense.

[Suggested and Reviewed by Gundrun Scott]

Mountain Mist Quilt Patterns
Catalog No. 41

free

from:
The Stearns and Foster Co.
Cincinnati, Ohio 45215



THE COLORFUL MOUNTAIN MIST WRAPPER showing many quilt-block designs in full color, has one of our latest working quilt patterns on the back of the wrapper.



*** One Hundred Embroidery Stitches**

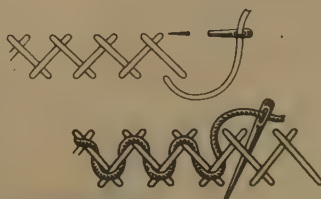
For those of you who want to learn how to do embroidery rather than gaze upon lovely & expensive color photographs of how someone else did it this is the best and only necessary booklet. It contains schematic diagrams of the most popular & useful stitches with short suggestions for their application to various embroidery situations. I've "taught" several people embroidery & my first lesson is "buy this book." with the lowest price-per-stitch rate of any text on the subject it is invaluable.

[Suggested and Reviewed by
Peter & Catherine Yronwode]

One Hundred Embroidery Stitches
Coats & Clark's Book No. 150

1964; 34pp. from:
Coats & Clark's Sales Corporation
430 Park Avenue, New York, New York 10022

\$.35



Herringbone Stitch and Threaded Herringbone Stitch

Bring the needle out on the lower line at the left side and insert on the upper line a little to the right, taking a small stitch to the left with the thread below the needle. Next, insert the needle on the lower line a little to the right and take a small stitch to the left with the thread above the needle. These two movements are worked throughout.

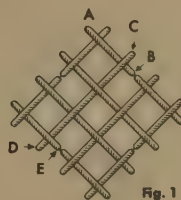


Fig. 1

Maitese Cross

This decorative motif is worked in a way similar to Interlacing Stitch. The inter-twining of the Herringbone Stitch must be worked accurately, otherwise the interlacing cannot be achieved. Bring the thread through at (A) and take a stitch

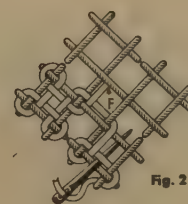


Fig. 2

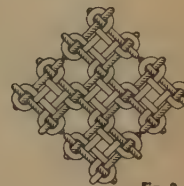


Fig. 3

from (B) to (C). Carry the thread from (C) to (D) and take a stitch from (D) to (E). Continue in this way, following Fig. 1, until the foundation is complete. Fig. 2 shows the method of interlacing, which begins at (F). Fig. 3 shows the complete motif.

★ **Handweaver and Craftsman**

the lapidary journal of weaverdom
lotta different yarn companies and loommakers advertise in
this quarterly, piles of books are mentioned, downhome
articles by people doing weaving emphasis on natural things.
fine forum.

-jd
[Suggested by Sandra Koechin]

**Handweaver
& Craftsman**

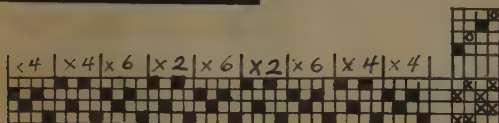


Handweaver and Craftsman
Mary Alice Smith, editor

\$5.00 per year (quarterly)

\$1.35 single copies

from:
Handweaver and Craftsman Inc.
10 McGovern Avenue
Lancaster, Pennsylvania



**SPINNING WHEEL
KIT SET**

This most attractive wheel in Southland
beech has many improvements. We have
been making spinning wheels for over 30
years. This is New Zealand's best selling
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lifetime service, geared
for speed winding. Tapered
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NEZ PERCE SHOW

The Palouse Hills Weaver's Guild of
Moscow, Idaho, and Pullman, Wash.,
has a traveling exhibit, Nez Perce
Indian Twining, which will be avail-
able starting fall 1970. There are
small samples of materials used; two
methods of starting a bag; two meth-
ods of adding design color, all in
wool; finishing warp ends; and two
completed cornhusk bags, one with
vegetable dyed cornhusks in design
and one with wool yarns in design. An

instruction sheet and material on
twined bags have been published by
the Denver Art Museum and the
Southwest Museum. Additional copies
of the instructions may be purchased
for 15 cents plus a stamped self
addressed envelope from Mrs. Earle
Connette, 903 East C St., Moscow,
Idaho 83843. Mrs. Connette is avail-
able for demonstrating and as a
speaker.

Guilds requesting the exhibition
are asked to include the week of their
meetings. This information may make

leaned back anchoring the warp and
providing the tension. Beside her
solid figure fell the red remainder of
the warp chain, another twenty
yards or so not yet unwound. The
red base of the fabric seemed alive
as it rolled through the women's
fingers to be transferred into the life
of new generations.

We inquired regarding the purpose
of the warp. Our attention was
directed to a young girl standing at
mid-point of the suspended warp
and the one word answer was, *Prika*.

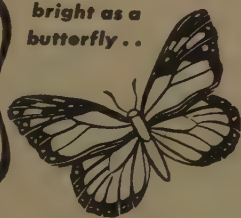
★ **Condon Woolen Mills**

Excellent source of high quality 100% virgin wool yarn
available in broad range of colors & sizes for use in weaving,
knitting, crocheting, rug hooking, afghans. Yarn sizes
include 1-ply single for weaving and knitting fine garments,
2-ply fine & medium (which both work beautifully for
card-weaving), 3-0ly, and 5-ply bulky for rug hooking &
heavy sweaters. Haru Bekker warns: "These yarns are fine
for weaving, but do not hold up as sock material, except
for the 5-ply yarns. Other knitted garments seem to wear
well." Service is good—orders usually arrive in 1-2 weeks.
Prices including duty are \$3/lb natural colors, \$3.20/lb
dyed.

[Suggested & Reviewed by Sarah Kahn]



bright as a
butterfly..



100% VIRGIN WOOL

Color Cards
free

from:
William Condon & Sons Woolen Mills
P. O. Box 129
Charlottetown, P. E. I.
CANADA

★ **Cambridge Wools Ltd.**

a new zealand wool source.

Catalog
free

from:
Cambridge Wools Ltd.
Box 2572
Auckland, New Zealand

WEAVING WOOL SCOURED:

Scoured Wool 46/50S Quality. Crossbred
4 to 5 inches.

AUST. 65c lb. U.S.A. 80c lb.
N.Z. 55c lb U.K. 6/- lb. CANADA 85c lb.

GREASY SPINNING WOOL:

As shorn from sheep. Medium quality (50 S)
5 to 7 inches.

AUST. 60c lb. U.S.A. 70c lb. N.Z. 50c lb
U.K. 5/- lb CANADA 75c lb.

★ **Spinning Wheels**

spinning wheels, carding machines

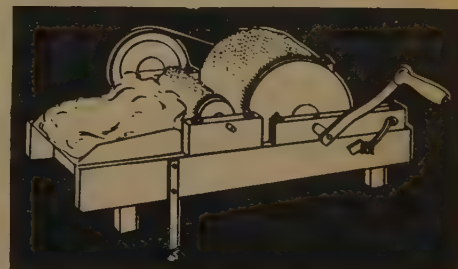
-jd

[Suggested by Wendy Insinger]

Information

free

from:
Made-Well Manufacturing Company
Sifton, Manitoba, Canada



New Key to Weaving

A one-book weaver's library. A comprehensive textbook covering all aspects of loom-weaving. Incredibly packed. Section on tapestry weaving alone is worth the cost of the book.

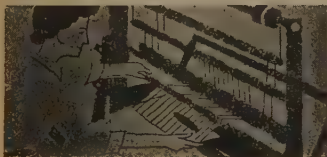
[Suggested by Victoria Becker]

New Key to Weaving
Mary Black
1945, 1949, 1957; 573 pp.

\$12.00 postpaid

from:
The Bruce Publishing Company
400 North Broadway
Milwaukee, Wis. 53201

or WHOLE EARTH CATALOG



Aiko's Art Materials Import

a source of batik dyes and tools, japanese artists supplies, books on oriental culture, collage papers, gardening literature.

-jd

[Suggested by Bob Rullman]

Catalog
\$25

from:
Aiko's Art Materials Import
714 North Wabach Avenue
Chicago, Illinois 60611



MIYAKO DIRECT DYE . . . A unit of 6 jars or more: \$3.30 (at \$55 a jar)

A chemical dye of acid substance in many brilliant colors mostly made up of sulfonic acid and readily soluble. In fine powder form, easily soluble and capable of penetration to many types of fabrics. Responds better in high temperature, therefore it is primarily used for boiling although it is also used successfully for cold-dyeing such as in the case of batik—then, the process should be completed by steaming. Comes in twenty one colors individually packed in small jars for convenient use. 2/3 oz. in a jar, enough to dye 3 yards of fabric in dark color.

Burnt Sienna, Pink, Yellow, Burnt Umber, Maroon, Orange, Olive, Red Violet, Sepia, Blue, Light Blue, Red, Crimson, Violet Ultramarine, Indigo, Green, Prussian Blue, Deep Madder, Black, Grey.

JAPANESE SHEARS

Made of high carbon steel
Just grip them in palm of your hand
Left or right as you please and press points together
Between thumb and bent index finger
No finger holes to get caught



JS . . . 4 1/4" long



Fezandie and Sperrie

colors.
aniline colors,
artists colors,
batik colors,
cement, even concrete colors.
tie dye your sidewalks.

-jd

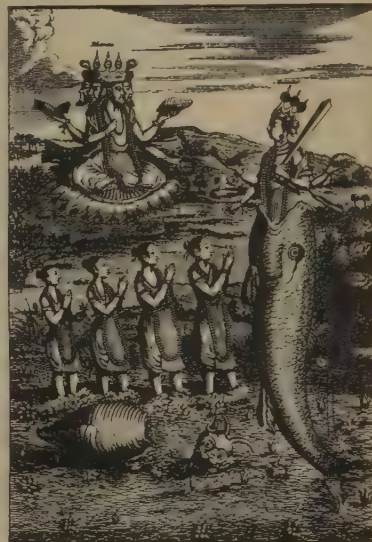
[Suggested by Janet Sherman]

Catalog
free

from:
Fezandie and Sperrie, Inc.
103 Lafayette Street
New York, New York 10013

		300lb.	100lb.	25lb.	1-24lb.
Black c. no. 950	Black	.25	.30	.35	.50
Blue c. no. 951	Brilliant	.55	.60	.65	.80
Blue c. no. 952	Turquoise	.75	.80	.85	1.00
Brown c. no. 953	Red mahogany	.25	.30	.35	.50
Brown c. no. 954	Brown mahogany	.25	.30	.35	.50
Brown c. no. 955	chocolate	.25	.30	.35	.50
Green c. no. 956	sage	.45	.50	.55	.70
Green c. no. 957	Sea	.75	.80	.85	1.00
Green c. no. 958	Grass	.75	.80	.85	1.00
Red c. no. 959	Brick	.20	.25	.30	.45
Red c. no. 960	Crimson	.25	.30	.35	.50
Red c. no. 961	Rose	.25	.30	.35	.50
Red c. no. 962	Maroon	.25	.30	.35	.50
Yellow c. no. 963	Light ochre	.20	.25	.30	.45
Yellow c. no. 964	Medium ochre	.20	.25	.30	.45
Yellow c. no. 965	Deep ochre	.20	.25	.30	.45
Yellow c. no. 966	Golden	.25	.30	.35	.50

Packed in fifty pound bags etc: For drum packing (100 lb. minimum) add 2 cents per lb.



Square Knot Handicraft Guide

by any other name, macramé, this book antedates the current enthusiasm about knotting homemade goodies, well illustrated, providing enough projects to get you through this winter, at least.

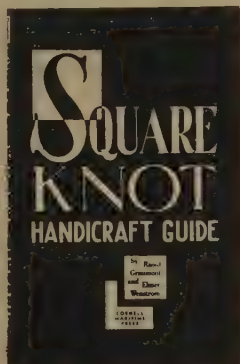
-jd

Square Knot Handicraft Guide
Raul Graumont and Elmer Wenstrom
1949; 212pp.

\$4.00 postpaid

from:
Cornell Maritime Press
Box 109
Cambridge, Maryland 21613

or WHOLE EARTH CATALOG



All the most practical and popular designs familiar to students the world over will be found in this volume. The methods of construction are in every case the most modern. Among the items listed are such articles as belts, handbags, mats, dog collars, leashes, shade pulls, whistle lanyards, knife lanyards, hat bands, head bands, pillowtops, doilies, key cases, men's ties, slippers, wrist watch straps, watch fobs, book marks, cigarette cases,

camera cases, and center pieces. Comb hangers, sennit braids and a variety of two- and three-strand knot work that is related to Square Knotting is also included.

Hard cotton line of 15-18 thread, French DMC #1 or linen con is sufficient for most types of Square Knot work. Gold and silver metallic cord can also be used to great advantage in the many attractive patterns for women's belts.

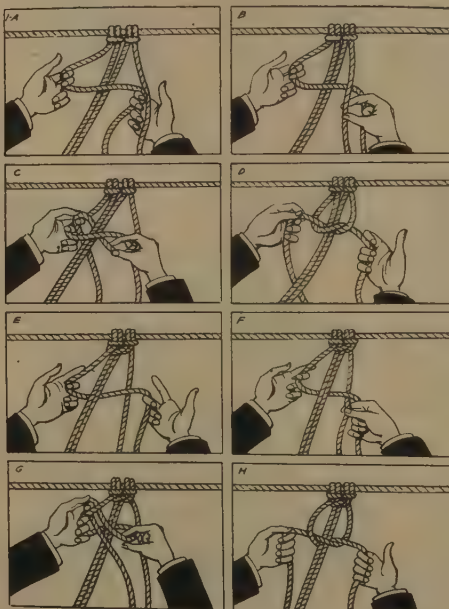


PLATE 1 Illustrated Construction of the Basic Square Knot

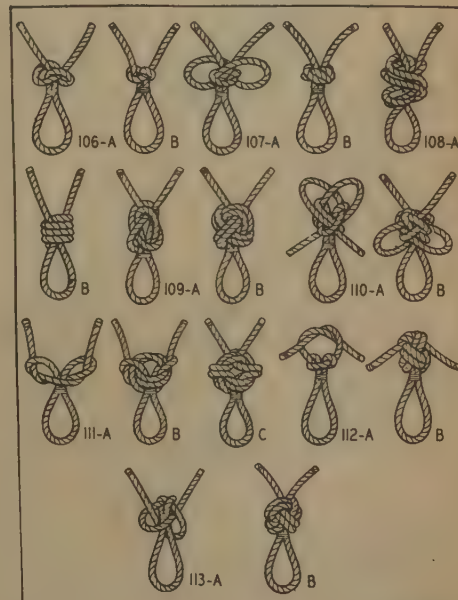
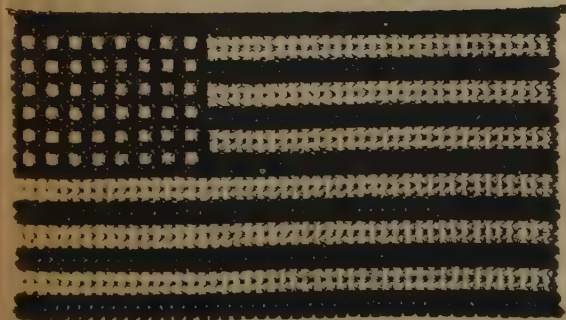


PLATE 43 Two-Strand Knots



★ Dominion Herb Distributors

*natural dyes
a complete selection,
cheap.
had trouble finding annatto seeds?*

-jd

[Suggested by Michael Wells]

**Catalog
free**

from:
Dominion Herb Distributors Inc.
61 St. Catherine Street West
Montreal 19, Quebec, Canada

	For Dyeing Fabrics		
	5 lbs.	1 lb.	½ lb.
Indigo roots	2.00	2.15	1.20
Madder roots	2.40	2.55	1.30
Cochineal	6.50	6.65	3.40
Alkanet roots	2.20	2.35	1.20
Logwood chips	1.25	1.40	.80
Cudbear	6.50	6.65	3.40
Quercitron bark (oak)	1.25	1.40	.80
Black walnut hulls	1.25	1.40	.80
Black walnut leaves	1.25	1.40	.30
Red santalwood chips	1.80	1.95	1.10
Henna leaves	1.40	1.55	.85
Tumeric (curcuma)	1.50	1.65	.90
Safflowers	2.85	3.00	1.60
Gum catechu (Cutch)	2.10	2.25	1.20
Butternut bark	1.00	1.15	.70
Blood root	3.60	3.75	2.00
Poke Berries	3.45	3.60	1.90
Fustic chips	.80	.95	.55
Annatto seeds	1.65	1.80	.95
Marigold petals (calendula)	3.60	3.75	2.00
Peach tree leaves	1.65	1.80	.95
Nutgalls (oxgalls)	3.45	3.60	1.95
Brazilwood chips	.85	1.00	.65
Osage orange chips	.90	1.05	.65
Ladies bedstraw	1.45	1.60	.90
Golden rod tops	.95	1.10	.70
Yellow dock root	1.65	1.80	1.00
Bayberry leaves	1.40	1.55	.85
Sumach berries	1.10	1.25	.75
Bracken tops	.90	1.05	.65
Gold thread root	12.50	12.85	7.00
Elder berries	2.70	2.85	1.55
Barberries	2.40	2.55	1.25
Greater celandine herb	1.50	1.65	.90
Ragweed herb	.90	1.05	.65
Yarrow tops	1.15	1.30	.75
Marguerite flowers	2.10	2.25	1.15
Nettle herb	1.30	1.45	.80
White pine bark	.95	1.10	.65
Sassafras bark	1.70	1.85	1.10
Spruce cones	.85	1.00	.60

Minimum quantity—½ lb.
POSTAGE: 50 cents per lb. extra
Above prices subject to change without notice

We have many other herbs, etc. suitable for dyeing fabrics, leather, wood, etc. etc.

Dye Plants and Dyeing

This book I consider about the best that is available on its subject and would make an excellent basic handbook for the beginner. It contains historical information as well as the basic steps to dyeing, recipes, and articles about dye plants from various regions and countries. So, no matter what part of the country you live in, you will find a variety of plants and recipes which you would be able to use. There is enough information in this book which should enable you to start your own dyeing and end up with satisfactory results... which is not true of all natural dye books. The one difficulty in using it, however, is that there is no index.

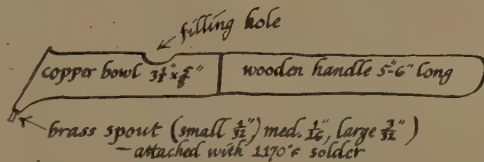
[Reviewed by Carole Beadle]

Dye Plants and Dyeing
100 pp.

\$1.25 postpaid

from:
Brooklyn Botanic Garden
Brooklyn, N. Y. 11225

or WHOLE EARTH CATALOG



*Julie Lewis & al wood make heavy-duty
tjantings by hand and sell them at
\$3.00 each plus postage - (minimum
order of three) or: \$2.50 each for
orders of six or more (plus postage).
all orders sent c.o.d. be sure to
specify how many of each size.
write to: 2219 Dwight Way, Berkeley, Calif.*

Tie and Dye

This is the only book on tie-and-dye that is available in this country. A few other books briefly discuss tie-and-dye, one of the simple means of fabric design, suitable for school-children, blah, blah, blah. But Ann Maile treats tie-and-dye like an ancient and complex folk art. Not that she is pedantic. She very clearly explains how to accomplish all the traditional and intricate effects possible with limited materials and free-flowing organic imagination. Tie and dye is such a simple art form that many people have already discovered it, and are doing it without any books to tell them how. So why buy a book?

You can buy bolts of machine printed tie and dyed drip proof, smear dry never iron cotton... pretty far out. But the question isn't to be or not to be far out. The question is whether you are into the craft of tie and dye in order to create beautiful objects or just weird artifacts. If you want to really get into it, the book seems really useful and inspiring. If not—well...

[Reviewed by Terry Gunesch.
Suggested by Madge Gleason.]

Tie and Dye
Anne Maile
1963... 1969; 182 pp.

\$6.50 postpaid

from:
Taplinger Publishing Co., Inc.
29 East Tenth Street
New York, N. Y. 10003

or WHOLE EARTH CATALOG



Textured squares

Outlining Shapes in Oversewing

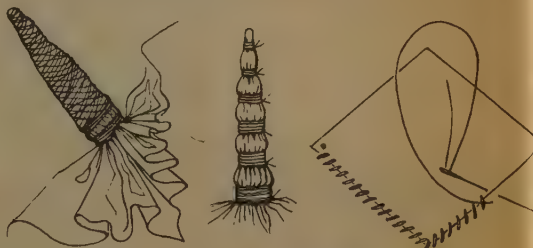
Oversewing or whipping stitch can be used very successfully to outline any shape drawn on the sample. Whether further stitching or binding is added within the shape is a matter of choice. This way of outlining does not bunch the cloth up to quite the same extent as a running stitch outline. The scale of the actual stitching may be quite small, about 1/8 in. across, using single or double Sykko, or up to 1/2 in. wide, with double thread. The width of the stitches, that is the amount of cloth picked up on the needle, each time it is inserted into the cloth, decides the thickness of the outline, and their density determines the tone. For instance, a clear-cut resist outline will need more stitches per inch than a medium toned contour.

Variation in the thickness and tone of the lines should be exploited in working out designs.

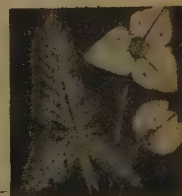
It is almost impossible to get fine delicate designs on coarse fabric, but, on the other hand, with fine cloth any degree of fineness or coarseness in a pattern is possible.

Method

Draw or trace the design on cloth. Decide which are to be made thick dominant lines and which not so outstanding. With the appropriate cotton or thread, single or double, knotted at one end, begin to sew a little to one side of the line. Take each stitch over and under it at any angle between 30 deg. and 60 deg.



SEWING TECHNIQUE OR TRITIK



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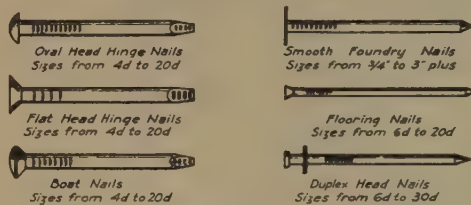
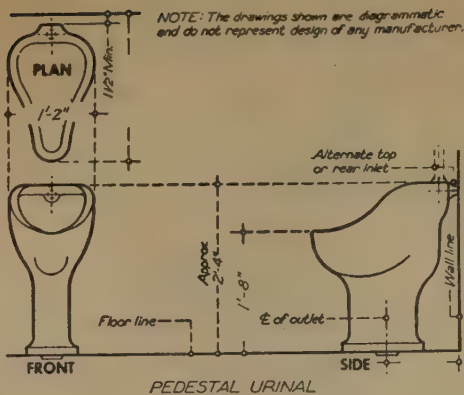
-jd

**Information
free**

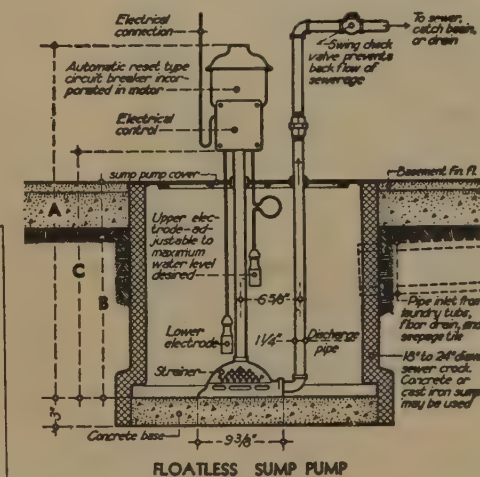
from:
Tashiro Hardware Co.
109-113 Prefontaine Place
Seattle, Washington 98104



PEDESTAL AND TROUGH URINALS



DIMENSIONS OF SUMP PUMPS



FLOATLESS SUMP PUMP

MARBLE CEMENT

This is a good cement for mending marble or any other kind of stone:

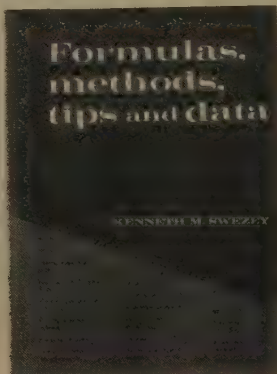
Litharge 20 parts
Quicklime 1 part
Boiled Linseed Oil enough

Mix the lime and litharge thoroughly. Then work the linseed oil into this mixture to form a thick paste. It sets in a few hours, having the appearance of light stone.

Another marble cement can be made of the following:

Portland cement 12 parts
Hydrated lime 6 parts
Fine sand 6 parts
Kieselguhr 1 part
Sodium silicate solution enough

Mix the dry ingredients thoroughly and then mix into a thick paste with the sodium silicate. The object to be cemented need not be warmed. The cement will set within 24 hours and be as hard as the original stone.



Formulas,
methods,
tips and data

KENNETH M. SWEZEY

Henley's

Henley's was first published in 1907, and is a fascinating mixture of obsolete and still useful formulas and processes as advertised. Some are useful but obscure (formulas for fire-eating); Some are useful but who cares? (formulas for furniture glue not as good as what you can buy); Some are frighteningly incomplete (the section on explosives); Some are bizarre (a hair pomade containing Spanish Fly); Some you can get better elsewhere (ceramic glazes); Some are funny (remove frost from windows by swabbing them with sulfuric acid); Many brews require chemicals not easily available, but sources are given (mostly in New York) and there is a glossary of outmoded terms. Some of the formulas might be of historical interest (how to make harness grease). It's not a pretty book; every copy I've seen has printing flaws, probably due to worn plates. I've been happily thumbing through my copy now and then for many years. I've never used anything from it.

[Suggested and Reviewed by J. Baldwin]



Henley's
1907... 1957; 867 pp.

\$6.95 postpaid

from:
Embassy Sales
Box 67
East Elmhurst, New York 11369

or WHOLE EARTH CATALOG

Anti-Freezing Solution for Automobiles.—In the average size (30 qt.) automobile engine radiator, if 1 1/2 gallons of ethylene glycol is used, together with 10 oz. of sodium chromate, the radiator and engine block will be protected to -20° F., and the cooling system will at the same time be protected against destruction by corrosion.

Anti-Freezing, Non-Corrosive Solution.—A solution for water-jackets on gas engines that will not freeze at any temperature above 30° below zero (F.) may be made by combining 100 parts of water, by weight, with 75 parts of carbonate potash and 50 parts of glycerine. This solution is non-corrosive and will remain perfectly liquid at all temperatures above its congealing point.

Anti-Frost Solution.—As an excellent remedy against the freezing of shop windows, apply a mixture consisting of 55 parts of glycerine dissolved in 1,000 parts of 62 per cent alcohol, containing, to improve the odor, some oil of amber. As soon as the mixture clarifies, it is rubbed over the inner surface of the glass. This treatment, it is claimed, not only prevents the formation of frost, but also stops sweating.

FIRE EXTINGUISHER (For Automobile):
Mix well together:
98 Parts of Carbonate of Soda
2 Parts of Oxide of Iron

When this mixture is thrown on a fire carbonic gas is liberated. This gas being heavier than air, smothers the fire.

RED FOR WOOL. For 40 pound of goods, make a tolerably thick paste of lac dye and sulphuric acid, and allow it to stand for a day. Then take tartar, 4 pounds, tin liquor, 2 pounds 8 ounces, & 3 pounds of the paste; make a hot bath with sufficient water, and enter the goods for 1/2 hour; afterwards carefully rinse and dry.

BASIC SOAP FORMULA. To make 9 pounds of pure, hard, smooth soap suitable for toilet, laundry, or soap flakes, follow this simple recipe:

Cold water	2 1/2 pints
Pure flake lye	1 13-oz. can
Clean fat (tallow or lard, or combination)	6 pounds
6 pounds of fat is about	
6 3/4 pints of liquid fat.	

Slowly pour the lye into the water in a Pyrex, iron, or enamel vessel (Caution: Don't spill lye solution on your skin, clothing, or furnishings, as it is extremely caustic). Stir until the lye is completely dissolved. Then let it cool to the correct temperature as shown in the table to follow.

Melt fat to clear liquid and let cool to correct temperature as shown in table, or until the fat offers resistance to the spoon. Stir occasionally to prevent crystals from forming. Pour the lye solution into the fat in a thin, steady stream with slow, even stirring. (Rapid addition of lye solution or hard stirring is apt to cause a separation.) A honey-like consistency is formed which becomes thick in from 10 to 20 minutes.

Pour the thickened mixture into a wooden box that has been soaked in water and lined with a clean cotton cloth wet in water and wrung nearly dry. Place in a protecting pan. Cover with a board or cardboard, then with an old rug or blanket to retain the heat while it is texturing out. Leave it alone for 24 hours.

To remove the soap from the mold, lift it by the ends of the overhanging cotton lining. Cut into bars by wrapping the soap with a fine wire and pulling the wire through. Place so air can reach it, but avoid drafts and cold. Aging improves soap. In 10 to 14 days it is ready for use.

TEMPERATURE TABLE. Follow these temperatures closely:

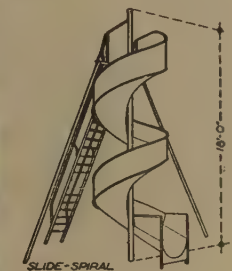
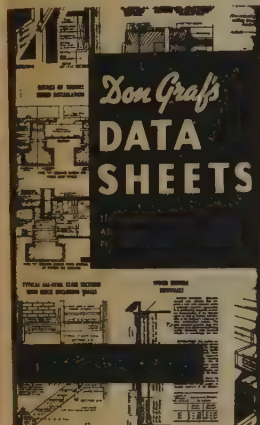
Type of fat	Temp. of fat	Temp. of lye sol.
Sweet lard or other soft fat	98 degrees F	77 degrees F
Half lard and tallow	105 degrees F	83 degrees F
All tallow	125 degrees F	93 degrees F

Don Graf's Data Sheets

A collection of specific design information by an architect on the job in the 1930's. It includes tables and graphs of loads, stresses, estimates; oblique and sectional drawings of assemblies; specialized floor plans; all useful for solving design problems. Also many references for architectural drafting: various alphabet scripts, straight-edge and compass compass constructions spelling guide etc.

If you are designing your own house you can find data for example on: the size footings required by a specific soil composition and fill; safe loads for a variety of wood joists, the layout for a septic tank; termite control methods, adequate wiring for specific appliances; the correct relation of chimney flue area and chimney height. However much of the material here is for designing basic community structures: school, office, recreation area, hospital. Except that information on the semi-experimental building materials (ferrocement urethane foam) is excluded this is a complete expression of its form. Its a compact, portable volume, easy to carry in one hand. A reference tool for the construction site as well as the office.

[Reviewed by Doug Gunesch]



Don Graf's Data Sheets
Don Graf
1944; 49; 809pp.

\$10.95 postpaid

from:
Van Nostrand-Reinhold Company
450 West 33rd Street
New York, New York 10001

Formulas, Methods, Tips and Data

Richard told me to rub salt on poison oak contamination; it hurts like hell for a while while the salt absorbs what otherwise hurts & irritates you for days. Although Swezey hadn't heard of this remedy he anticipates the plague of poison plants with a dandy recipe: dissolve 1 oz ferric chloride in 8 oz. water, add 5 oz. glycerin and 7 oz. ethyl rubbing alcohol and mix thoroughly. This you anoint yourself with before possible exposure to poison ivy or oak. Such cookbook chemistry abounds in F.M.T. & D. Some of the suggestions take more operations (measuring mixing heating) cost more money, involve more hassle (chemicals not always available) than you usually allow for common household items, however, if you're no longer living in a place where its a barefoot walk to the mass product market, or if youre place of mind distinguishes between availability and virtue then heres a book of simple recipes you might dig.

Toothpaste, soap, detergent, chemical cleaners for drain pipe & toilet bowl; paint stripper, radiator quick flush, paints, dyes all have cookbook, electric mixer & stove & mixing bowl behind their shiney marketable exteriors. You eliminate several steps in the cycle between your natural resources and your products when you brew them at home. Some things (like soap) can be better quality than you buy. Some are less expensive. Unties emerge at the level of chemical ingredients which are not at all visible in the supermarket. And even if you go back to shelf-ware at some point in the future you do so with different eyes.

[Reviewed by Doug Gunesch]

Formulas, Methods, Tips and Data
for Home and Workshop
Kenneth M. Swezey
1969; 691pp.

\$7.95 postpaid

from:
Harper and Row Publishers
49 East 33rd Street
New York, New York 10016

The Art of Blacksmithing

A warm book that makes me want to learn blacksmithing. Bealer presents the history and methods of smithing in a fashion very useful to a person learning the trade. An excellent coverage of tools, most to be made by the smith himself. Bealer collected this material from many old smiths and then tried it himself—in his own forge.

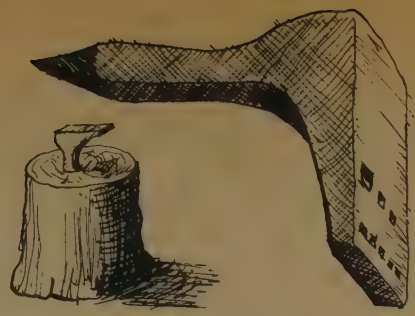
[Reviewed by Fred Richardson]

The Art of Blacksmithing
Alex W. Bealer
1969; 425 pp.

\$10.00 postpaid

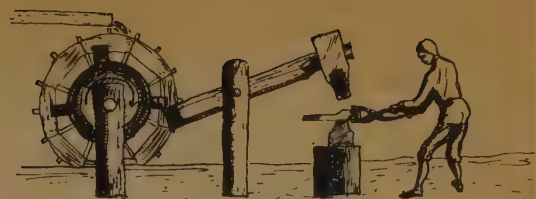
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Nail maker's stake anvil

There is a school of blacksmithing at:
Turley Forge
Camino Alito
Santa Fe, New Mexico 87501
\$300 tuition for 6-week course.



The principle of the water-operated trip hammer

Generally, I have tried to describe and illustrate only the fundamental techniques of the trade, and show how these techniques were used on a few familiar items. I hope that others may find my material interesting enough to acquire the tools of the smith and actually practice his techniques to the point that some of the ancient techniques and tools will be rediscovered for the benefit of modern man. If the ancient aurochs can be reconstituted through selective breeding of modern domestic cattle, it seems possible that the ancient smith may be waiting within a few modern men.

Knots

there must be some reason why it takes a kid so long to learn to tie a bowknot in shoelaces.

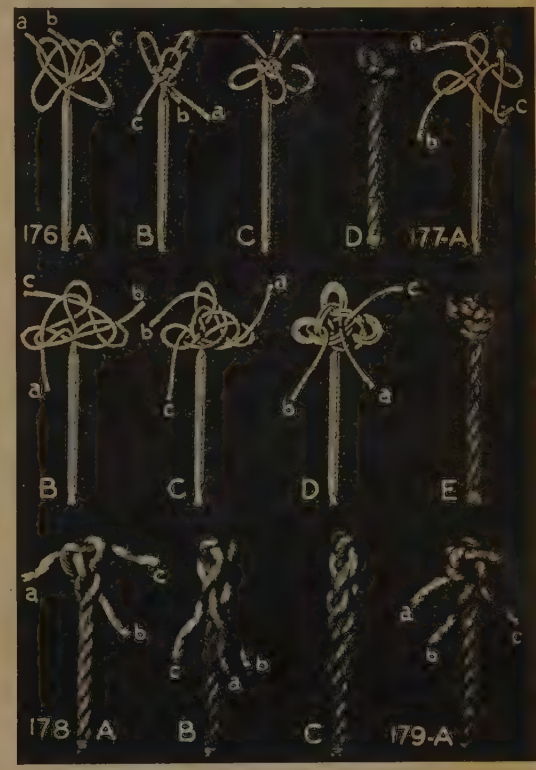
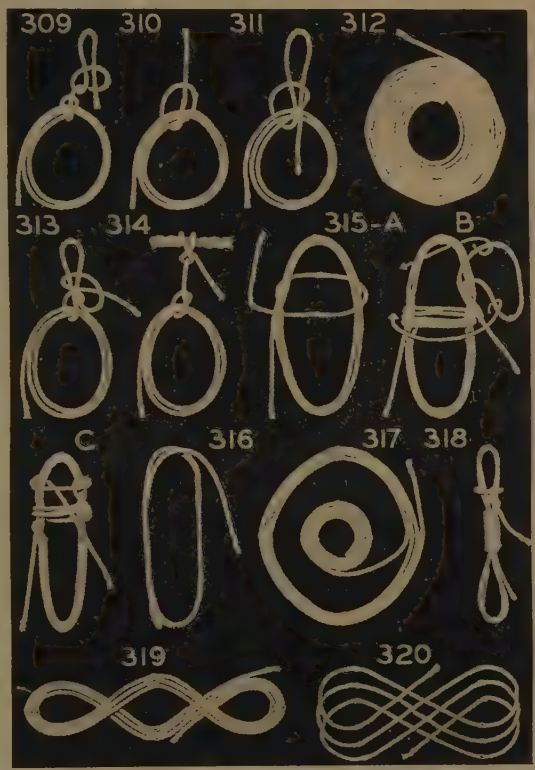
-jd

Handbook of Knots
Raoul Graumont
1945; 194 pp.; 428 good knots

\$1.75 postpaid

from:
Cornell Maritime Press, Inc.
Box 109
Cambridge, Md. 21613

or WHOLE EARTH CATALOG



Whittling and Woodcarving

remember sitting by the monkeycage at the alliance zoo, (two male spidermonkeys with piles) and watching a gandydancer (must have been a gandy . . . wasn't an indian, it was the middle of the day, and he wasn't at work) whittling on a chunk of two by four, it took him about two hours to carve it down into a cage with three balls locked inside. i've tried whittling away montana nights. turned out a double-ended wooden spoon and made the bandaid people thirty cents richer. should've read the book.

-jd



Whittling and Woodcarving
E.J. Tangerman
1936, 62, 293 pp.

\$2.00 postpaid

from:
Dover Publications Inc.
180 Varick Street
New York, New York 10014

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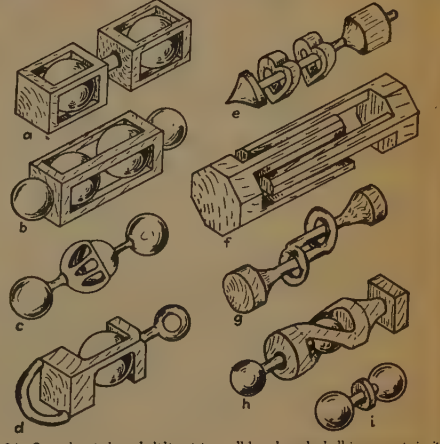
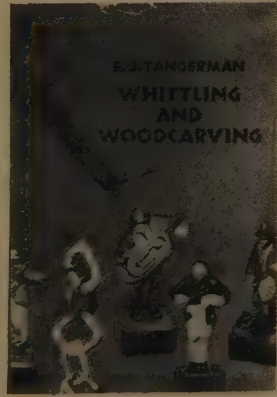
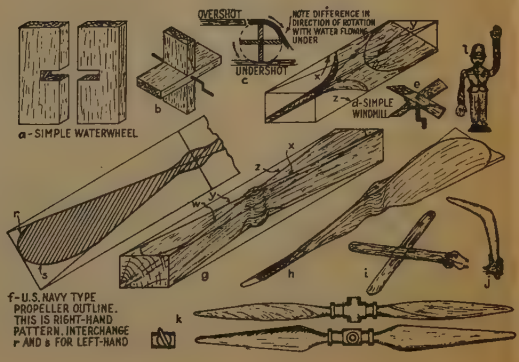


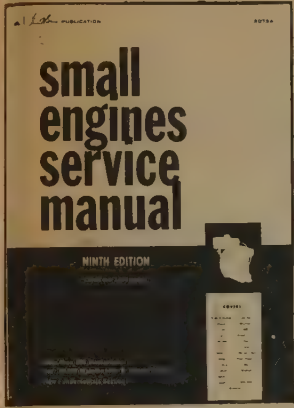
FIG. 94 - Several swivels and sliding joints, all based on the ball-in-a-cage principle



Small Engines Service Manual

pretty complete diagrams on repair of all types of small gasoline engines. if your chainsaw is lugging down, your pump sputtering, your washingmachine clunking, your lawnmower rusting away, this book will help.

-jd



Small Engine Service Manual
1969; 328 pp.

\$4.95 postpaid

from:
Bobbs-Merrill Co., Inc.
4300 West 62nd Street
Indianapolis, Indiana 46268

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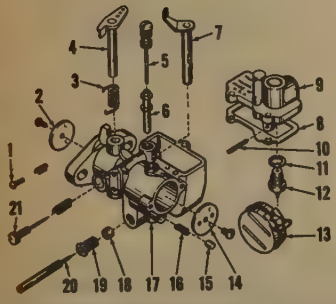


Fig. T3—Exploded view of typical Tillotson carburetor.

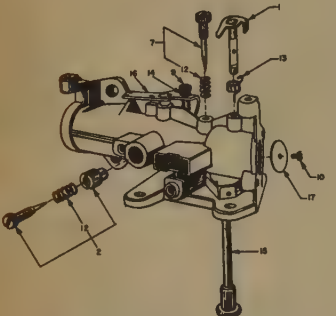


Fig. CL64—Exploded view of Clinton suction lift carburetor. On late production models, idle adjustment screw is threaded directly into carburetor body and does not have the threaded bushing shown. Choke disc (17) and throttle disc (not shown) may be attached with one screw as shown although later models have two holes for attaching screws in each disc and shaft.

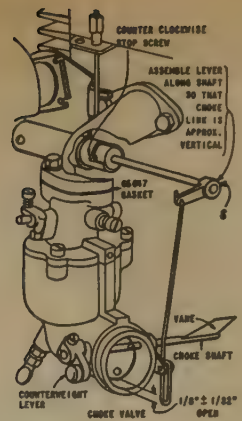


Fig. B63—Typical B&S automatic choke unit in "Cold" position.

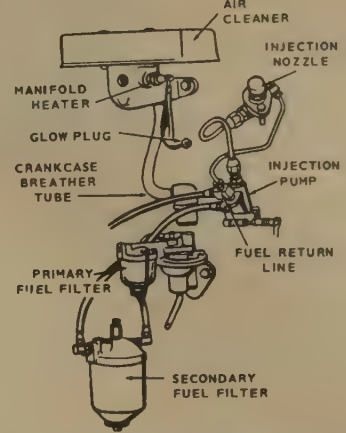


Fig. 2—Schematic view of diesel fuel system showing component parts.

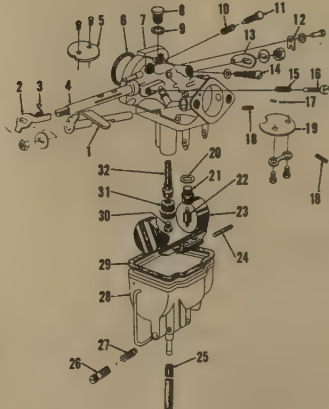


Fig. HN1-1—Exploded view of the Keihin float type carburetor used on Honda industrial engines. Refer to Fig. HN1-2 for cross-sectional view of carburetor, and to Fig. HN1-3 for view showing method of checking float level adjustment.

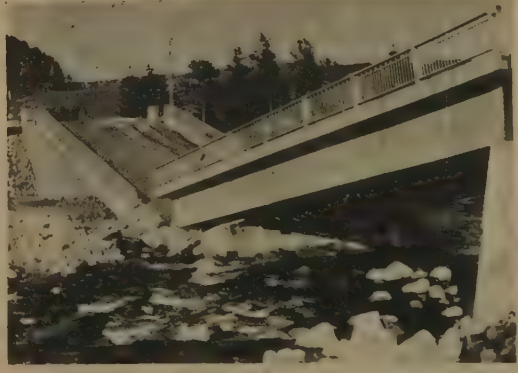
Adhesive Engineering Company

these guys are doing what construction people never figured could be done, they take structures like collapsed concrete bridges, jack them back into place, inject some adhesive, and the bridge is stronger than before it collapsed. They print a pamphlet called Construction Adhesives Coatings and Sealants, and they provide information and survey to about every possible application of industrial gluing. alan kalker suggested it, through herb grubb. alan's idea was that there might be an application here for prepped concrete dome sections. just pour the sections, hoist them inplace, and stick them together.

-jd

Information free

from:
Adhesive Engineering Company
1411 Industrial Road
San Carlos, California 94070



Harry M. Smith

J.D. says it must be a good company—its got a good name. Smith was first; You can tell the extent of your crime by the amount your name has changed.

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-FR

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Belmont, California 94002

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No. 193 Mauser Stainless Steel Vernier Caliper



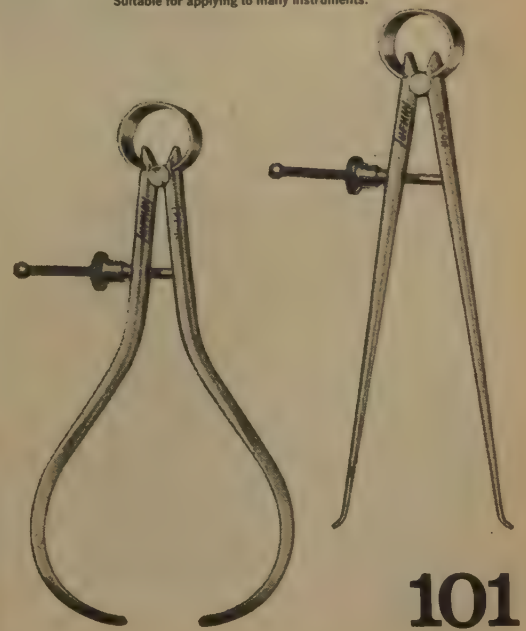
BULLSEYE MACHINIST LEVELS



No. 500 ... \$1.69 1" Round Chrome Plated Bullseye Level
Small and handy ... a multitude of uses!
With holes — can be screwed down.

No. 501 — 1 1/2", otherwise same as above ... \$2.95

Suitable for applying to many instruments.



Nomadics

The Complete Walker

Some of them old boys are into making houses out of chicken wire and condoms. Some of them can gather you a salad right off the forest floor. Some can make you a computer out of old Stromberg-Carlson radio parts and have enough wire and tubes left over for two laser death rays and a UFO. But Colin is into walking. His two previous books are mainly about walks: In *The Thousand Mile Summer* he tells about one he took up the entire Sierra range, and in *The Man Who Walked Through Time*, he walks the whole Grand Canyon. This one is about walking, not walks. It's not full of lore and woodsiness. It doesn't tell you how to get back to nature, or cast civilization from your back and wander out with a Bowie knife and a jock-strap. It gives a little walk philosophy, and then proceeds to discuss, in just the right detail, how to put a nice little well-equipped house and its fittings on your back, how to be able to go out and walk for a long time without having to come back for more stuff.

[Reviewed by Roland Jacopetti]

The Complete Walker

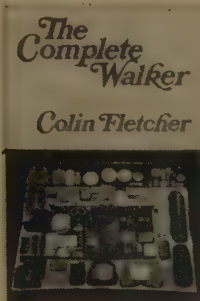
Colin Fletcher
1969; 353 pp.

\$8.18 postpaid

from:
Alfred A Knopf, Inc.
33 West 60th Street
New York, New York 10023

or \$7.95 postpaid

from WHOLE EARTH CATALOG



The 10 Bushcraft Books

... it's sort of a how-to-do-it-in-Australia, which turned me off at first until I read it a little more thoroughly. The problem with most books on this subject which are available in this country is that they are basically dilettante's manuals; they tell you how to live in the open for a week or two, but always presuppose that sooner or later you're going to go back to your Telegraph Hill apartment and take a nice hot shower. Australia, however, is a different scene, more like the U.S. a hundred years ago, when quite large numbers of people were accustomed, for various reasons, to living out of doors for most of the year. And that, I take it, is what more and more of our brothers and sisters are doing or thinking about doing (or have to do.)

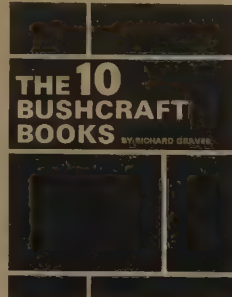
[Suggested and Reviewed by Roland]

The Ten Bushcraft Books

Richard Graves
300pp.

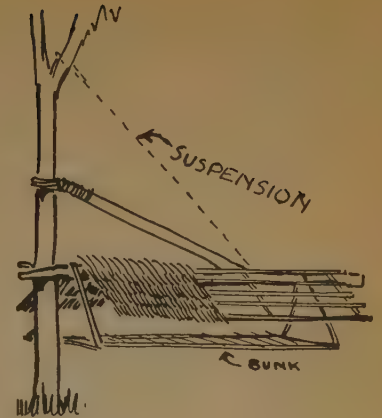
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from:
Dymock's Book Arcade Ltd.
Sydney 2000, Australia



THE 10 BUSHCRAFT BOOKS are:

- | | |
|--------------------------|---------------------------|
| Book 1. Ropes & Cords | Book 6. Knots & Lashings |
| Book 2. Huts & Thatching | Book 7. Tracks & Lures |
| Book 3. Campcraft | Book 8. Snares & Traps |
| Book 4. Food & Water | Book 9. Travel & Gear |
| Book 5. Firemaking | Book 10. Time & Direction |



Nature lovers will contend that trapping is cruel and unnecessary. Undoubtedly this is true of much of the trapping which takes place now, and has taken place in the past. Trapping for the skins is cruel, wasteful and not in any way productive of good. Similarly in other countries trapping of animals for the pelts threatened whole species of wildlife with extinction.

The general run of mechanical trapping is extremely cruel. Most animal traps are similar to the common rabbit trap. A device with two steel jaws that clamp onto an animal's leg generally breaks it, and holds the creature in agony until it is killed, possibly hours later, by the trapper.

These traps are not discriminatory. Protected animals and even birds are caught in rabbit traps set near warrens by river banks. Pets, too, are caught and their legs broken so they either have to be destroyed or left maimed for life. Trapping of this nature is cruel and wasteful.

Trapping can be humane, and need not in any way cause suffering or extreme distress to the wild animal. Pen and box type traps can be used to catch animals alive. These type of traps cause the animals no discomfort or pain. Other types of traps such as logfalls kill instantly. The wild creature is not left in lingering agony for hours. When it touches the bait, death is merciful, and instant.

The Way of the White Clouds

*pilgrims are religious nomads,
people who go with a purpose,
think as they go,
move for a reason.
they have constancy in flux,
patterns in variety,
knowledge of the void.
this is the story of a nomad in the mountains,
a buddhist pilgrim in tibet.*

-jd
(suggested by pam)

The Way of the White Clouds

Lama Anagarika Govinda
1966; 70 305pp.

\$2.95 postpaid

from:
Shambala Publications
2010 Seventh Street
Berkeley, California 94710

or WHOLE EARTH CATALOG



To see the greatness of a mountain, one must keep one's distance; to understand its form, one must move around it; to experience its moods, one must see it at sunrise and sunset, at noon and at midnight, in sun and in rain, in snow and in storm, in summer and in winter and in all the other seasons. He who can see the mountain like this comes near to the life of the mountain, a life that is as intense and varied as that of a human being. Mountains grow and decay, they breathe and pulsate with life. They attract and collect invisible energies from their surrounding; the forces of the air, of the water, of electricity and magnetism. they create winds, clouds, thunderstorms, rains, waterfalls, and rivers. They fill their surroundings with active life and give shelter and food to innumerable beings; such is the greatness of mighty mountains.

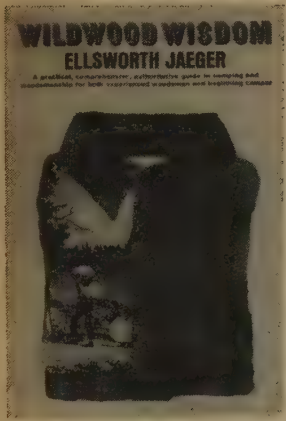
We had crossed the feared 18,000-foot pass in perfect ease and under a cloudless sky. The sun was so hot during the ascent that I had discarded my warm things, but hardly had we entered the shadows on the other side of the pass when we were plunged into icy cold, that made me regret not having kept my warm clothing at hand. Tibet is a country where one is ever up against the unexpected and where all accepted rules of nature seem to be changed. The contrast between sunshine and shade is such that if for any length of time one part of one's body would be exposed to the sun, while the other remained in the shade, one could develop simultaneously blisters, due to severe sunburn, and chilblains due to the icy air in the shade. The air is too rarified to absorb the sun's heat and thus to create a medium shadow temperature, nor is it able to protect one from the fierceness of the sun and its ultra-violet rays.



Wildwood Wisdom

this is the only book of wilderlore I've ever read from front to back, mainly because one third of the book is pictures, and i got sucked from one picture to the next, all the way through, jaeger assumes that you are in the wildwood because you want to be, and that the woods dictate as much a style of living as do the sidewalks of omaha, if you are going to live anywhere, do it with style, like an indian, with decorum, simply, carefully, quietly, but with style.

-jd

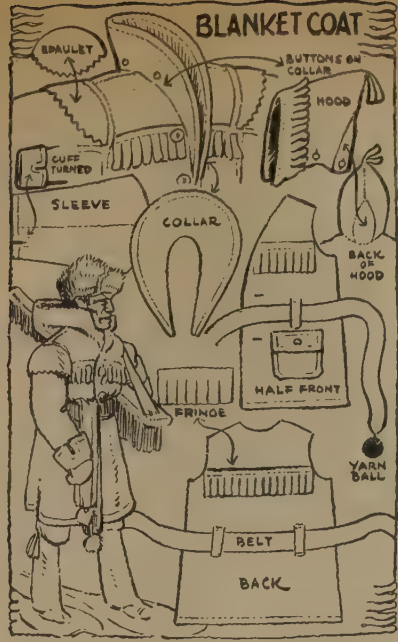


Wildwood Wisdom
Ellsworth Jaeger
1945; 69; 491pp.

\$6.95 postpaid

from:
The Macmillan Company
866 Third Avenue
New York, New York 10022
or **WHOLE EARTH CATALOG**

Colorful blankets, striped or in plain colors, may be cut up into the patterns shown in the drawing. The front is made in two parts, the back in one. The wide circular collar is made double thickness. Large patch pockets are sewed on the front sections before the coat is stitched together. The epauletlike pieces of blanketing at

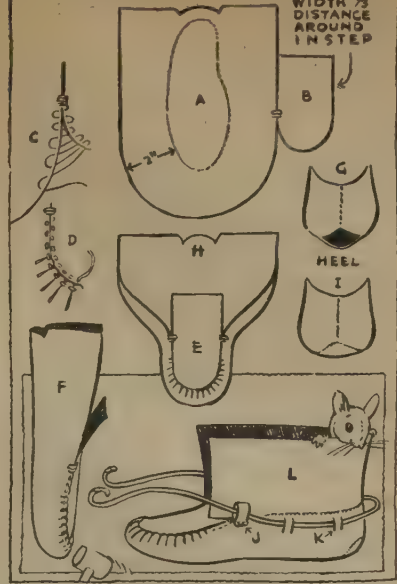


the shoulders are placed there to act as drains, so that the rain will not soak in at the shoulder seams. Coarse blanket fringe may be stitched on at the front and back, as well as the belt loops, if desired. Double-stitch the front and back together at the shoulders. Sew the sleeves and the epaulets double at the armholes, and double-stitch the circular collar to the coat proper. If a belt is wanted, sew double thicknesses of the blanket together about four inches wide. The belt may be fastened with buttons or it may be made long enough for a sash. A colored yarn tassel ball may be attached to the belt ends. Buttons and buttonholes must be provided on the front and on the patch pockets.

Now stitch the sides of the coat and the sleeves, starting at the bottom and continuing upward and along the sleeves. Turn up the cuffs of the sleeves to the desired width and fasten them with a few stitches. A french-Canadian *capote*, or hood, may be added, and the illustration shows how it is made. This fits over the upturned collar and may be fastened to the collar with a few small buttons, or it may be worn by itself and held with tie-strings under the chin. This briefly completes the job; and a colorful, picturesque, and very warm addition has been made to your outdoor wardrobe, one which can be worn for many years.

Take a piece of paper and trace an outline of your foot upon it. Then draw another outline about 2 inches outside the tracing of the foot as shown in (A). Then measure the distance around the ball of your foot—that is, around your foot at the joint of the big toe. Cut a second piece of leather the same shape

WOODLAND MOCCASIN



as A, but only a little less than a third of the measurement around the ball of the foot and half as long as (A). This will give you a small edition of the first pattern, or (B). Using these paper patterns, cut two large sections and two small ones. This gives you the makings for a pair of woodland moccasins. There are no lefts and rights in this type.

Now place the two pieces A and B side by side, just where the two curves come together, and sew them together with two or three stitches. Continue stitching, but be sure to make the stitches in the larger piece twice the length of those in the smaller. This is shown in (C). Continue this stitching around the toe until you get opposite to the first three stitches. Now pull your stitches tight, being careful to get the puckering uniform (D). Then make a final three stitches as you began the moccasin. Your moccasin will now look like (E). Get a flat stone or other hard substance and push it into the toe of the moccasin and with a hammer pound the puckering flat (F). You are now ready to finish the heel. First slip your foot into the moccasin and wrap the ends around your heel (G). Cut off the surplus and then cut two notches as in (H). When sewed up, your heel will look like (I). Then sew a tab of leather on each side of the moccasin as in (J) and cut slits in the sides and back for lacing as shown in (K). This finishes your moccasin for summer wear. The Indians stitched an extra piece of top leather, which could be wrapped around the ankles and held in place with the lacing (L). This kept the snow out of the moccasins and made excellent footwear for snow-shoeing.

Outdoor Survival Skills

olsen assumes that you get stuck out there with nothing but some knowledge, no matches, food, compass, toothpaste, or magazines. scrounge the tools food and shelter. good bunch of pictures and diagrams. sort of a purists book. for someone who is thinking about stopping along the road on the way to work some day, and just walking out into the wilderness.

-jd

[Suggested by W.H. Bayman]

Outdoor Survival Skills
Larry Dean Olsen
1967; 188pp.

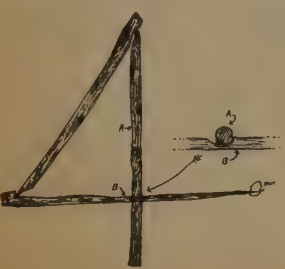
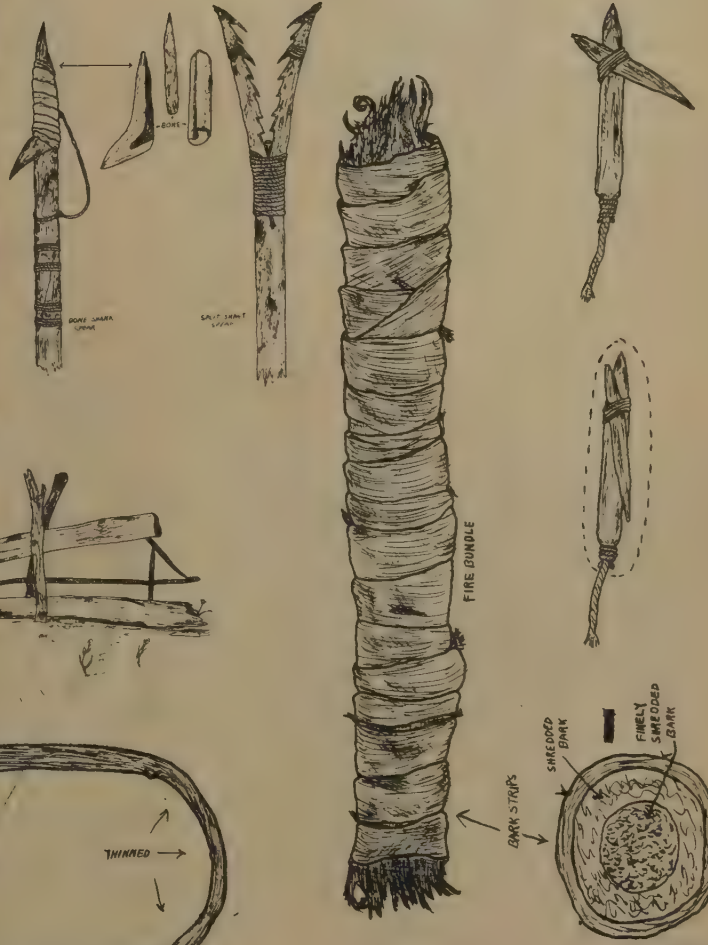
\$3.50 postpaid

from:
Brigham Young University Press
Provo, Utah 84601
or **WHOLE EARTH CATALOG**



At least once in life, every man, woman and child should know (1) the feeling of complete dependence on the bounties of nature, (2) hunger and hardship, (3) the meaning of total self-dependence, and (4) the personal inventiveness required to wrest a living from nature. Each should have the opportunity to learn the use of his own two hands in making necessary items for comfort and survival in nature.

Few of us ever depend upon our own skills and resources for our needs. We depend, instead, upon the manufactured items of our civilization to the extent that it would be nearly impossible to conceive of a life without them. We marvel at the ability of Stone Age people to survive under such adverse conditions as they were usually found. We envy somewhat their ability, and deep down inside of us we hold a secret fear that somehow, someday we may find ourselves in the same situation as these primitive folks. Even worse, we may find ourselves lost in a wilderness without food, water, shelter or even the know-how to provide them. We fear the thought of getting along without our "gadgets."



*** Moor and Mountain**

This is an excellent camping equipment store, with high prices but just about the best quality you can get. My brother and I have dragged our icelandic sleeping bags through just about everything and they're still beautiful. Some of their books are really good too. Just about the time I started getting kinda worried about all the preservatives etc. in food I discovered one of their books on wild foods and found an astonishing amount of them grew right in my back yard. Their moccasins and hiking boots are sturdy, long-lasting and come in a good range of style and price.

[Suggested and Reviewed by Lyn Bemis]

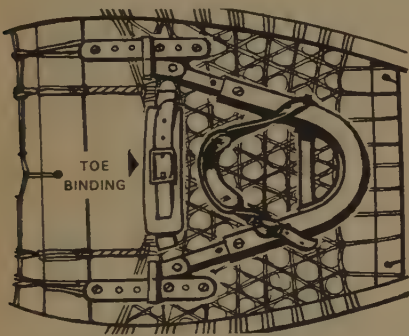
Catalog
free

from:
Moor and Mountain
Main Street
Concord, Massachusetts 01742



BRAIDED NYLON TENT & UTILITY CORD — The best coreless braided nylon to eliminate kinking and reduce stretching; made by Samson Cordage. No 3/4 — 7/64" dia., 300 lb. test; No. 4 1/2 — 9/64" dia., 425 lb. test; No. 5 — 5/32" dia., 600 lb. test.

Cat. No. 136 No. 3/4—50 ft. hank	Wt.: .16 lbs	\$ 1.25
any length — per running foot		\$.025
Cat. No. 137 No. 4 1/2—50 ft. hank	Wt.: .33 lbs	\$ 1.50
any length — per running foot		\$.03
Cat. No. 138 No. 5—50 ft. hank	Wt.: .41 lbs	\$ 1.75
any length — per running foot		\$.035



CRUISER SNOWSHOE HARNESS — Similar to the sandal harness, but with an extra strap which goes over the instep of the shoe or boot to hold the heel strap in place. Not as flexible as the Sandal Harness, but good for heavier boots.

Cat. No. 760 Wt.: .50 lbs.

*** Mountain Safety Research Newsletter**

When you are in the outlaw area of the mountains—on rock and snow—you want tools that will break after you do. Mountain Safety Research, Inc. is an organization that tests climbing gear and where it finds a need, designs and manufactures new equipment. It was founded by inventor-manufacturer-climber Larry Penberthy when he realized that much too of the gear on the market was shoddy. It is the closest thing to a testing service for mountain equipment that exists.

Working through existing channels in Seattle mountain climbing circles produced little support and a good deal of resistance so Penberthy started his own organization.

At any rate, Mountain Safety Research has turned up some disturbing things: carabiners and ropes that broke before their rated strengths, pitons made of metal with the grain running the wrong way, and ice axes of insufficient strength. For lack of another outlet, Mountain Safety Research retails its own design of pack and frame, process-your-own nylon ropes at below retail costs, ice axe shaft reinforcements kits, and other items.

[Suggested and Reviewed by David Sucher]

Newsletter and Catalog
free

from:
Mountain Safety Research, Inc.
631 South 96th Street
Seattle, Washington 98108

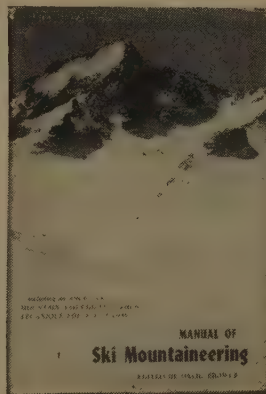


MSR BODY HARNESSES.

Manual of Ski Mountaineering

If you want the wilderness to yourself, go where it's high when it's cold. This book is a fine compendium of the technical knowledge you will need to make it.

—SB



Manual of Ski Mountaineering
David Brower, editor
1962; 1969; 232 pp.

\$4.75 postpaid

from:
Sierra Club
Mills Tower
San Francisco, California 90013

or WHOLE EARTH CATALOG

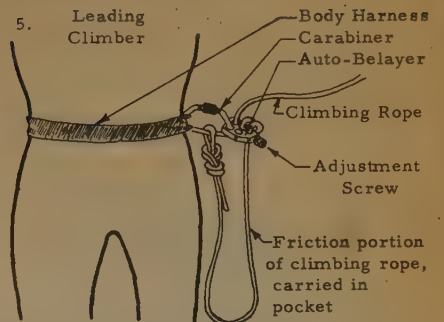
Two-step—One of the most useful maneuvers for attainment of speed on the level or on slight downhill gradients is the two-step, which uses the gliding ability of skis. If the two-step is to be used for long, it must be deliberate and rhythmic, slow enough to let the skier relax during the glide between thrusts.

Take a short step for propulsion, lean well forward from the waist, placing the poles well ahead, and lunge into a glide on the opposite ski by shifting the propelling thrust smoothly from the driving ski to a strong followthrough with the poles. Slowly bring the driving ski alongside the gliding ski in preparation for the next short step. Occasionally two consecutive short steps are taken to change the glide from one ski to another (this constitutes the three-step), and to tire out a new set of muscles.

Lightning and the mountain.—The urge to know more concerning the effects of lightning becomes stronger when one is on a peak with the static charge beginning to make its power felt. When every projection in the vicinity, and finally the climber himself, begins to spark and the air is filled with ominous hissing, the desire to be in camp becomes overwhelming. Since this desire cannot always be satisfied, it is well to know what to do at this time.

The reasons behind the classical warning to be off the summit and ridges in a lightning storm can be seen when the mechanics of the lightning discharge are studied.

MSR AUTO-BELAYER



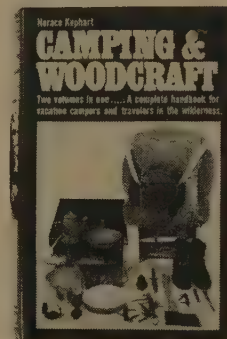
In the spring of 1968, I, your editor, enrolled in the intermediate climbing course of The Mountaineers, Seattle after having climbed Northwest mountains for 33 years without mishap. The particular stimulus for taking the course was an accident to a 13-year-old girl who was a member of the party I was leading. She slid on an icy slope into a deep snow socket, hitting her head on a tree. She was knocked unconscious, head bleeding, and her face went into spasm. Dr. Otto Trott's lecture on head and spinal injuries was fresh in my mind, and I really had a sinking feeling, thinking that her spinal cord had been damaged. We carried out a good rescue, and were fortunate that she had no permanent injury. But I was scared, since I realized that I had made several leadership errors. Hence, I took the course, renewed my First Aid cards, and started thinking how to become a better mountaineer and leader.

Being an engineer and professional inventor, I kept an investigative mind in the course and was soon asked by the chairman to try to learn why several 3/8" Goldline (twisted nylon) ropes had broken a few years earlier in crevasse and snow practice. But when I started testing, the first thing that broke was a carabiner, with a fall of the 200 lb. dummy of only 30 inches. On the next drop of the same distance, the rope broke. Consternation! What goes on here?

Camping and Woodcraft

How could anything written in 1916 still be so useful? One, it is a masterwork. Two, in Kephart's day when you went camping you really disappeared, so there's a valid nostalgia factor. But the main thing is, the book survives on its wealth of specific practical lore. Game: find the information that is outdated, sort it from the information that is correct and available nowhere else.

—SB



Camping and Woodcraft
Horace Kephart
1917, 1921, 1967; 479pp.

\$6.95 postpaid

from:
The Macmillan Company
Front and Brown Streets
Riverside, Burlington County
New Jersey 08075

or WHOLE EARTH CATALOG



Fig. 36.—Field Range (Packed)



Fig. 35.—Field Range

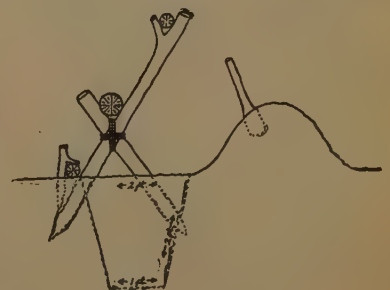


Fig. 113.—Latrine

Light Weight Camping Equipment and How to Make It

It's all here: design, patterns, assembly techniques, light-weight materials, and sources of the materials. Because of good information on what's needed for various environments, it's a useful book even if you aren't making your own stuff. An indispensable book if you are.

[Suggested by Roland Jacopetti]

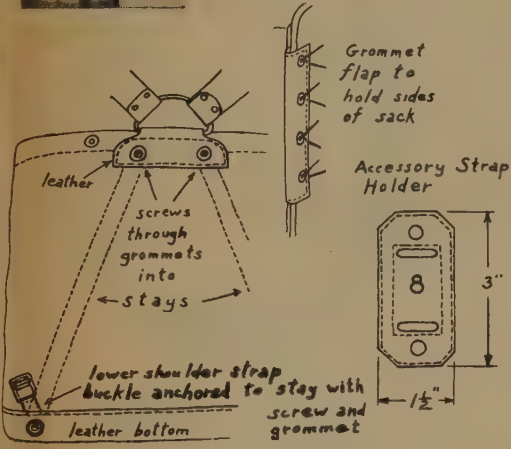


Light Weight Camping Equipment
Gerry Cunningham, Margaret Hansson
1959; 130 pp.

\$2.00 postpaid

from:
Alaska Sleeping Bag Co.
710 N. W. Dawson Way
Beaverton, Oregon 97005

or **WHOLE EARTH CATALOG**



L.L. Bean

The Bean catalog is the model for the **WHOLE EARTH CATALOG**. Mr. Bean had a directness and integrity that shows through his catalog, his products, his service. The catalog has excellent items, especially outdoor clothing. An uncommonly pleasant company to do business with.

-SB



Catalog
free

from:
L. L. Bean, Inc.
Freeport, Me. 04032

BEAN'S INSTANT KNAPSACK

Tucks into its own zippered pocket with belt loop. Opened it makes a full-sized day pack that will hold a cubic foot of dunnage. Made from tough, weatherproofed nylon with nylon shoulder straps equipped with quick release buckles. Drawstring top closure with weather flap.

Weight 4 oz. Color, Red. Price, \$5.50 postpaid.



RES-Q-PAK

Emergency life preserver that can support a 250 lb. man for hours. Weighs only 4 oz. and is the size of a cigarette pack. Clips securely to clothing. A quick squeeze activates CO₂ cylinder and inflates into two-foot float.

A Safety Orange Color. Price, \$3.50 postpaid.

Frostline Outdoor Equipment

Frostline Outdoor Equipment is the manufacturer of do-it-yourself kits of lightweight camping equipment: tents, down sleeping bags and clothing. They also sell the raw materials for making such equipment (pre-packaged down; zippers; nylon fabrics; velcro self-sticking nylon tape fastener; Dacron thread; etc. The company's service by mail has proven prompt and dependable, all of this reviewer's orders having been filled correctly.

This reviewer has made Frostline's "Big Horn" ("Winter") sleeping bag (2 3/4 lb. down filled overlapping tube design with no stitched through seams), stuff sack and poncho. She found each kit to be all that the manufacturer had claimed, the catalog description scrupulously accurate

Frostline kits are complete; all they require is assembly with a sewing machine. This reviewer used a Singer Featherweight for the purpose.

Before deciding on the Frostline kits, this reviewer compared Frostline prices and specifications with those of other companies. (The Ski Hut, Recreational Equipment Inc., Thomas Black and Sons Inc., etc.) She concluded that the Frostline kits were the most economical product without any compromise in quality.

[Reviewed by Roberta Becker Marshall.
Suggested by many]



Catalog
free

from:
Frostline Outdoor Equipment
P. O. Box 1378
Boulder, Colorado 80302

The Smilie Company

For those interested in traditional mule packing and log cabin living—or if you're just hung up on old time type stuff. Everything from sheepherders ovens to genuine heavy iron griddles. They also make those large semi-permanent encampment tents.

[Reviewed by Drew Langsner.
Suggested by Jim Wayman]

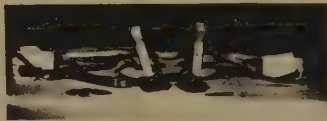
THINKING OF A BACK PACKING TRIP?

SEND FOR OUR FREE BROCHURE—

BACKPACKING IS FUN

Catalog
\$10

from:
Smilie Co.
575 Howard Street
San Francisco, Ca. 94105



7224 PACK SADDLE - Double rig humane pack saddle complete with breast collar and lash chinch. Everything you need except the mule, kyacks, halter, saddle pad and 50' of 1/2" manila lashing rope. Wt. 18 lbs. \$59.50



2-3405 SHEEPHERDERS WOOD CAMP STOVE is the old time sheepherder's stove, built for hard and long use. Of heavy sheet iron (20 ga.) with 5 piece telescoping pipe (16" lengths) which packs in fire box. Oven size 5" x 8" x 11" with bakepan. Overall size 12" x 9" x 27". Can be packed as top load on pack animal. Wt. 26 lbs. Shipping weight 35 lbs. \$25.00

Todd's

good heavy chippewa boots and shoes.

-jd

Catalog
free

from:
Todd's
5 South Wabash
Chicago, Illinois 60603



**PLAIN TOES
OUTSTANDING VALUES**

Durable oil tanned water repellent leather, drill lined vamps, molded counters, protective hard toes, long-wear Goodyear welt outsoles and heels.

Brown & olive sizes, B 9-15,
C 8-14, D 6-15, E 6-14,
EE 6-14, EEEE 7-13.
Also A 8-14 in
C 6300 & C 6060

DARK OLIVE, Lightweight Neoprene cushion crepe soles
No. C 6303, 8 1/2 inches overall, 7 1/2 inch tops \$19.95
No. C 6063, 6 1/2 inches overall, 5 1/2 inch tops 18.95

CEDAR BROWN, Heavy duty non-skid cork & rubber soles
No. C 6300, 8 1/2 inches overall, 7 1/2 inch tops \$18.95
No. C 6060, 6 1/2 inches overall, 5 1/2 inch tops 14.95



DELUXE MULTI-PURPOSE
Extra strong & sturdy

9 inch overall 7 1/2 inch tops, premium quality oil tanned water repellent leather, double leather vamps, outside heel guards, heel supporting molded counters, protective hard toes, 1/4 inch lugs. Designed for comfort and long wear.

C 5309, BLACK Men's B 9-13,
C 7-13, D 6-14, E 6-14,
EE 7-13 \$29.95

SUB-ZERO INSULATED
One pull Qwik-Laser

Durable oil tanned water repellent leather, completely leather lined and spun Nylon insulated, heel supporting molded counters, soft toes, superwear non-skid Vibram lug soles & heels, 1/4 inch lugs. 9 inches overall, 7 1/2 inch top.

No. C 2311, GOLDEN BROWN. Mens, C 8-13,
E 7-13 \$39.95

Black's

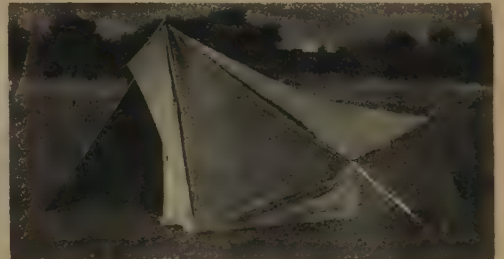
Said to be the largest camping equipment supplier in England, Black's has an outlet in New York state.

-SB

[Suggested by Jerome Skuba]

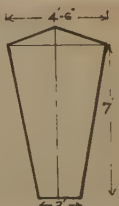
Catalog
free

from:
Thomas Black & Sons
930 Ford Street
Ogdensburg, New York 13669



SUMMIT TENT

A small ultra light tent of simple design. With the back pole on the outside it is easily erected. Peg out doors and dipped hood offer good protection for cooking in the entrance. The single pull out guys on each side allow extra elbow room. Front Angle Poles available for easier access (description page 1). Window available (see page 1). In tan Protex. Tent alone without poles, pegs and carrying bag weighs 3 1/2 lbs.



Chouinard Equipment for Alpinists

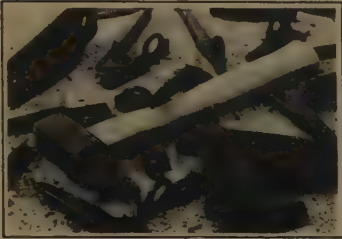
Almost everyone who goes into the mountains eventually develops an urge to try rock scrambling or climbing of some kind. It is therefore important to be aware of the best safety procedures and climbing aids available.

Alpinists Yvon Chouinard and Tom Frost design and fabricate a high quality selection of modern climbing equipment. Along with descriptions and illustrations of gear, their definitive catalog includes sections on history, use, care and precautions. There is even a beautifully illustrated article on ice climbing.

[Suggested and Reviewed by Drew Langsner]

Catalog
free

from:
Chouinard
P. O. Box 150
Ventura, California 93001



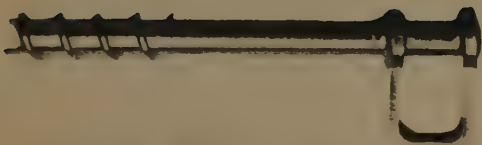
Holubar

Another outdoor supplier. Some unique items.

[Suggested by Craig Schenstad]

Catalog
free

from:
Holubar
P. O. Box 7
Boulder, Colorado 80302



SALEWA ICE SCREWS

The most useful and most secure ice piton available today. Tubular construction with machined threads offers maximum strength with minimum weight.

Length	Weight	Price
8"	5 oz.	\$3.75



ROYAL ROBBINS "RR"

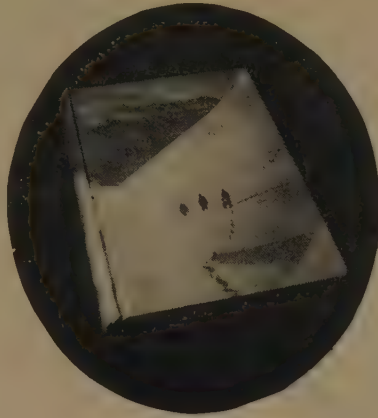
Designed to the specifications of America's great rock climber, Royal Robbins, this boot is made by Galibier of France. A shoe built for rock work on big walls or bouldering, the "RR" combines the best qualities of the climbing boot and klettershoe making it outstanding for crack and face climbs yet comfortable for walking. Uppers of fully lined blue suede with a rubber covered toe and heel; lug soles. Sizes 2 to 12; width medium.

Average wt. 3 1/4 lbs. \$28.95

Mountaineering: The Freedom of the Hills

By far the most complete and sensitive treatment of mountaineering available. Oriented around Pacific Northwest mountaineering, where trails often end miles before the peaks begin, it is particularly relevant to wilderness camping and travel. It is much more than a book on how to climb. Reflects several generations of respectful relationship with mountains. If you move (or sit) where there are trees, rocks, snow and brush, it speaks to your terrain. One limitation: little about dry, arid areas—glaciers are the local functional equivalent of deserts.

[Reviewed by Michael Templeton.
Suggested by everybody.]



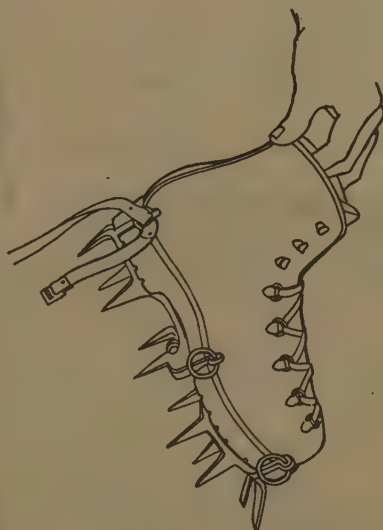
Mountaineering:
The Freedom of the Hills
Harvey Manning, editor
1960, 1967; 485 pp.

\$7.50 postpaid

from:
The Mountaineers
P. O. Box 122
Seattle, Washington 98111

or WHOLE EARTH CATALOG

The irregularity of a mountain range tends to break up a front, especially the narrow turbulence zone of a cold one. Instead of advancing in a solid line it may surge forward up a deep valley while held stationary by a high massif, this bulge perhaps being attacked by flanking air—little squalls breaking off and wandering about apparently at random. A party on one peak may experience lightning, hail, driving snow, pouring rain, and calm sunshine all within the space of an hour. On a nearby peak another party may spend the entire day undisturbed by so much as a drop of rain, using up all their camera film shooting the superb cloud structures.



In recent years many a mountaineer has developed the habit or hobby of not only making his passage invisible but of spending extra effort to obliterate evidence of his predecessors—most of whom were just ignorant and thoughtless.



Fig. 85. Sitting belay in snow.

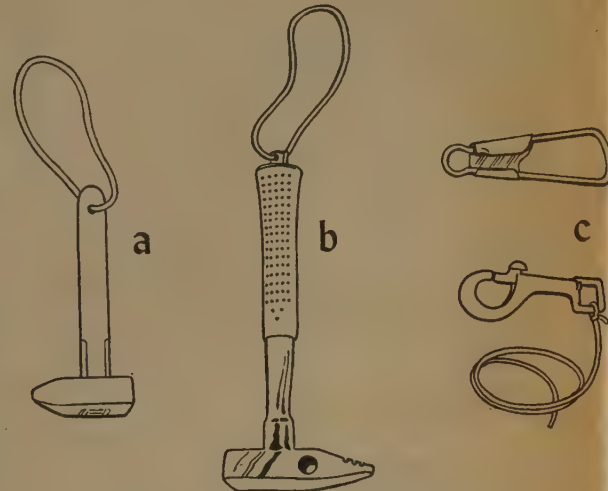


Fig. 53. a. Piton hammer, wooden handle.
b. Piton hammer, metal handle.
c. Piton catchers.

BREAKFAST

If the climb begins in the middle of the night, breakfast is merely the first installment of lunch. A tiny can of fruit cocktail, or a doughnut and a swallow of milk, are typical menus. Some climbers are convinced their legs won't work without hot food; their neurosis can be quickly pampered with instant cereal or cocoa cooked by chemical fire.

LUNCH

As soon as breakfast is completed the climber commences lunch, which he continues to eat as long as he is awake, stopping briefly for supper. He has food in his rucksack and knick-knacks in his pockets, main course for the summit lunch, nibbles for rest-stops, and sweets to suck while walking.

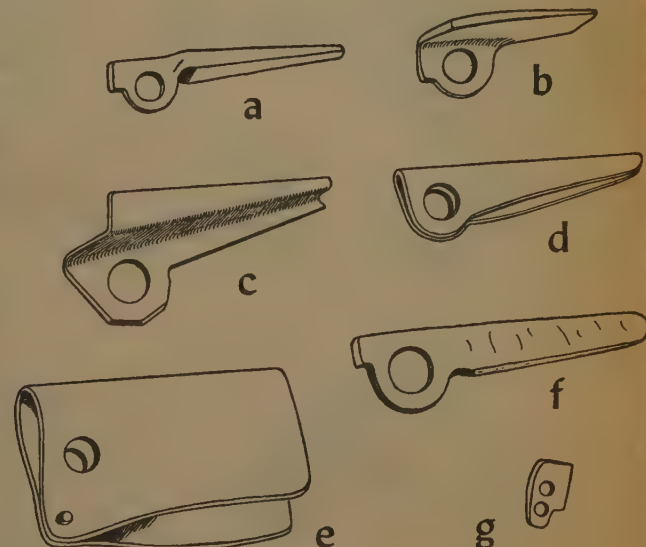


Fig. 51. Representative types of pitons.
a. Knifeblade with centered eye.
b. Knifeblade with offset eye.
c. Z-section.

d. Angle.
e. Bong.
f. Vertical.
g. RURP, or crack-tack.

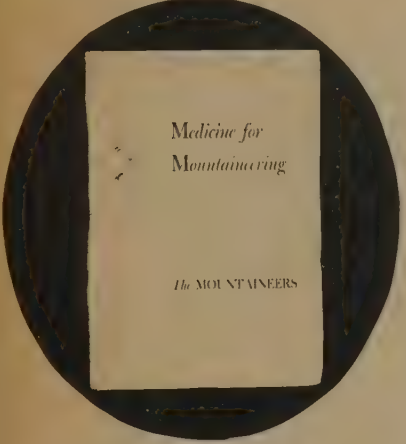
PITONS

Medicine for Mountaineering

Most first aid texts are written for use by the general population in the circumstances of ordinary daily living, and are primarily intended to prevent the aggravation of existing injuries by well-meaning but uninformed individuals. The usual approach is "what to do until the doctor comes." Such instructions are often not sufficient when the victim must be evacuated to the doctor, particularly when evacuation requires more than 1 or 2 days.

This is a handbook of medicine—not first aid. The treatment described for some conditions includes potent drugs or difficult procedures which could lead to disaster if used in an incorrect manner. Some of this material is of such complexity or is potentially so dangerous that it has not generally been considered appropriate for presentation to individuals without a physician's training.

[Suggested and Reviewed by Robert J. Epstein]



Medicine for Mountaineering
 James A. Wilkerson, M.D., editor
 1967; 312 pp.
\$6.75 postpaid
 from:
 The Mountaineers
 P.O. Box 122
 Seattle, Washington 98111

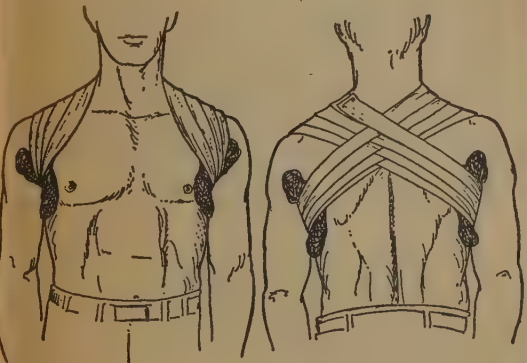


Figure-eight bandage for splinting a fractured collar bone.



Digital removal of a fecal impaction.

The North Face

Pretty good stuff, mostly specialized for rock climbers.

Catalog
 free

from:
 The North Face
 Alpine Equipment Specialist
 1234 Fifth Street
 Berkeley, California 94710



CLIMBING ROPE					
Size	Brand	Color	Test Strength	Weight	Price
3/8"	Plymouth	gold	3,700 lb.	5 1/2 lb.	\$17.50
9 mm	Edelrid	red, blue, gold, white	4,300 lb.	5 lb.	\$33.50
9 mm	Edelrid	bicolor (1/2 red, 1/2 white)	4,300 lb.	5 lb.	\$39.50
7/16"	Plymouth	gold	5,500 lb.	8-3/4 lb.	\$29.00
11 mm	Edelrid	white	5,900 lb.	7 lb.	\$40.00
11 mm	Edelrid	red, blue	5,900 lb.	7 lb.	\$44.50
11 mm	Edelrid	bicolor (1/2 red, 1/2 white)	5,900 lb.	7 lb.	\$57.00
1/4"	Plymouth	gold	1,650 lb.		6¢/ft.
5/16"	Plymouth	gold	2,550 lb.		9¢/ft.

Sierra Designs

They are very, very nice people, and I truly believe they make the best available sleeping bags. Design, workmanship, materials, aesthetic beauty, all tops. Prices are high, but not that much higher than everyone else. If you're looking for the best, they've got it.

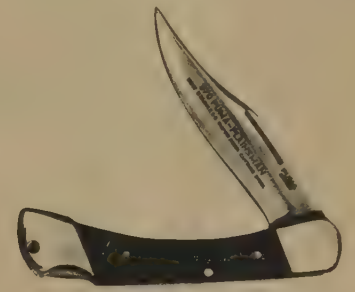
[Reviewed by Roland Jacopetti.
 Suggested by Sandra Tcherepnin.]

Catalog
 free

from:
 Sierra Designs
 Fourth and Addison Streets
 Berkeley, California 94710



An outstanding hammer developed over a period of years on the most demanding climbs in the "valley." 18 oz. drop forged head and hickory handle. A very tough and well-balanced hammer. Each hammer has a sewn nylon shoulder sling.
 Wgt.: 22 oz. **\$12.50**



A no-nonsense single-bladed clasp knife. Construction is very solid. Handle is one-piece solid brass, with side scales of Jacaranda wood set in. Blade will hold the sharpest edge, and is of finest quality stainless cutting steel. Blade locks open. Folds to length of 5"; blade 4". With light leather case. Wgt.: 6 oz. \$18.00.



Omni

The Omni bag is designed to appeal to the widest possible range of persons who want a lightweight goosedown sleeping bag. This roomy semi-rectangular bag appeals to those who want a bag for back-packing use as well as more general application. A pair of Omni's zipped together make an enormous double bag, with the zipper around the perimeter—an advantage over zipped together mummies. Bag opens flat and can double as a quilt. Shell fabric is a tough 1.9 oz. ripstop and zippers are nylon with two sliders, so bag can open at foot as well as top. STUFF SACK INCLUDED.
 Color: Blue. Regular (to 6'): \$90.00 Large (over 6'): \$95.00

Autos

★ Factory Service Manuals

one way to force detroit to stop producing tinny chromedup pieces of shit is to stop buying what they produce, spend a little time operating on old terminal cases and, through the miracle of transplant, give the old '57 ford retractable another ten years of life. old cars run just as well as new ones, if the driver knows enough about his machine to keep it running. this is a list of mechanics service manuals for just about every kind of automobile on the road. the list was put together by collin clark and michele snyder of the vallejo, california, public library, and was first run in SYNERGY, a san franciscan brother publication.

-jd



AMERICAN

(Ambassador, Classic, Javelin, Marlin, Rambler and Rebel available, 1961 to date)

American Motors Corp.
Automotive Customer Relations Section
14250 Plymouth Road
Detroit, Michigan 48232

BUICK

(1960 to date available; Fisher Body manual separate, 1966 to date. Opel Kadett available, 1964 to date.)

Buick Motor Division
General Motors Corp.
Service Publications Dept.
Flint, Michigan 48550

CADILLAC

(1959 to date available; Fisher Body manual separate, 1966 to date.)

Cadillac Motor Car Division
General Motors Corp.
Detroit, Michigan 48232

CHEVROLET

(Camaro, Chevelle, Chevrolet, Chevrolet truck, Chevy II, Corvair and Corvette available; 1949 to date in several combinations; Fisher Body manual separate, 1966 to date. Chevrolet car, 1919 to 1948, and truck, 1934 to 1962, available on microfilm on special order.)

Helm, Inc.
2550 East Grand Blvd.
Detroit, Michigan 48211

CHRYSLER

(Chrysler and Imperial available, 1951 to date; Plymouth and Valiant available, 1946 to date.)

Chrysler-Plymouth Division
Chrysler Motors Corp.
Service Dept.
P.O. Box 1658
Detroit, Michigan 48231

DATSUN

(Several manuals available.)

Nissan Motor Corp. in USA
137 East Alondra Blvd.
Gardena, California 90247

DODGE

(Charger, Coronet, Dart, Dodge 880, Lancer, Monaco, Polara available, 1953 to date.)

Service Dept.
Dodge Division
Chrysler Motors Corp.
P.O. Box 1259
Detroit, Michigan 48231

FIAT

(Several manuals available.)

Fiat Roosevelt Motors
532 Sylvan Ave.
Englewood Cliffs, New Jersey 07632

FORD

(Bronco, Comet, Continental, Cougar, Edsel, Fairlane, Falcon, Ford, Ford truck, Lincoln, Mercury, Montego, Mustang, Thunderbird available, 1958 to date, in ever-changing combinations of manuals.)

Ford Service Publications
P.O. Box 7750
Detroit, Michigan 48207

JAGUAR

(Several manuals available in loose leaf binders for Jaguar sport cars and sedans, and for Daimler.)

British Motor Car Distributors, Ltd.
1200 Van Ness Avenue
San Francisco, California 94109

JEEP

(Several manuals available for Jeep and Jeepster.)

Kaiser Jeep Corp.
940 N. Cove
Toledo, Ohio 43601

LINCOLN — see FORD

MERCEDES-BENZ

(Not presently available; new literature distribution policy being formulated.)

Mercedes-Benz of North America, Inc.
158 Linwood Plaza
P.O. Box 318
Fort Lee, New Jersey 07024

MERCURY — see FORD

MG

(1967 workshop manuals for MG, MGB, and Sprite/Midget available.)

Robert Bentley, Inc.
872 Massachusetts Avenue
Cambridge, Massachusetts 02139

OLDSMOBILE

(1960 to date available; Fisher Body manual separate, 1966 to date.)

Service Dept.
Oldsmobile Division
General Motors Corp.
Lansing, Michigan 48921

OPEL — see BUICK

PEUGEOT

(Several manuals available.)

Peugeot, Inc.
107-40 Queens Blvd.
Forest Hills, New York 11375

PLYMOUTH — see CHRYSLER

PONTIAC

(Firebird, Pontiac and Tempest available, 1955 to date; Fisher Body manual separate, 1966 to date.)

Drake Printing Co.
1000 West Eight Mile Road
Ferndale, Michigan 48220

PORSCHE

(Available for sale only through local authorized dealer.)

RENAULT

(Several manuals available.)

Renault West Service Center
702 W. 190th Street
Gardena, California 90247

SAAB

(One manual available in loose leaf binder.)

SAAB Motors, Inc.
100 Waterfront Street
New Haven, Connecticut 06506

SCOUT

(One manual available in loose leaf binder.)

Simca-Rootes Division
Chrysler Motors Corp.
P.O. Box 1688
Detroit, Michigan 48231

VOLKSWAGEN

(Not presently available; all manuals being revised.)

Volkswagen of America, Inc.
Englewood Cliffs
New Jersey 07632

(1967 Owner's service manual for 1200/1300/1500 available)

Robert Bentley, Inc.
872 Massachusetts Avenue
Cambridge, Massachusetts 02139

VOLVO

(Manuals available for 122S, P1800 and 140 series in loose leaf binders.)

Volvo Western Distributing, Inc.
1955 190th Street
Torrance, California 90501



Joblot Automotive

*ford parts by mail.
catalog serves as ford parts manual.*

-jd.

Catalog

\$.50

from:
Joblot Automotive Inc.
98-11 211th Street
Queens Village
Long Island, New York 11429



How to Keep Your Volkswagen Alive

John Muir has written what may well be your V.W.'s best friend. In this book you are invited to "Just take the book out to the car with your coveralls on for a guided tour."

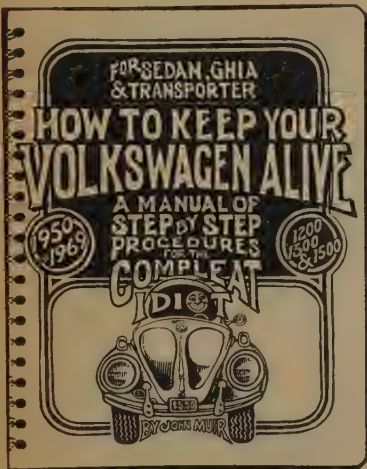
So I did. My guided tour of the car and the book's easily versed descriptions convinced me that it is the best I've encountered yet. It's written for the layman (us), and as such makes about 80% of the common V.W. ailments both clear and repairable.

If you take it literally, you will learn to "feel the car" and perform the necessary tasks with love. There are also many pages devoted to what you can do when hung up on the mud flats for one reason or another. While "Volkswagen Technical Manual" contains more pictures of the beast, "Volkswagen Alive" is what I would prefer to have when it's time to unroll the metric wrenches.

[Reviewed by Don Burns]

OK so here's a good book on how to fix your VW written in a chummy style that will not be too amusing the second time you read it. There's a real collection of tricks and pitfalls that to my mind is well worth the money. But some of them are rehashes of old wives tales that are not true (there's a bit about the VW Understeer. What makes the VW dangerous is Oversteer: it steers more than you tell it to. Also, some of the really damnable aspects of repairing old VWs such as headlights that are about as bright as birthday cake candles, are simply and groovily dismissed without telling you how to do anything about it. HOWEVER... an idiot can actually do major repairs on his VW with the aid of this book, and that, friends, is saying a lot. I would recommend that you have this and the Elfrink book at your side. John Muir also gives lists of tools you need, which hand to hold them in, and when to stop for a morale-building smoke. He also tells you when to quit and what not to attempt. Any VW owner should be able to save the price of the book within a week of getting it. Reading it will aid you in keeping your bug out of the shop in the first place. There's a "how to buy a used VW" chapter too! And he starts out "Come to kindly terms with your Ass for it bears you." Indeed. I'd call it indispensable.

[Reviewed by J. Baldwin]



How to Keep Your Volkswagen Alive

John Muir
1969; 242pp.

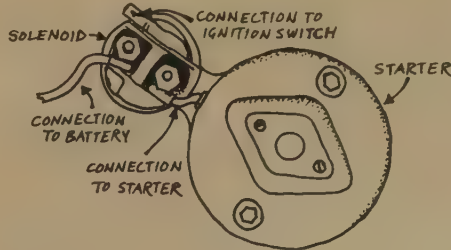
\$5.50 postpaid

from:
John Muir Publications
Box 613
Santa Fe, NM 87501

or WHOLE EARTH CATALOG

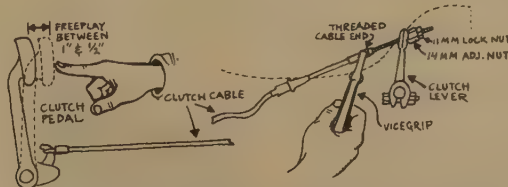
Get away from the car and the owner or salesman to let your mind and feelings go over the car and the idea of the car. What has its Karma been? Can you live with the car? Walk around or find a quiet place, assume the good old Lotus and let the car be the thing. At this point some revelation will come to you and you will either be gently guided away from that scene and can start looking again, or you will still be attracted toward the car and can continue with your inspection. It is important that you neither run the motor or ride in the car until this preliminary scene has run its course. It also puts the owner-salesman up the wall because he has no idea of what you are doing and will be more pliable when the hard dealing time comes.

When the Volksie front end needs your tender attention, it'll let you know by feeling insecure, a not-unknown trip in any relationship. This insecurity can be evidenced in many ways: wandering mindlessly across the road, impulsively darting here and there, wearing tires out in funny patterns or making nerve-wracking noises on dirt roads. These are the symptoms and you are the doctor, at least almost a doctor. I've told you so many things to do, it's a real pleasure to tell you something not to do. Don't rotate your tires! It takes about 500 miles for a tire to get used to its position on a car, and changing it around just messes up its head. It will last as long or longer right where it is. The reason I tell you this now is that changing the tires around will sometimes make your front end feel insecure when there's nothing wrong with it.



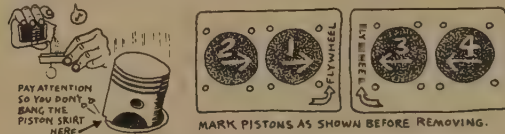
The valve adjustment is the most important item going for your Volkswagen. Let me tell you a "for lack of a nail" story. Suppose no. 3 cylinder has a slightly tight exhaust valve—no. 3 is usually the one that burns because it sits behind the oil cooler and gets less cooling air than the others. A valve can burn in about 500 miles, and you only feel a loss of power. The next step is that the oil gets hot because only three cylinders are doing the work. When the oil gets hot it stops lubricating and the connecting rods start to go, or a piston will freeze up and break from lack of lubrication, or the whole engine will seize up tight as a drum. All this is from an improperly adjusted valve.

The major reason I feel that each Volkswagen owner should do his own valve adjustments is because they should be adjusted dead cold. Volkswagen books say they can be adjusted at less than 50 degrees centigrade, so the dealer puts a blower on the valves and cools them until they are at this temperature. I've found too many tight valves in engines adjusted to this specification to believe a word of it. VW also says the distributor should be adjusted cold or less than 50 degrees centigrade (111 degrees F). I say 122 degrees is not cold.

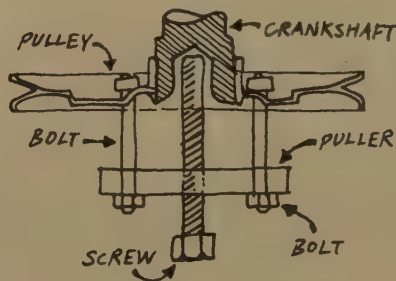


Take the hub cap off the wheel and check the brake lining in each wheel. You can see it through the adjustment hole with the flashlight. You may have to roll the car back and forth a little to get the lining in view, and if the outside light is strong, a jacket or cloth over the fender and your shoulders will cut the daylight so the lining can be seen. If the lining is about one-eighth of an inch thick, you have plenty, but if it is less than a sixteenth, you will soon have to reline the brakes and you should know that.

Again, this doesn't apply to those who already know they're going to buy new pistons and cylinders, but you others, mark the pistons.



With a nail or file, scratch the number on the top of the piston, through that carbon, and draw an arrow pointing toward the flywheel, like I, II, etc. Start with #1, get it out as far as it'll go, and remember the WARNING.



Western Distributors

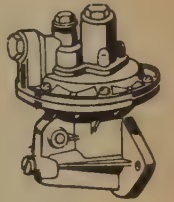
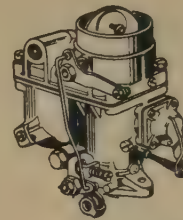
Bug parts—at sensible prices. This small mailorder house offers the VW owner a chance to buy imported parts for his car at really fair prices. Not all parts are offered, but the ones most often replaced (cables, points, brakes, etc.) are there. Genuine Bosch sparkplugs are a bargain at 55¢ each postpaid. No minimum order, either. A few accessories, plus a VW Technical Manual complete the offering. Parts are listed for the Beetle as well as the Ghia, Bus, Fastback, Squareback, and Variant. Free catalog is offered. Service—good. Postage—all items are shipped postpaid.

[Suggested and reviewed by Gerard Ruch]

Catalog

free

from:
Western Distributors
Box 316
Cedar Crest, NM 87008



1300-1500-1600 FUEL SYSTEM

DESCRIPTION	ORDER NO.	PRICE
Fuel Pump (1300)	50-F-1	\$12.95 ea
Fuel Pump (1500-1600)	50-F-2	13.95 ea
Fuel Pump Kit (1300)	50-F-3	2.10 ea
Fuel Pump Kit (1500-1600)	50-F-4	2.60 ea
Carburetor (Must have carburetor number)	50-F-5	36.95 ea
Carburetor Kit (Must have carburetor number)	50-F-6	4.25 ea

Warshawsky

J.C. Whitney is schizophrenic it seems.

Warshawsky is his other personality. Same company, cheaper prices.

-jd

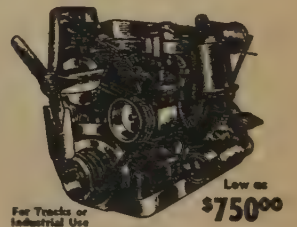
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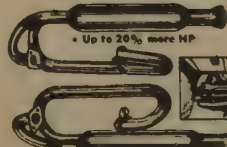
from:
Warshawsky and Company
1900-24 South State Street
Chicago, Illinois 60616

DIESEL ENGINES

Stk. No.	Each
CUMMINS (C) 150	750.00
C165 U2914F	800.00
C175 U3019F	800.00
NH200	1245.00
NH220	1245.00
MACK U2021F	1295.00
6-73 U2022F	1295.00



CHROME PLATED SPLIT HEADERS EXHAUST SYSTEM to fit DUNE BUGGY



TANDEM ELECTRIC FUEL PUMP

DELIVERS UP TO 75 GALLONS PER HOUR, FREE-FLOW

Fits All Dune Buggies with Volkswagen Engines. Custom, yet lightweight, exhaust system outperforms most other split exhausts. Beautifully finished with triple nickel—copper chrome processed for a super-sensational appearance. Raised pipes for off-the-road-clearance. Smooth wrinkle-free 1 1/2" diameter mandrel bent tubing insures free flow of exhaust gases. All joints welded for long trouble-free service. Straight-thru, fiberglass packed bullet type mufflers have 1 3/4" radial cut inner cone to reduce back pressure. Give a low, deep-throated pleasant sound. Easily installed—no cutting or welding required. Kit includes two 12" long chrome plated glass packed mufflers with 2" flared tips, chrome plated split header exhaust pipes, gaskets, and instructions. Shpg. wt. 15 lbs.

21-1620—Fits 54-60 36 HP eng.
21-1621—Fits 61-70 40, 50, 53 HP eng. Kit \$49.95

Stk. No.	Each	Stk. No.	Each
73-1374	\$31.95	73-1376	\$41.95
73-1375	\$1.95	73-1375	\$1.95

Cache Lake Country

an illustrated seasonal diary of lake country tricks and tips, written by a mellow, contented, man, who loves the woods, knows his subject, and writes pretty well too. Kane's illustrations are the nicest i've seen. the book makes me want to learn how to swim.

-jd

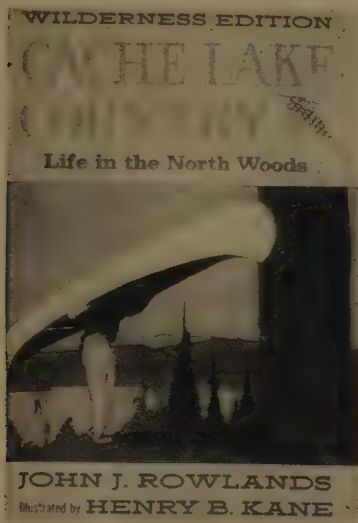
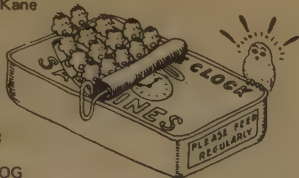
Cache Lake Country

John J. Rowlands, Henry B. Kane
1947, 59; 270pp.

\$5.95 postpaid

from:
W.W. Norton and Company
55 Fifth Avenue
New York, New York 10003

or WHOLE EARTH CATALOG



Up on higher ground where the soil is mixed with sand and well drained, I plant my potatoes early in June, for I depend on the late crop to put away for the winter. We grow very fine potatoes here in the woods and they have a flavor all their own, especially when baked in the ashes of a campfire. There is quite a trick to cut seed potatoes, for you get a better yield if you cut them so that you get they eyes on the flower end and in the middle instead of the stem end where the potato was attached to the plant. When the time comes to harvest the crop we have to watch for sudden cold rains which make potatoes soggy. Another thing is that if potatoes lie in the sunlight for any length of time after digging they turn green and are not much good. For keeping through the winter, potatoes should be stored in a dark dry place where the air circulates freely, but they must always be protected against freezing.

Another sign that may mean stormy weather is that earthy, rainy smell you sometimes notice before a storm, especially near a muddy pond or marshy place. Some of this odor, which at times is very unpleasant, is caused by marsh gas escaping from the mud at the bottom of the pond, where it is formed by rotting vegetation. This gas is most likely to bubble up from the bottom when the atmospheric pressure is low as it usually is before a storm. When the pressure is high and the weather clear most of the gas is held at the bottom. When I was a boy I would row out on a pond and drive a pole into the bottom and touch a match to the gas when it came to the top in the form of bubbles. Makes quite a flare for a second or so. In addition to the gas, low atmospheric pressure has a tendency to keep odors close to the ground, which accounts for all kinds of strong woods scents, including the musky smell of animals just before a spell of bad weather.

WATER-COOLED REFRIGERATOR



These are the 32 COMPASS POINTS - the half-points in between are called NNE, NNE½N, NNE½E, NE½N, NE½E, ENE½N, etc.



TRACKS ~ of a City Man...



Aspen



Canada Birch



Cedar



Black Spruce

HACKSAW BREAD KNIFE



The Old Boathouse

let me recommend the old-fashioned wooden rowing & sailing dinghies sold by "The Old Boathouse", 2770 Westlake No. Seattle, 98109, as beautiful & seaworthy craft.

The Norwegian "rana" boats range in size from 9½" to 16½". They are cap-stake, copper riveted & oak framed. They are light, yet very strongly built. The 16½' sloop is an open dinghy with a full-length skeg as well as dagger-board. This gives a directional stability lacking in fibreglass racing boats. A rana boat will beat or reach all day without a touch of the helm. She can carry as many as 6 adults comfortably & still not be overloaded. She is a great, safe family boat that sails well in all conditions & rows quite well. (Oars come with the boat.) The rana boats are a real bargain, costing far less than anything comparable in fibreglass.

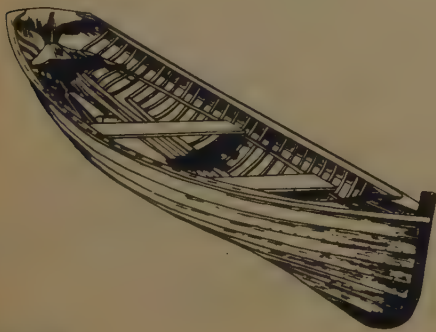
"The Old Boathouse" also sells a traditional, fine lined, cap-stake rowing skiff on the lines of the famous "whitehall" skiffs. This boat is built in Minnesota & is a wonderful example of a dying art. These boats are undoubtedly one of the most easily rowed boats in the world. The construction is white cedar planking, oak frames & copper clench nailed throughout. The boats are beautifully finished in varnish inside & out. The prices for this boat are quite high, but the craftsmanship is the highest quality.

[Suggested and Reviewed by Robert Perry]

The Old Boathouse—Information

free

from:
The Old Boathouse
2770 Westlake North
Seattle, Washington 98109



The New World of the Oceans

Everybody says, *The Ocean Is Next*, and that's probably right. Every bookstore has a line of ocean popsicles for your refreshment now. This book of Behrman's has more protein than that. If you're planning to go down to the sea in science, he can let you know where science has been with the sea. He can also get you giggling proper.

-SB

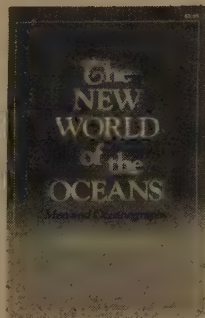
The New World of the Oceans

Daniel Behrman
1969; 435pp

\$2.95 postpaid

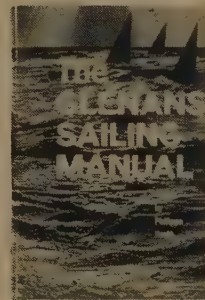
from:
Little Brown and Company
200 West Street
Waltham, Massachusetts 02154

or WHOLE EARTH CATALOG



The Glénans Sailing Manual

This is the closest we've seen to a definitive text on small-boat sailing. Clearly illustrated.



The Glénans Sailing Manual

Philippe Harlé
1961; 448 pp.

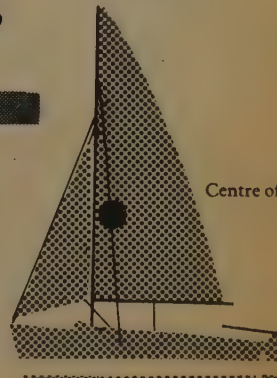
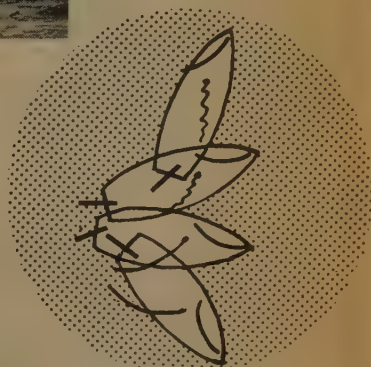
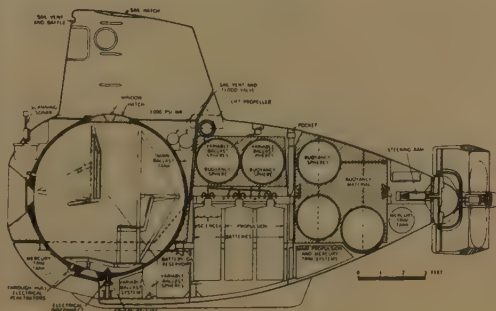
\$10.00 postpaid

from:
John de Graff, Inc.
34 Oak Avenue
Tuckahoe, N. Y. 10707

or WHOLE EARTH CATALOG

As one of its manifold functions, UNESCO has traditionally served as a foster home in Paris for sciences in need of a place to hang their international hats, offering a maximum of independence as long as they were willing to accept a minimum of money. (This is true of science everywhere—the amounts of independence and money are inversely related.) It is something like those little French country cafes that post signs announcing they will take customers who bring their own provisions.

The pendulum of scientific inquiry keeps swinging between observation and synthesis. Aristotle had to resolve such a conflict: according to Sir John Murray, editor of the reports of the Challenger Expedition, Aristotle threw himself into the whirlpool of the Strait of Euripos, separating Euboea from the Greek mainland, because he was unable to explain it.



Centre of Effort (CE)

Centre of Lateral Resistance (CLR)

Bark Canoes and Skin Boats

Design and construction details for all native American boats. Complete.

The Bark Canoes and Skin Boats of North America
Edwin Tappan Adney and Howard I. Chappelle
Smithsonian Institute, USNM Bulletin No. 230

\$3.75 postpaid

from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

or WHOLE EARTH CATALOG

MUSEUM OF HISTORY AND TECHNOLOGY

The
Bark Canoes and Skin Boats
of
North America

Edwin Tappan Adney
Howard I. Chappelle
Museum of History and Technology

SMITHSONIAN INSTITUTION, WASHINGTON, D.C. 20560



White cedar



Black spruce

Wood-splitting techniques

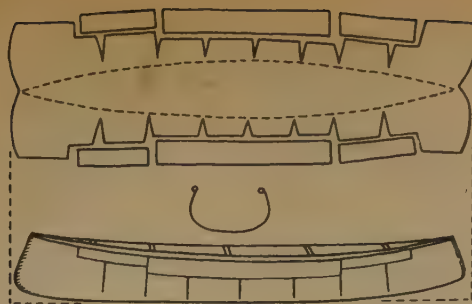
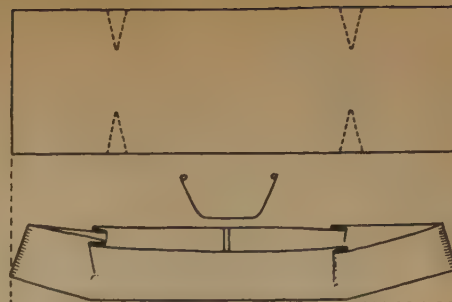
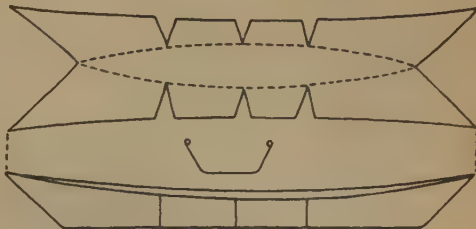


Figure 24

CANOE FORMED by use of gores and panels.



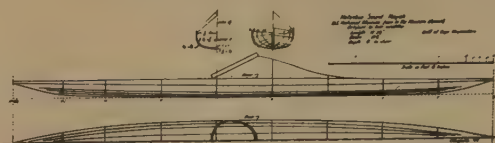
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b

Figure 23

CANOE formed (a) by crimping sides, showing rockered bottom line, and (b) by simple gores in sides. The same effects are obtained by making bark cover of three pieces: sides and bottom.



KOTTZEBUE SOOND KAYAK (Cape Krusenstern), Alaska, formerly in U.S. National Museum, now in Mariner's Museum.

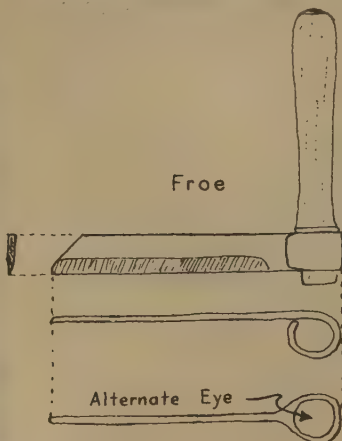
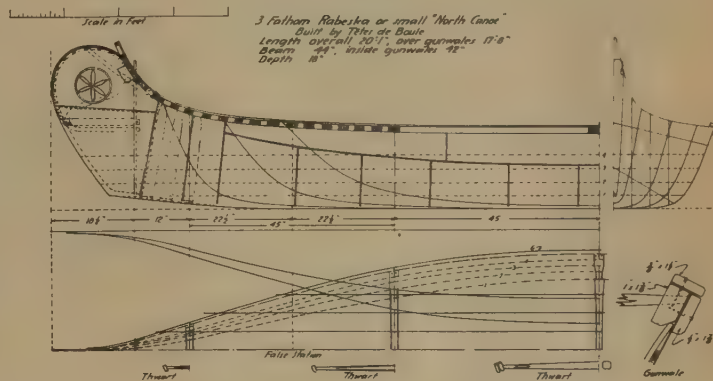


Figure 18 (A) Maine Guide blade; (B) Sugar Island blade; (C) Beavertail blade.



Pole, Paddle & Portage

This is the authoritative book on canoes and canoe-tripping. I paddled northern Wisconsin lakes and rivers for six summers without learning a fraction of the useful information here.

Pole, Paddle & Portage
Bill Riviere
1969, 255 pp.

\$6.95 postpaid

from:
Van Nostrand Reinhold
450 West 33rd Street
New York, N. Y. 10001

or WHOLE EARTH CATALOG

Pole, Paddle & Portage
A Complete Guide to Canoeing
By Bill Riviere



One of the most frequent questions is, "How big a canoe shall I buy?" There is only one answer . . . the biggest one you can lift gracefully.

Dozens of uses are found for the rope: tying gear into the canoe, guying the tent against a stiff blow, rigging a clothes line, lining the craft through turbulent pitch, hanging food supplies out of reach of hungry critters, tying packs for portaging and emergency towing—to name only a few.

The Yukon's canoe routes are long and remote. With the reduction of commercial river traffic—most of this now going over the highways—the rivers are once more deserted. Waters in the Yukon average about 50 degrees even during a hot summer; lakes may not be ice-free until the middle of June and freezing temperatures and snow can be expected by the first of September. The rivers are large, supply points are few and far between. A canoe cruise should, therefore, include at least two, preferably three craft. Early September sees grizzlies feeding on salmon in the shallows so that the Department of Travel suggests that a rifle be carried during this period, to be used only in emergency. . . .

There are compensations for the difficulties, though. From Whitehorse to Dawson City, via the Yukon River, there are no portages during the 450-mile run and the river gradient is only 1 foot per mile. Since this is a former route of the majestic sternwheel steamers, there is available a published log of the river between Whitehorse and the Tanana River (see Appendix).



Because the flat surface of the paddle blades rest on the shoulders, this type of yoke is one of the most comfortable. Photo by Eleanor Riviere.

Klepper

Klepper is the best of the folding boats.
[Suggested by Dee Scarmon]

Catalog
free

from:
Hans Klepper Corp.
35 Union Square West
New York, N. Y. 10003



★ U.S. Navy Diving Manual

the navy probably knows more about water things than any other institution on earth, mainly, sadly, because they have been making war on the oceans for longer than you and i can remember. this is the manual they use to train their divers. good introductory stuff about pressure, buoyancy, anatomy, safety principles, and heavy portions of deep diving techniques. the gear illustrated is generally navy issue equipment, but it is easy enough to make the connection between government and and private manufacturing.

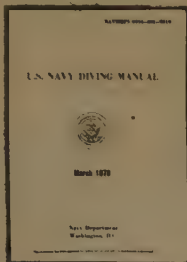
-jd

U.S. Navy Diving Manual
March 1970; 687pp.

\$7.25 postpaid

from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20201

or **WHOLE EARTH CATALOG**



HARNES AND WEIGHT BELT BUCKLES MUST BE TIED UP ACCORDING TO THIS SKETCH, SO THAT BY PULLING THE LOOSE END (A) THE WHOLE HARNES OR WEIGHT BELT BECOMES FREE AT ONCE



FIGURE D-12.—Quick-release loop.

The buoyant effect of liquids is expressed by *Archimedes' principle*. This states that any object wholly or partially immersed in a liquid is buoyed up by a force equal to the weight of the liquid displaced. Figure 1-17 illustrates the following example: A diver, with his helmet and dress, weighs 384 pounds. If he inflates his dress so that he displaces 6.5 cubic feet of water, we will be buoyed up by a force equal to the weight of 6.5 cubic feet of water. Because sea water weighs 64 pounds per cubic foot (1.24 (10)), the buoyant force acting on this diver would be 6.5x64=416 pounds. This force is 32 (416-384) pounds more than his total weight. Such an excess of buoyant force is called positive buoyancy.

Diving without breathing apparatus requires breath holding, and methods of prolonging the length of time the breath can be held are always of interest to skindivers and the like. The discomfort which forces a man to resume breathing arises largely from the two main mechanisms concerned with the control of breathing. Rising carbon dioxide tension directly stimulates the respiratory center, while falling oxygen tension stimulates it via the chemoreceptors. As the degree of stimulation increases, it becomes more and more difficult to restrain the urge to breathe; and at some point, the individual will break and resume breathing.

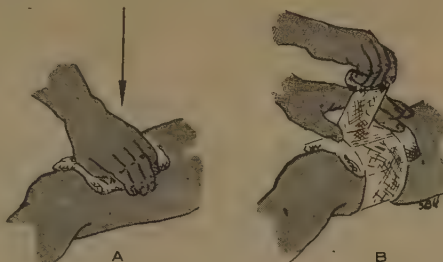


FIGURE A-1.—Direct pressure to control bleeding. A, direct hand pressure over bleeding point to control hemorrhage; B, application of snug bandage to maintain pressure.



Charts

If you're travelling on the water, you're going to need something more than an Esso roadmap to tell you where you are. For United States waters the best charts (the only ones, really. All the others say something like "refer to the appropriate C & GS chart for navigation data") are the ones issued by various government agencies.

Where to get the charts depends upon where you want to go. Charts of the Atlantic, Pacific, and Gulf Coasts, and the Intra-coastal Waterway come from the Coast and Geodetic Survey. The Mississippi River and its tributaries are on Army Corps of Engineers charts, and the Great Lakes are handled by the Lake Survey.

Cost of individual charts varies, most run about a dollar or two, except for the rivers, which come in books. The Missouri River, for instance, comes in two parts and costs \$2.00 a book.

Index maps for the lakes and coasts are free from the appropriate agency. It's easier for the rivers—you tell the Corps which river you want, and they sell you the whole book.

Charts are frequently revised, and you should be using a current one, because the changes can sometimes be big ones. Catalogs are available free from:

Director, Coast & Geodetic Survey
E. S. S. A. Washington Science Center
Rockville, Maryland 20852

Lake Survey District, Corps of Engineers
630 Federal Building and U. S. Court House
Detroit, Michigan 48226

There's no central source for river charts. Appended list is where each can be gotten.

Nautical charts of foreign countries are issued by the U. S. Naval Hydrographic Office, Washington, D. C. 20390. Write to them about a catalog.

John M. Ross
St. Louis, Mo.

Upper Mississippi River

District Engineer
U. S. Army Engr. Dist., St. Paul
1217 U. S. P. O. & Customhouse
St. Paul, Minnesota 55101

District Engineer
U. S. Army Engr. Dist., Rock Island
Clock Tower Building
Rock Island, Illinois 61202

District Engineer
U. S. Army Engr. Dist., St. Louis
906 Olive Street
St. Louis, Missouri 63101

Lower Mississippi River

District Engineer
U. S. Army Engr. Dist., Memphis
668 Federal Office Building
Memphis, Tennessee 38103

District Engineer
U. S. Army Engr. Dist., Vicksburg
P. O. Box 60
Vicksburg, Mississippi, 39180

District Engineer
U. S. Army Engr. Dist., New Orleans
Foot of Prytania Street
New Orleans, Louisiana

Illinois Waterway

District Engineer
U. S. Army Engr. Dist., Chicago
219 South Dearborn Street
Chicago, Illinois 60604

District Engineer
U. S. Army Engr. Dist., St. Louis
906 Olive Street
St. Louis, Missouri 63101

Missouri River

District Engineer
U. S. Army Engr. Dist., Omaha
6012 U. S. P. O. & Court House
Omaha, Nebraska 68102

District Engineer
U. S. Army Engr. Dist., Kansas City
1800 Federal Office Building
Kansas City, Missouri 64106

Kanawha River

District Engineer
U. S. Army Engr. Dist., Huntington
502 8th Street
Huntington, West Virginia 25721

Ohio River

District Engineer
U. S. Army Engr. Dist., Pittsburgh
Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania

District Engineer
U. S. Army Engr. Dist., Huntington
502 8th Street
Huntington, West Virginia 25721

District Engineer
U. S. Army Engr. Dist., Louisville
830 West Broadway
Louisville, Kentucky 40201

Green River

District Engineer
U. S. Army Engr. Dist., Louisville
830 West Broadway
Louisville, Kentucky 40201

Allegheny & Monongahela Rivers

District Engineer
U. S. Army Engr. Dist., Pittsburgh
Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222

Tennessee, Cumberland, Little, Clinch, Emory & Hiwassee Rivers

District Engineer
U. S. Army Engr. Dist., Nashville
P. O. Box 1070
Nashville, Tennessee 37202

Other

District Engineer
U. S. Army Engr. Dist., Little Rock
P. O. Box 867
Little Rock, Arkansas 72203

District Engineer
U. S. Army Engr. Dist., Garrison
Administrative Building
Riverdale, North Dakota

District Engineer
U. S. Army Engr. Dist., Tulsa
P. O. Box 61
Tulsa, Oklahoma

District Engineer
U. S. Army Engr. Dist., Mobile
2301 Airport Boulevard
P. O. Box 1169
Mobile, Alabama 36601

Tennessee Valley Authority
Knoxville, Tennessee

[These last are sources for reservoirs, man-made lakes and such. There's probably some other office for lakes in the Colorado. Check with your local office of the Corps of Engineers]

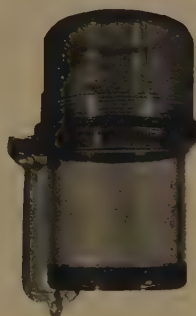
New England Divers

Underwater equipment at wholesale prices.
[Suggested by Warren Riess]

Price List

free

from:
New England Divers Inc.
42 Water Street
Beverly, Mass. 01915



★ Jim Brown Sailing Trimarans

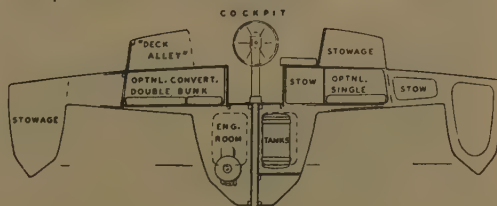
nice bunch of plans.
build your own,
sail to algeria.

-jd

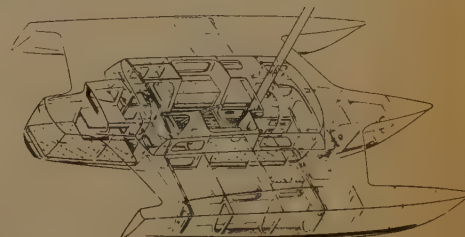
Catalog: \$3.00

Information
free

from:
Jim Brown Sailing Trimarans
Swanton Road
Davenport, California 95017



"BROWN 37"
DESIGN NO. 107



Boatbuilding

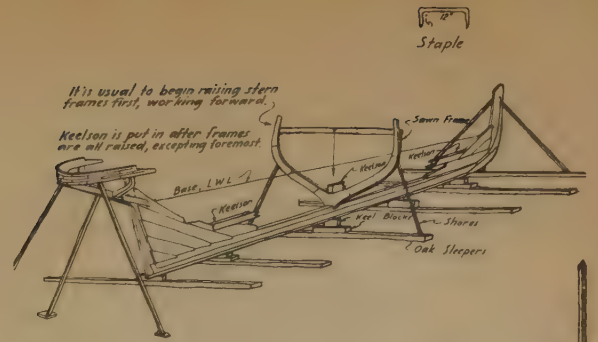
This is the book for the man who wants to put together a boat he can live in and with. Chapelle is full of ideas for getting the maximum use of the limited space on a boat. He is also the easiest way to avoid all the miserable pitfalls one can encounter: leaking hatches and deck seams, toilets that don't work on one tack, or back up and fill the bilge, storage that rots its contents or dumps them on the deck at the first wavelet. There is even a chapter on hand tools and how to use them. The book is generally considered the standard reference of the boatbuilder. Its single drawback is its age (first published in 1940) so it misses the latest developments in materials. Still, it's the best I've seen for staying out of trouble.



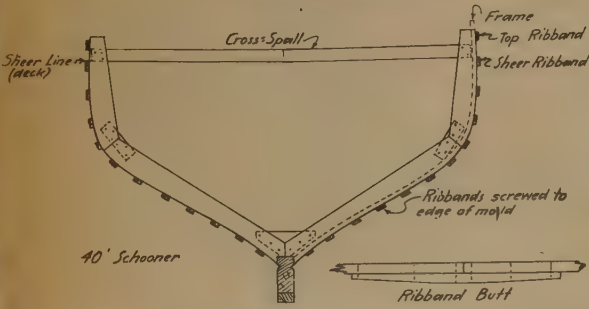
Boatbuilding
Howard I. Chapelle
1941; 624 pp.
\$15.00 postpaid

from:
W. W. Norton & Co., Inc.
55 Fifth Avenue
New York, N. Y. 10003

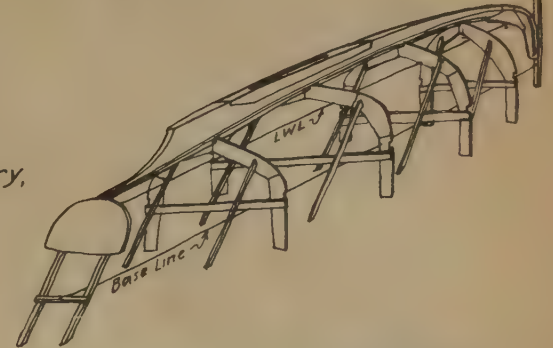
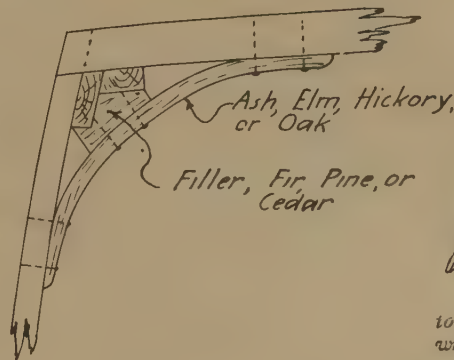
or **WHOLE EARTH CATALOG**



[Reviewed by Christopher E. Prael
Suggested by everybody.]



50. Common method of ribbanding molds. Frame bent to inside of ribbands.

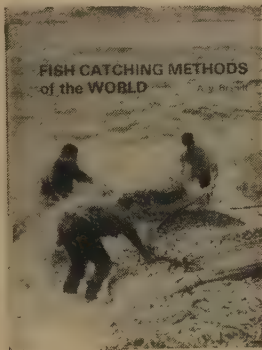


47. Usual setup when building upside down. Molds carried to floor line; braces off center. Centerboard case not set up with keel.

Fish Catching Methods of the World

definitely not about sportfishing; brandt concerns himself with harvest fishing, food fishing, money fishing, desperation fishing, corporation fishing, nets, spears, traps, explosions, harpoons, diving equipment, and fishing with bare hands and teeth. its an expensive book, but i don't know of another that runs through everything the way this one does. it would be of particular use if you are going to going to try circumnavigating the earth on a surfboard.

-jd



Fish Catching Methods of the World
A. von Brandt
1964; 191pp.

\$15.00 postpaid

from:
Fishing News Books Limited
110 Fleet Street
London EC4, England

or

Blackwells
(see page 81)

Fishing without gear but only by means of the hand is the very beginning of man's fishing activities. It is the purest form of a gathering economy, although the fishery, considered as a whole, cannot be regarded as having passed beyond the lowest level of this appropriating form of economy. But from this primitive method of collecting by hand all other fishing techniques have developed. As in the case of all other tools, steps have gradually been taken to develop and improve the power of the human hand. Its range had to be extended, its ability to grasp or strike to be increased. That has been done to a great extent by developing fishing gear. Modern fisheries now have highly developed gear, but in every case the basic idea is to gather and secure the greatest possible quantities. That remains the objective in all developments that have taken place from hand fishing right through to the use of modern large-scale gear.

Fishing with hand grenades as practised after both World Wars was particularly damaging. The hand grenade was actually called "soldier's fishhook". When a hand grenade was exploded in an experiment a diver brought up from the depths ten times more fish than was gathered on the surface.

Fishing by dynamite in Greece became rather notorious, but there it has now also been prohibited for the reasons mentioned. It happens, however, that sharks are attracted by such explosions since they have learnt that the acoustic stimulant meant that they could easily get fish for themselves! Dynamite explosions are therefore now used in some places to attract sharks.

Dynamite in small quantities, however, can be very useful for frightening the fish. Purse seiners in California use small bombs to frighten the fish before the gear is completely pursed and closed. These bombs are called "cherry-bombs" according to their original form. In the Philippines, where fishing with large dip nets is practised, a small explosive is used to stun the encircled fish and so prevent their escape when the net is lifted. This too, however, is illicit, although it is well known that the use of dynamite may possibly determine whether any particular operation is a success or not. If the fish are not bodily damaged, they are stunned only temporarily and will soon recover. This fact also explains why the loss of fish can be relatively small after underwater explosions by blastings, bombs or by firing at a lake during wartime.

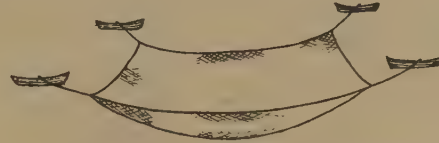


Fig. 220. Norwegian lift net kept by four boats for sea fishing (Brobak, 1952).

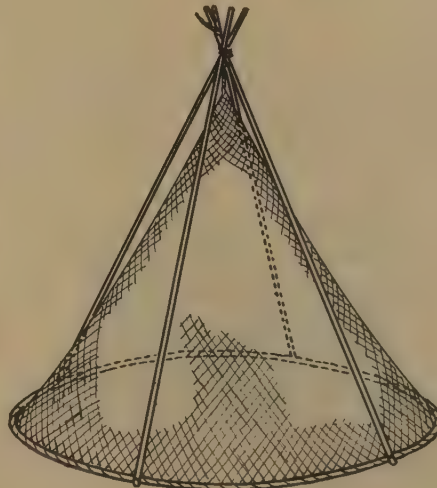


Fig. 231. A lantern net from Central Africa (Monod, 1928).

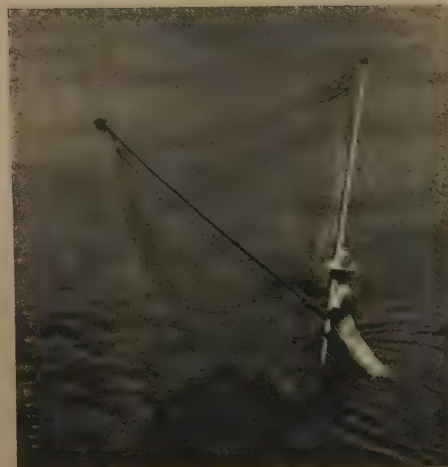


Fig. 146. Another skimming net used in Manila Bay, Philippines.

Avon

Avon is the best of the inflatable boats. Also an excellent liferaft kit.

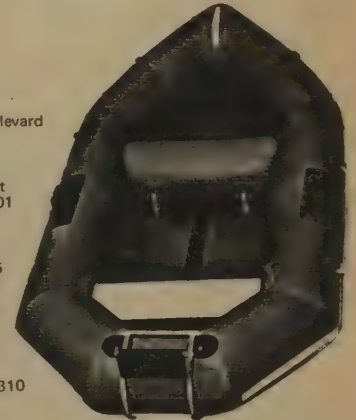
-SB
[Suggested by Vaughn Greene]

Catalog free

from:
Seagull Marine Sales
3107 Washington Boulevard
Venice, CA 90291

Inland Marine Co.
79 East Jackson Street
Wilkes-Barre, PA 18701

The Imtra Corp.
151 Mystic Avenue
Medford, Mass. 02155



\$310

Netcraft Fishing Tackle

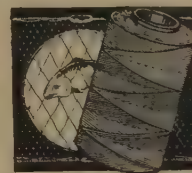
Most fishermen will reach for their checkbook after just one pass through this catalog. A real assortment of fishing paraphernalia is displayed on its pages. Unusual, but solid value items are featured. A precision oiler (\$1.50) that is really leakproof allows you to cure a squeaking reel on the spot, without worrying whether it will get oil all over the rest of the tackle box. For do-it-yourselfers, plug-making kits along with loose treble hooks are offered. Personal experience with their nylon minnow netting (4 feet wide) allows one to recommend it highly for your own net-making. Name brand reels are offered as well, but you will probably do best on these at your local discount store. 168 page catalog—free. Postage extra on orders. Service (2 orders) —above average.

Catalog [Suggested and reviewed by Gerard Ruch]

free

from:
Netcraft Fishing Tackle
3101 Sylvania
Toledo, Ohio 43613

GILL NET NYLON—1/4 lb. Spools



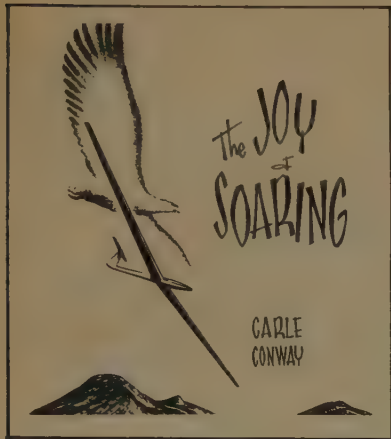
NYLON CORD for making and mending gill nets has certain advantages over linen—the former material. Nylon will not rot or decompose—has many times the life of linen. It is much, much stronger but best of all it "fishes" better as a result of its fineness of thread and lack of bulk. Ideal too as utility sewing and whipping cord wherever strength and lightness are desired.

No. 2B-10R6A ... 1/4 lb. \$1.85

*** The Joy of Soaring**

*like a big bird
quiet whoosh over the wings
alone
wheel
circle
lift.
manual of instruction for glider flight*

-jd

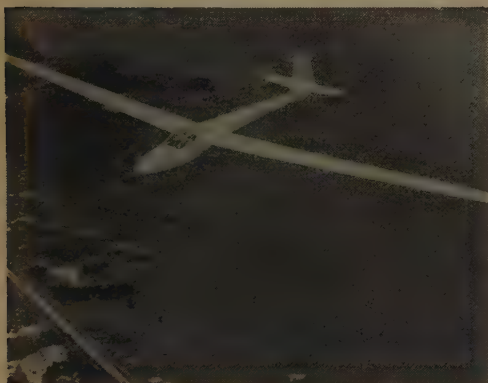


The Joy of Soaring
Conway and Parcell
1969; 134pp.

\$5.75

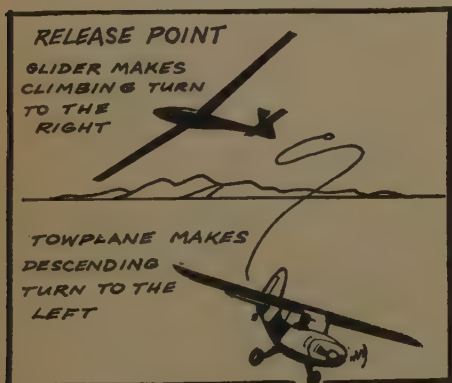
from:
Soaring Society of America
Box 66071
Los Angeles, California 90066

OR
WHOLE EARTH CATALOG



THE BASIC IDEA

The glider's angle of bank and pitch attitude should be fairly well under the pilot's control, and the glider should be equipped with a variometer, airspeed indicator and altimeter. Thus prepared, the pilot can try his hand at thermaling. When the variometer reads up, the pilot commences circling, keeping a sharp eye on the instruments, the attitude of the glider and the position of other traffic. After a full turn he will know at what point of his circle the lift was best and where it was weakest. Mentally, he draws a line through these points, and then moves his circle toward the stronger lift to improve his rate of climb. When the variometer shows a constant rate of climb for a full circle, the glider is perfectly centered in the lift, so the rate of climb is best. Oh happy day! (It seldom happens.)



Stick and Rudder

Subtitle: 'An Explanation of the Art of Flying.' This book was written in 1944 and is still, I understand, the basic flying book. Writing, illustration, comprehensiveness—it's a full-throated classic. I've never flown a plane, but I've flown other stuff, and every page glimmers with useful hints for every kind of flight. Maybe some Sufi pilot would like to do an allegorical review of this profound book.

-SB

Stick and Rudder
Wolfgang Langewiesche
1944; 389pp.

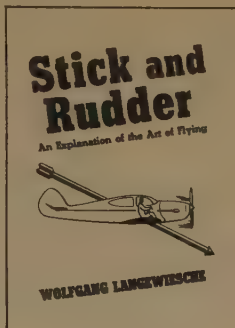
\$8.95 postpaid

from:
McGraw-Hill Book Co
East:
Princeton Road
Hightstown, N.J. 08520

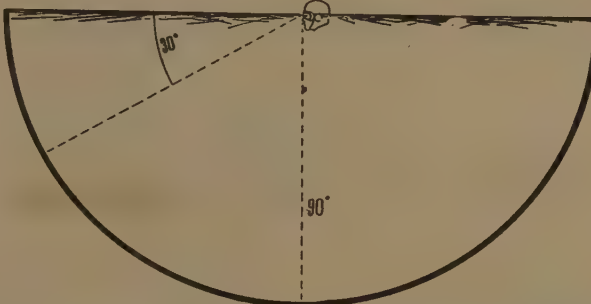
Mid-continent:
Manchester Road
Manchester, Mo. 63062

West:
8171 Redwood Highway
Novato, Ca. 94947

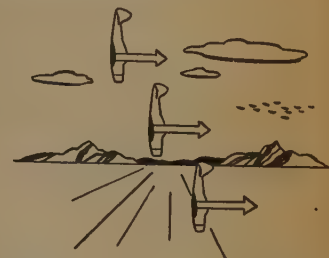
or WHOLE EARTH CATALOG



Flying is done largely with one's imagination! If one's images of the airplane are correct, one's behavior in the airplane will quite naturally and effortlessly also be correct.

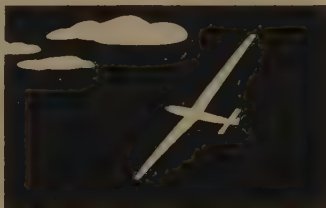


How we should see the ground. For many purposes, a pilot should look at the ground as if it were a bowl, the brim of which is the horizon. When a town appears below him in the distance ahead, it may be possible to say just how many miles ahead it is and how many feet below—and then again, it may not. But it will serve the pilot's thinking much better if he says: This town lies 30 degrees under the horizon.



Vertical dive. Wings develop lift which pushes as shown by arrows. Airplane points straight down but flight path is not straight down.

Stick and Throttle. The so-called 'elevator' is really its up-and-down control. This is hard to believe but is one of the keys to the art of piloting.



BD-4

All reports are that this is the best homebuilt airplane on the market. With the 150 hp engine it seats four, has a useful load of 870 lbs, cruising speed 170 mph, take-off run over 50 ft. obstacle 900 ft., maximum range 1,200 miles. For a new tailormade with similar performance you'd pay \$10,000 more. The kit is intelligently designed.

-SB

[Suggested by John Shuttleworth]

Complete kit with 150 hp Lycoming engine:

\$5920.00 plus shipping

with 180 hp

\$6600.00 plus shipping

Information kits **\$3.50** postpaid

from:

Bede Homebuilts
355 Richmond Road
Cleveland, Ohio 44143



Aeronautical Charts

Mack Taylor is a friend who has a fondness for the blank places on other people's continents. He walks into them in his tennis shoes and makes friends with the chief and walks out and tells stories about how the main hazard in the jungle is dead-eye monkeys who shit on you from the trees. Mack says that often the only maps with information in the blanks are the ONCs—Operational Navigation Charts, available for 50 cents apiece. The Coast and Geodetic Survey Catalog of Aeronautical Charts has a map index for ONCs and sundry other flight maps and publications.

-SB

Catalog

free

from:
Distribution Division C-44
Coast and Geodetic Survey
Rockville, Md. 20852

*** Wild Edible Plants**

there is a need for a good, big, colorful book on the wild edible plants of the united states, north america, planet, and so forth. so far no one has wanted to tackle the job, mainly i suppose because a book like that would be so expensive to produce that getting the price down for someone who wanted to forage for edible goodies would be tough. this book is neither colorful nor planetary, but if you are going to peck around some natural produce from the rocky mountains west, you should be able to use it to help you both identify and cook your meals. the line drawings are abundant, precise, carefully executed.

-jd



Wild Edible Plants of the Western United States
Donald Kirk, Janice Kirk
1970; 307pp.

\$3.95 postpaid

from:
Naturegraph Publishers
Heraldsburg, Ca. 95448
or WHOLE EARTH CATALOG



Tragopogon species (4) (Sunflower Family)
Goatsbeard, Salsify, Oyster Plant

Preparation and Uses: The fleshy roots may be eaten raw or cooked, tasting like oysters or parsnips, according to whom you are speaking. When only a few inches high the young stems, along with the bases of the lower leaves may be used as potherbs.

The coagulated milky juice of these introduced plants was used for chewing by various Indian groups. The juice was considered a remedy for indigestion. In olden times in Greece, Italy, and other Old World areas linen pads were soaked in the distilled juice and applied to bleeding sores and wounds. Pliny records that the juice, when mixed with woman's milk, is a cure-all for disorders of the eyes. *T. porrifolius* is the cultivated Salsify or Oyster Plant.

Habitat and Distribution: The Goatsbeards are found in open ground throughout the West.

Description: These plants are tall, stout, biennial or perennial herbs with fleshy tap-roots, and entire, grasslike, clasping leaves. The yellow or purple flower heads are borne on tall, leafy stems: the matured head resembling a fluffy, giant, dandelion head.

Cannabis sativa (1) (Mulberry Family)
Hemp, Marijuana

Preparation and Uses: In a number of countries of the world Hemp seeds are widely used as food after being parched. They are often ground into meal, or pressed into cakes.

As is well known, the plant is the source of the drug, marijuana, and also of hashish. In Mexico it is grown for its excellent fiber, hemp.

Stalking, Stalking, Stalking

Euell Gibbons's stalking books are all in paperback editions now. they are good, readable field guides, and the three of them together provide a nice library for the forager-nomad who's trying to maximize his dependance on his surroundings. while not keyed to any particular area of the country they seem a bit east coasty to me. good primers and reference material.

-jd

Stalking the Wild Asparagus
1962;70; 303pp.

Stalking the Healthful Herbs
1966;70; 295pp.

Stalking the Blue Eyed Scallop
1964;70; 332pp.

\$2.95 each postpaid

from:
David McCay Company
750 Third Avenue
New York, New York 10017
or WHOLE EARTH CATALOG



WILD ASPARAGUS



ELDERBERRY



CATTAIL



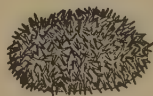
GROUND CHERRY



STINGING NETTLE



GINSENG



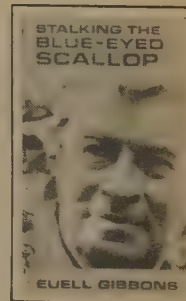
Green Sea Urchin.



Above: Northern Scallop



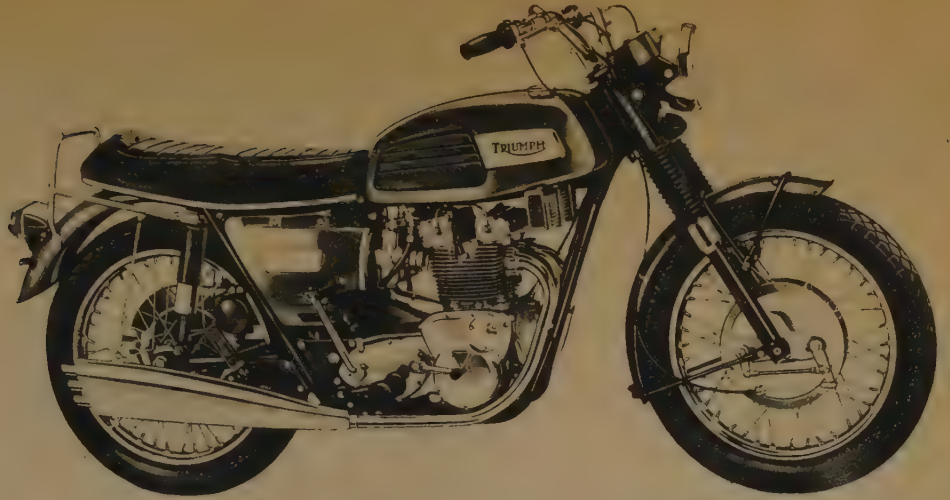
Right: Rock Scallop



Modern Motorcycle Mechanics

ride your motorcycle;
fix your motorcycle.

—jd
[Suggested by Bob McIntyre]



Modern
Motorcycle
Mechanics

Soft cover

J. B. NICHOLSON

Modern Motorcycle Mechanics
J. B. Nicholson
1942, 69; 702 pp.

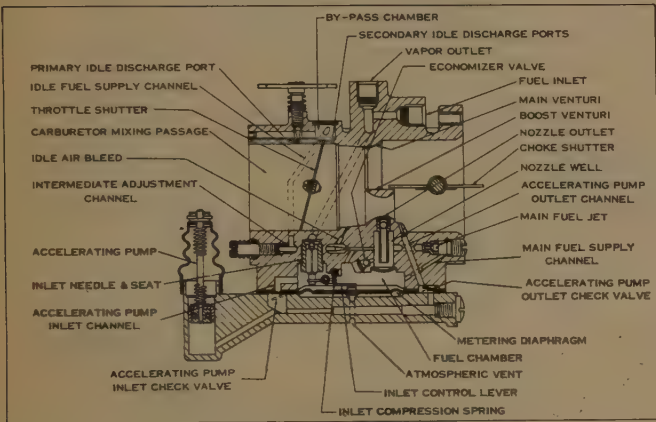
\$8.00 postpaid

from:
Nicholson Brothers Motorcycles, Ltd.
225 Third Avenue North
Saskatoon, Saskatchewan
CANADA

or WHOLE EARTH CATALOG

TRIUMPH SERVICING

HARLEY-DAVIDSON SERVICING

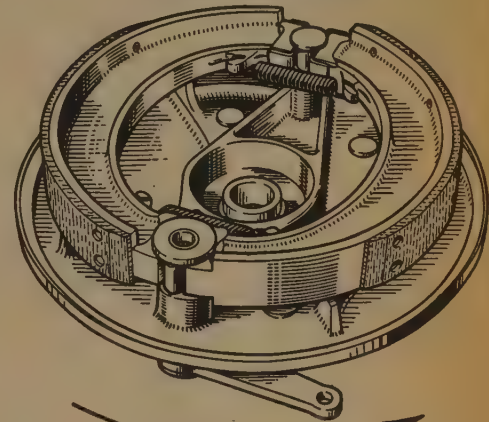


TRIUMPH TAPPET ADJUSTMENT

Adjusting screw is at valve end of rocker on all Triumph models, most B.S.A. and some other makes.

On Triumph models that require .010" tappet clearance, this can be obtained by slackening adjusting screw one-quarter turn beyond point at which it becomes free.

On models that specify .002" inlet and .004" exhaust clearance inlet rocker screws should be adjusted so that rocker is free with barely perceptible shake. Exhaust rocker should have slightly more "shake"



III, 220

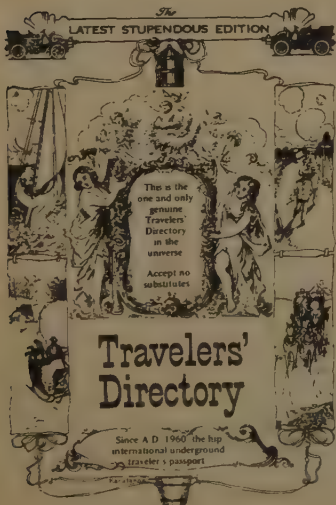
FLOATING TYPE BRAKE SHOE INSTALLATION

Travelers' Directory

Works like this: you have a 56-page directory of other outlaws you can stay with during your travels, and since you're in the book (or you don't get one) they have access to you. Send a 100-word description of yourself and your services and \$3 is how to get into it. Listings are 2/5 female, 3/5 male.

—SB

[Suggested by David Schoengold]



Travelers' Directory

\$3.00 postpaid

from:
Peter Kacalanos
51-02 39th Avenue
Woodside, New York 11377

Home Tanning and Leather Making Guide

Best information on tanning we've seen. If you're eating deer or calf or dog or whatever and throwing the skin away, you don't need this book. Meathead.

—SB



Home Tanning and Leathermaking Guide
A. B. Farnham
1950; 176 pp.

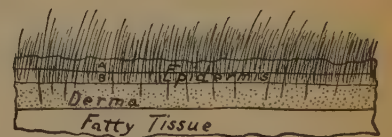
\$1.50 postpaid

from:
Harding's Books
2878 East Main Street
Columbus, Ohio 43209

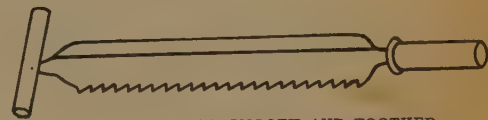
or WHOLE EARTH CATALOG



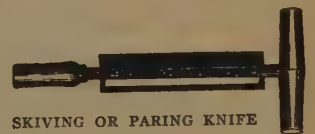
PROPER RIPPING OPEN CUTS FOR A CORRECT PATTERN
The dotted lines show the path of the knife, and the solid lines show the appearance of the hide when spread out.



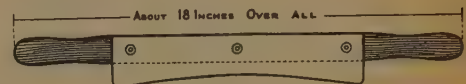
SECTION OF SKIN OR HIDE, (MAGNIFIED)



FLESHING KNIFE—SMOOTH AND TOOTHED



SKIVING OR PARING KNIFE



TWO HANDED SCUDDING KNIFE

Used like Slicker, curved to fit beam. Brass, copper or slate edge, to avoid rust.

... pour the slaked lime into a clean barrel, add enough water to nearly fill and stir it up. See to it that hides are so hung that they are completely covered by the lime water and have as few folds and wrinkles as possible. Keep the barrel covered, except when you stir the lime water and plunge the hides three or four times a day until the hair will come out easily. Early in the liming it will be possible to pull the hair out, but this is not sufficient; by easily we mean until it will come off by rubbing over with the hand. This will require from six to ten days in warm weather and possibly as long as sixteen days in winter.

★ Drinkit

here's a gadget that might be of some use to the dysentery-prone. its a miniature chlorine generator, turns table salt into bacteria zapping chlorine. battery powered, kind of expensive, but probably works better than halazone.

-jd



Drinkit

\$10.00 postpaid (information free)

from:
Functional Items and Designs
Box 7968
Palo Alto, California 94305



The Survival Book

if you really think that you will ever be caught in the desert jungle ice or shit with a book for reference, then this is the one to cover with steel and carry next to your heart.

-jd



The Survival Book

Paul Nesbitt,
Alonzo Pond,
William Allen
1959, 338 pp.

\$1.95 postpaid

from:
Funk and Wagnall's
380 Madison Avenue
New York, New York 10017

or WHOLE EARTH CATALOG

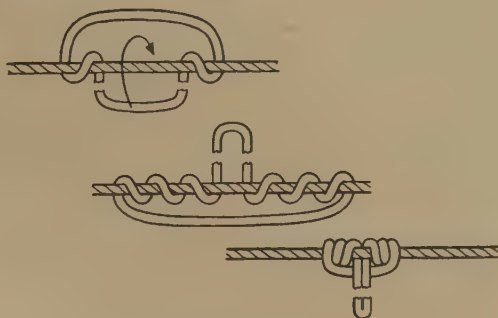
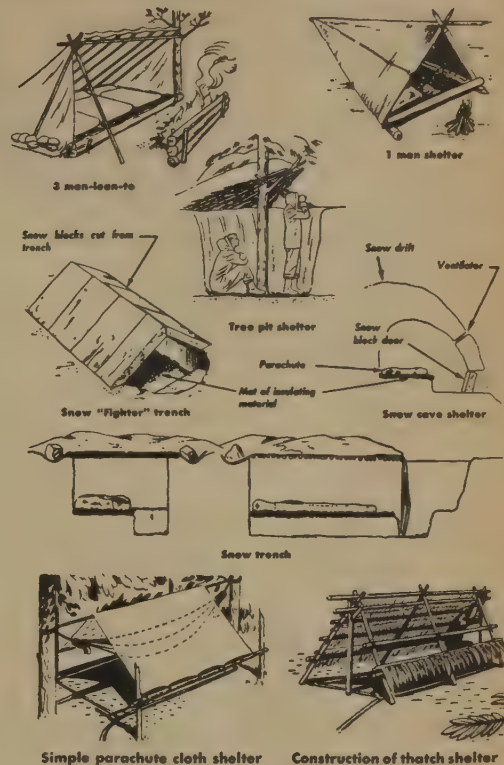
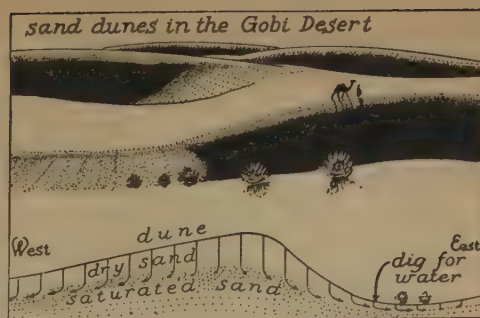


Fig. 4.8. The Prusik Knot.



★ pre in FORM

one of the worst problems that we (the MOVEMENT if you prefer) (the Back-To-The-Land Movement, if you prefer) have is the cost of land if you want to stay here (the United States of America) land on Oahu is selling for five bucks a square foot, land in Montana, about two hundred an acre, in small pieces, if you are lucky. preinform gets past that bother by advocating that we forget that people, the governments, own land, and, just go live somewhere, bit by bit, dig a tunnel, get ready to move soon, figure on moving soon, forget, use, and live, freely. its kinda hard to say if these people will be there, but if they are:

-jd

pre in FORM

four issues: \$2.00

from:
Preform
Box 141
Glendale, California 91209

About 10 days ago we were surprised by four bludgies—three forest rangers and a Ventura County deputy sheriff—while excavating our first (attempted) shelter in Los Padres forest.

The day before, it seems, while we were away, our area was intensively searched for a lost boy. The bludgies discovered our camper, parked deep in the woods. They also noticed we had camouflaged our trails, which further aroused their curiosity. They did not (then) discover our shelter site, 200 yards away, which was covered and adequately concealed.

(Bludgy—rhymes with pudgy—is short for bludgeoner, was coined by Roberta, who doesn't believe that the name of a useful, inoffensive animal (pig) should be an appellation for usually offensive beasts.)

The next morning the bludgies came again to the camper. We were both away from it but, unfortunately, our digging sounds—hammer on digging bar—were audible; we were not yet far underground and so were working with the hatch cover off.

When asked, I explained that the hole was for mineral exploration. (As it turns out, one can't file a claim until one finds minerals of value.) But with our well-crafted entrance-way in place, complete with electric wires, vent pipes and a hatch cover festooned with a bush and surface debris, they didn't believe me.

When asked about our concealed trails, I said something like, "never know what people will come wandering through the forest. If they find camper tracks they will follow them, and my wife might be at the camper alone..." To this one of the bludgies replied, sardonically, "Yeah, never know what kind of people you will meet in the forest."

Had they arrested us, apparently the only charges they could have made were for camping outside of authorized campgrounds and cutting a few tree branches. Our hole was apparently not clearly illegal.

This brings up an interesting question: Why didn't they arrest us? Certainly our behavior was "suspicious." If it had been up to the deputy sheriff—an extremely uptight, paranoid type—I suspect we would have been busted—for further investigation if nothing else. But the forest fuzz were not eager to press charges. Of course we were not doing anything especially heinous in their eyes (our camp site was clean and neat—no trash strewn around, no camp-fire remains, etc.). Also, perhaps, they guessed part of the truth about our hole and were semi-sympathetic. But the main reason, I believe, is their own vulnerability. They really can't control "their" forest and some of them realize it. Their installations and equipment are often "vandalized" even now. And the more they hassle "the public" for inconsequential infractions of their rules the more "vandalism" they must expect. (It wouldn't be difficult to destroy one of their \$50,000 helicopters, for example.)

We returned to our site two days later and salvaged our entrance-way. So our only losses were in time—about three weeks total spent scouting, preparing squat-spot and digging.

Some sheep-person might comment: "You lost three weeks of your time. And in three weeks I can earn the money to pay property taxes. So how are you freer than I?" Of course the "land owner" may still be hassled. (He probably needs a special permit to legally build something underground on his "own" property.) But, more important, we learned from our experience. We are improving our techniques; gaining competence and confidence. Next time we won't be such easy prey. What does the "land owner" gain from his taxes? Only the realization—highly destructive of his self-esteem—that he is rewarding his oppressors, paying for his further enslavement.

So what have we learned? Our loss was directly due to an unlikely coincidence. Had the search happened two weeks earlier we wouldn't have been around; had it happened two weeks later we would have been working with cover in place and warning devices operational, and with camper moved out of the area. But also, in hindsight, we can identify some mistakes:

We failed to check the area for strange footprints upon our return.

We used two-phase resin paint which requires a week of heat-treatment. This caused us to bring the camper to a squat-spot close to the site. (The entrance-way was too heavy to pack a long distance; an alternate error.) Originally we had planned to squat a mile or more from our shelter site.

We should have dug with cover in place as soon as our entrance-way was installed, even though this cramped our working.

We should have spent more time (away from site) designing/building a lighter, more-quickly-installable entrance-way.

But this incident has also prompted a searching re-evaluation of motorized nomadism in general. This is the first time in my two-and-one-half years of living aboard that I have been hassled while parked in a well-prepared squat-spot. While vehicle squat-spots are relatively secure (compared, at least, to "conventional" living accommodations), they are not so safe that we feel fully free. If I hadn't had a driver's license we probably would have been busted. (If you have to get a permit from the Man "to be free," you ain't free.)

Poptent

The best roadside tent by far is the Thermos POPTENT® a dome shaped affair that erects in about one minute without ropes, poles, or stakes and will withstand bad weather remarkably well. Comes in two sizes with sewn in floor, screen door and window. Hexagonal floor about 6½ feet across the flats sleeping two and a child, and a larger one about 8½ feet and 6 feet high that will sleep four but with less wind stability. The smaller one is best, folding up into a bag 5 inches diameter and two feet long weighs 13 lbs. Prices vary from store to store, but expect to pay about \$60 for the small one; \$90 for the big one. Don't pay more. Cut urethane foam 2" thick to fit the floor and you have a good camp for a small car or motorcycle.

[Suggested and Reviewed by J. Baldwin]

Poptent
6½ ft. green

\$65.00 postpaid (\$60 in the store)

from:
WHOLE EARTH CATALOG



Yeti Sleeping Bags

i spent two months looking for a good down sleeping bag made by good downhome people at a good price. well, that wasn't all i did for two months. anyway, just after we threw the ching, page 128, a fellow walked in and said he made sleeping bags, showed me one, and i bought two.

here are the specs:

made to order: send in your height and weight

100% white goose down,

ripstop nylon

nylon net baffles

nylon thread

nylon zipper

doubledstitched at stress points

choice of no zipper, half length zipper, full length zipper.

from 1 to 3 pounds of down

in any of the following (or combination of two) colors:

blue, red, yellow, light or dark green, orange, aqua, black, white.

you can get two that zip together, or one big single bag to fit two people (two times the single price), here is the price schedule for single bags:

zipper type	weight of down in pounds				
	1	1½	2	2½	3
none	\$60	65	70	75	80
½ length	65	70	75	80	85
full length	70	75	80	85	90

-jd

from:
John Williams
Yeti Enterprises
P.O. Box 617
Topanga, California 90290

Ocaté Sleeping Bag

The ideal poor man's sleeping bag. Since it's made of polyurethane foam you've little need for a pad or air mattress; if you get rained on you stay warm—like in a wet suit. The material breathes okay, and by adjusting the hood and body tapes you can be comfortable from room temperature to zero degrees F. The six-foot bag weighs 4½ lbs. The 7 ft. bag can accommodate one big cop or two friendly skinny hippies. Rolling the bag tight is difficult but possible. We're enthusiastic about the Ocaté bag.

-SB

[Suggested by mysterious stranger from New Mexico]

Ocaté Sleeping Bag

6 ft. **\$37.00** postpaid in U.S. (\$35.00 in Truck Store) blue or gold

7 ft. **\$40.35** postpaid in U.S. (\$38.00 in Truck Store) blue or gold

from:
WHOLE EARTH CATALOG

4 ft. & 5 ft. models also available; takes longer.

They may be obtainable straight from Ocaté:
Ocaté Corporation
P.O. Box 2368
Santa Fe, New Mexico 87501

You can get Ocaté at Abercrombie & Fitch, but it costs more.



Amazing Tetrahedron Tent Company

This is a small (just beginning) business and not yet self-supporting. The tent is our own design and is built with quality in mind, using all nylon fabric of the best quality for this purpose that we can procure. The tent has been used satisfactorily in high mountain storm conditions and on a three month Alaskan low land trip, during which much bad weather was encountered. Presently the tent weighs approximately 5 pounds, breakdown as follows: tent 3 pounds, pole 1 pound, rain fly 1 pound.

We have experimented with various pole arrangements, 3 pole, 2 pole, and 1 pole. We are becoming more and more convinced that 1 pole Tetrahedrons are where it's at. Advantages being lightweight, simplicity of use even in severe conditions (cold hands, darkness, etc.) besides being more aesthetically pleasing.

The tent design is basically a tetrahedron with one corner truncated so that the floor plan is like this:



... going up to a peak. At present we have two tunnel doors on either side of the short end of the tent. These doors are a standard design which will keep out the most terrible blizzards yet not freeze up or jam as zippers do. A zipper door can also be put in, opening at the short end and this is considerably more convenient for summer use.

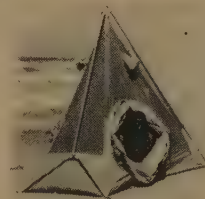
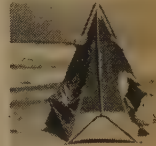
The top ¼ of the tent is of uncoated fabric for breathing, therefore it is not waterproof and a rain fly is necessary for summer use. The rain fly is a flat sheet of coated nylon approximately 9 feet by 7½ feet and ties together in a special way to fit the tent. Price of the tent, fly, and pole is \$100, including a stuff bag necessary nylon cord, and stakes.

[Reviewed by Carl Dreisbach]

Amazing Tetrahedron Tent

\$100.00

from:
Amazing Tetrahedron Tent Co.
Box 8552
Stanford, California 94305



JanSport Packs

this is the review we received of JanSport packs from Dennis Hollenberg.

A remarkable system because its oval design and weldless construction allow the Jan Sport pack frame to flex when strained by shocks and heavy loads, avoiding the sad broken-parallelogram demise of some ladder types.

Each frame section of tubular aluminum is swaged and fitted in an admirably craftsman-like manner and compressed to its mate by a tensional system of webbed nylon belts. The frame system is in dynamic equilibrium, continuously accommodating the load for more dependable balance; a special model is made for the high angle freaks.

Hefty machined blocks connect the cross pieces, enabling both easy height adjustment and disassembly to fit in a suitcase for that Himalayan assault. In fact, it has more provisions for adjustment than any other unit. Packing with a Jan Sport is like getting an extra pair of arms.

-DH

we sent for a pack, tried it a little, and decided it was a quality pack, so we got in touch with Murray Pletz, Mr. JanSport, and asked him to work up a series of good packs for us. here's what he came up with. it looks to be the best deal in packs we've seen. everything in forest green.

-jd

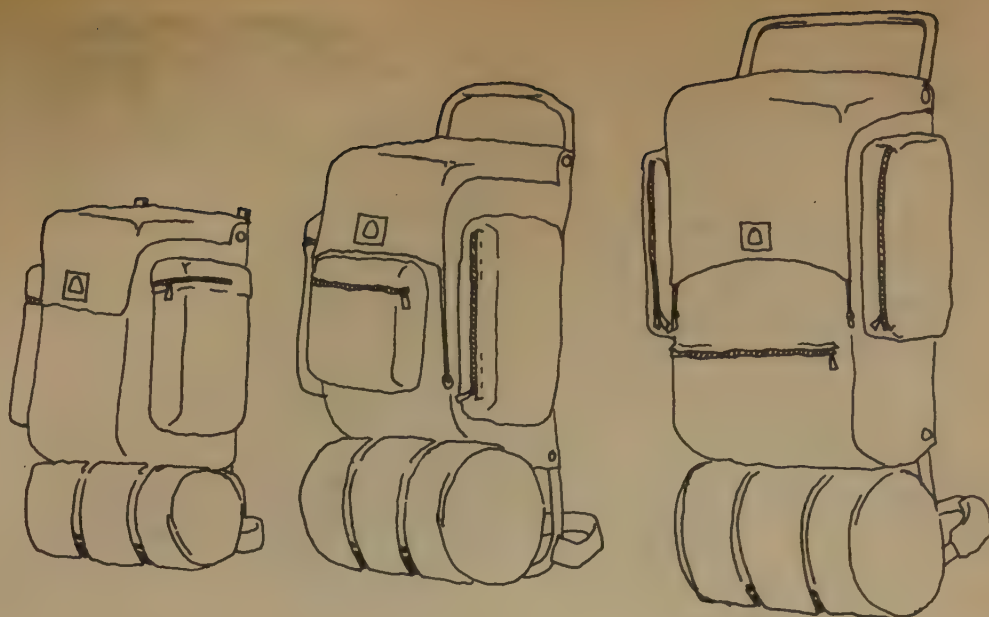
from:
Jan Sport Company
17010 Aurora North
Seattle, Washington 98133

or WHOLE EARTH CATALOG

Earthchild pack: \$20.00 postpaid
(for kids and little people in general)

Earthscout pack: \$32.00 postpaid
(middle range all purpose packing and hitchhiking)

Earthexplorer pack: \$45.00 postpaid
(superpack for serious packing, putting your household on your back)



USGS Maps

I would suggest the enclosed as a substitute for the current piece on U.S.G.S. Topographic Maps (Spring 1970 Catalog, p. 117). Although I agree fully with Drew Langsner's evaluation of the maps, I found his description incorrect and incomplete in some details.

Thank you very much for your consideration.

[Suggested and Reviewed by Craig K. Harris]

Several U.S. government agencies publish maps that can be useful for traveling, hiking, camping, buying land, rock hunting, sailing, or wallpaper. The United States Geological Survey publishes both greatly detailed and larger scale maps. The maps are available for almost any area in the United States. Most have been revised within the past ten years, but some are as old as twenty-five years.

The most detailed series (scale 1:24,000) includes contour intervals, type of earth surface, roads, trails, railroads, buildings, mines, shipwrecks, reefs, rocks, and the boundaries of counties, townships, parks, forests, and reservations, among other things. The less detailed series include these things as scale permits.

The different series of U.S.G.S. maps are usually designated by scale.

scale	quadrangle	1 inch	size	contour intervals.
1:24,000	7.5x7.5 min	2,000 ft.	22x27"	10 ft.
1:62,500	15x15 min	1 mile	17x21"	20ft.
1:250,000	1x2 deg	4 miles	17x24"	50 ft.
1:500,000	2x4 deg	8 miles	varies	
1:1,000,000	4x6 deg	16 miles	varies	

U.S. Geological Survey
Washington Distribution Section
1200 South Eads Street
Arlington, Virginia 22202

U.S. Geological Survey
Federal Center
Denver Colorado 80225

Army Map Service
San Antonio Field Office
Building 4011
Ft. Sam Houston, Texas 78234

The U.S.G.S. also publishes metropolitan area maps, national park maps, state maps, and maps of the United States.

The best way to get maps is to write the U.S.G.S. and request an index map for the state(s) in which you're interested. Index maps are free. The index map will indicate all the maps of each scale available for that state, plus tell you of distribution centers and stores in the state that carry the maps. They will also send a good booklet telling about the different maps and about the mapping process. With the index and the booklet you can better decide which maps you want. Turn-around time at the U.S.G.S. is about ten days.

The price for the 7.5 min and 15 min maps is 50 cents each; the 1x2 degree maps cost 75 cents. Prices on the others vary. To obtain the indexes or to order maps, write (whichever is closer):

Canadian topographical maps can be obtained by writing:
Map Distribution Office
Department of Mining and Technical Surveys
615 Booth Street
Ottawa, Ontario, Canada

Detailed recreation maps of the National Forests can be obtained from the regional offices of the Forest Service. To get a map of all the National Forests, you have to write:
Forest Service
Department of Agriculture
Washington D.C. 20250

This map will tell you the address of the appropriate regional office for the forest you're interested in.

Kelty Packs

Famous packs.

-SB

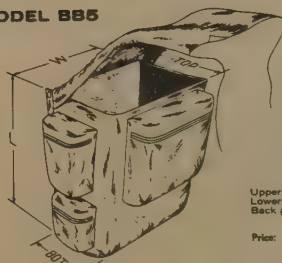
Catalog

free

from:
Kelty Pack
1801 Victory Boulevard
Glendale, California 91202



MODEL BBS



Developed primarily for expedition work, the MODEL BBS is a very large, open-style packbag. It is made with increased profile and equipped with five large outside pockets. Do not order this packbag model unless you actually need the capacity it offers. Model BBS available in three sizes only - see chart.
Colors: Olive Green or Red
See Page 7 for order information
Upper pockets: 3 1/4 x 6 1/2 x 8" - 11" zipper
Lower pockets: 2 1/2 x 6" x 8" - 9" zipper
Back pocket: 2 1/2 x 11" x 14" - 14" zipper
*7 1/2 for medium packbag
Price: \$44.95

SPECIFICATIONS

MODEL	SIZE	WEIGHT	VOLUME	L	W	TOP	BOT.
BBS	MEDIUM	23	3090	18	14	9 3/4	6 3/4
	LARGE	25	3680	20	15	10 1/4	7 1/4
	EXTRA LARGE	26	3890	22	15	10 1/4	7 1/4

Weight in ounces - includes packbag fittings
Holds Open (Pipes, poles and wires)
Volume in cubic inches - includes capacity of pockets
Dimensions, in inches, are approximate



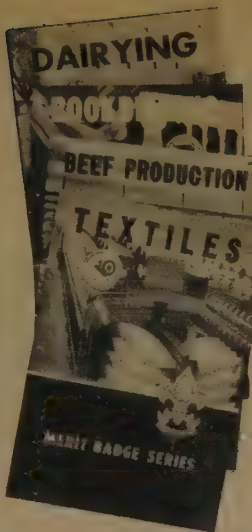
Learning

★ Boy Scout Books

stealing ideas from the boy scouts is a little like getting the benefit of war research. i was a cub once, and never got used to the wearing of uniforms. it was a nice blue shirt, the belt buckle was solid, but neckerchiefs seemed a little buffalo bill even then, and the pictures of boys in knee pants always pissed me off. about the only thing i remember learning, other than the various salutes, was how to make candystripe crepepaper streamers by tying two pieces of crepepaper to two table legs, and the other two ends to an eggbeater. but that could be my memory. anyway, i never made it past webelos, because i knew that all indians weren't feathered and healthy. there's some good information here, twenty years later. the fieldbook for boys and men is the most complete outdoorsy reference work at the cheapest price i know, and the merit badge series will teach just about anything from citizenship to hog production. learn from the scouts, maybe even become a den mother.

-jd

[Suggested by the Texas Hamiltons]



Wolf, Bear, Lion, and Webelos \$0.75 each postpaid

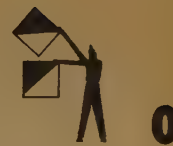
Boy Scout Handbook \$1.25 postpaid

Fieldbook for Boys and Men \$1.95 postpaid

Merit Badge Series \$0.45 each, postpaid

from:
Boy Scouts of America
321 South Green Street
Chicago 7, Illinois 60607

or
Boy Scouts of America
485 Brannan Street
San Francisco, California 94107



O



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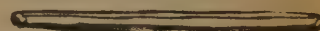
K



Training keets takes patience. Teach yours how to hold things in his beak and he'll soon perform like this.

Number	Copyright	Number	Copyright	Number	Copyright
3304	1949	3349	1955	3382	1942
3301	1944	3287	1942	3386	1953
3381	1941	3317	1955	3314	1954
3321	1943	3238	1957	3331	1957
3320	1944	3318	1957	3377	1944
3303	1944			3251	1957
3324	1943	3295	1954	3373	1944
3306	1956	3288	1951	3375	1946
3293	1954	3302	1956	3333	1947
3313	1953	3360	1953	3292	1954
3340	1958			3393	1953
3352	1957	3240	1944	3813	1944
3282	1938	3284	1953	3392	1952
3378	1954	3380	1944	3347	1958
3379	1941	3361	1956	3815	1942
		3329	1943	3384	1940
3307	1942	3298	1958	3322	1945
3256	1946	3358	1958	3332	1945
3811	1962	3348	1944	3370	1952
3326	1957	3812	1943	3237	1940
3290	1953	3353	1944	3364	1950
3374	1949	3310	1951	3283	1957
3257	1939	3278	1944	3291	1952
3341	1948	3337	1956		1952
3345	1953	3338	1953	3359	1951
3277	1949	3339A	1952	3327	1960
3330	1950	3351	1952	3299	1960
3289A	1952			3743	1953
3367	1936	3312A	1945	3816	1943
3206	1956	3336	1953	3300	1952
3344	1930	3285	1953		1937
		3372	1954	3315	1952
3345	1945	3286	1957	3316A	1952
		3281	1956		1941
3346	1958	3334	1958		
		3369			

FIRE BY FRICTION



Spindle is 1 foot long, about 3/4 inch thick. Cut it octagonal. Round one end, taper the other.



Fireboard is about 4 inches wide, 1/2 inch thick, 1 foot long. Gauge hollow for spindle. Cut V-shaped cut almost to center of spindle hollow.



Bow is stiff branch, 2 1/2 feet long, with strong leather thong.

Hand piece is chunk of wood with hole to fit spindle top.



Tinder may be shredded cedar bark, fine wood shavings, mouse nest.

Good woods for fire by friction: yucca, basswood, elm, willow, white cedar, aspen, cottonwood.

AMERICAN MORSE CODE

A	— · — ·	J	— · — · — ·	S	— · — · — ·
B	— · — · — ·	K	— · — · — ·	T	— · — · — ·
C	— · — · — ·	L	— · — · — ·	U	— · — · — ·
D	— · — · — ·	M	— · — · — ·	V	— · — · — ·
E	— · — · — ·	N	— · — · — ·	W	— · — · — ·
F	— · — · — ·	O	— · — · — ·	X	— · — · — ·
G	— · — · — ·	P	— · — · — ·	Y	— · — · — ·
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Figures

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Punctuation

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The SQUARE KNOT is especially useful in first aid work for tying bandages. You learned it, of course, for Tenderfoot.



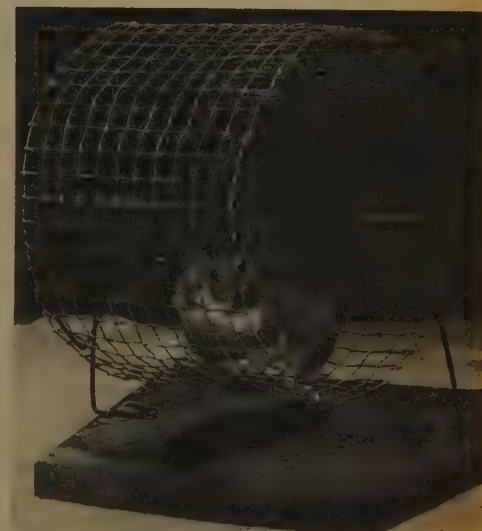
"On my honor I will do my best to do my duty to God and my country and to obey the Scout Law; to help other people at all times; to keep myself physically strong, mentally awake, and morally straight."

A bean hole is for cooking beans (and other things). First, the beans:

BAKED BEANS

- 1 1/2 pounds pea beans
- 1 large onion, chopped (1/4 cup catsup, optional)
- 1 tablespoon dry mustard
- 1 teaspoon salt
- 1/2 pound salt pork, cut in inch cubes
- 1/2 cup brown sugar or 3/8 cup molasses
- 1/4 teaspoon pepper

Don't start an argument—if you don't like the recipe, change it. (Nothing like a bean recipe to start a hassle!) Wash, cull (watch for stones), and soak beans overnight, covered by 3 inches of water, in a large pot. Then bring to a boil and simmer about 45 minutes until a bean skin pops when you blow on it. Drain beans, saving 2 cups of water. Mix everything thoroughly in your bean pot, Dutch oven, or whatever, saving a few extra chunks of pork for the top. Add bean water. Cover pot tightly. Bake 6 to 8 hours in hole. Uncover cautiously. Open lid humbly. Eat!



Make an exercising wheel for your hamster. Materials: a coat hanger, 26-inch strip of screening, staples, and two 1/4-inch tubes.

Monday Night Class

Steve Gaskin mixes acid, the East, vibes, his audience, himself, and the universe real nice. He has been doing an informal weekly sermon for the past year or so and this book is simply transcriptions of several of his raps with the people. Its simple and straight; it helps me stay loose. Printed in purple.

[Reviewed by Merce]



Monday Night Class
Stephen
1970

\$1.95 postpaid

from:
Book People
2940 7th Street
Berkeley, California 94710

or **WHOLE EARTH CATALOG**

Keep your attention on a single point as long as you want. You have to learn how to be loose to do it, it's not a thing you can do if you're tight, cause if you're tight your attention will tend to fidget. You gotta learn how to be just a loose observer. You have to really not give a damn too much about what's going on out there in front. You know, you gotta just look at it and dig it and see what it is and get the informational quality of it. . . . Like you're supposed to groove. You're supposed to just really be grooving as hard as you can. There's a Zen master thing that says, Although my heart is on fire, my eyes are as cold as ashes. You know. So then you can keep concentration really well when you're not attached. That's a loose place you have to be to play music or to ride a bike or any of those kind of places, where you have to have that loose no-mind. . . let it do it, concentrate it there, put it there in one place. Yeah.

We're all like little energy transmuters. You know those things that float in swimming pools and go gsshhhwck and suck down all the leaves and bugs and sticks and stuff. That's what we are. You wander around through the world and take in all the vibes, transmute 'em through serenity and what have you, good dope, and put 'em back out, all vacuumed. The way we do it is that we absorb the body energy at this level and then transmute it. . . We do other people's homework as if it were our own. We do the homework of all the people around us. That's how we help out, you know, by just refining those vibes everywhere we go.

In most square folks' ground rules it's considered impolite to notice that your conversational partner is neurotic. And what you do about that's another thing. Jesus, when he was giving the instructions to the apostles, told 'em when you go into a house, feel the house, and let your peace descend on the house, and if the house accepts your peace then you're cool. You stay there. But if the house rejects your peace go forth from that house and go forth from that town and shake the dust from your feet. Because there's a whole lot of folks aching to know. Don't bother arguing with somebody that don't want to know.

Laughing? I think laughing's just free good karma. You know, all the time that you're laughing you're wide open, you're non-linear, non-directional. . . . It may be the highest form of communication that we can do by mouth. Cause somebody can drop your cut-glass vase on the floor. . . and you can laugh and it's cool.

And you really got to be careful about that kind of thing, cause when someone's drunk, a lot of their consciousness is knocked out, and they're running a lot on their subconscious. . . and they're pretty telepathic and stuff at that stage, drunks and kids and people like that, don't ever lie to 'em. Don't lie to acidheads either. It's a waste of time.

Well, here's the thing that is one of the basic spiritual teachings that's been around for like ten or twelve thousand years. . . and it is that if you just quit paying attention to bad trips, pull your juice out of them, that they'll run out of juice, and they'll run down and stop. And they do do that, because the karma is a little slower when you're not stoned, but it's the same karma and it works the same way. . . it's just a little slower, but it's not a bit different than when you're ripped. And where you cast your head you get that kind of thing. As ye sow so shall ye reap. Well, that means that in an energy relationship if you feel that somebody's on a negative trip, first you have to be accepting and free enough to say that they can do that if they want to. . . cause they got free will. . . everybody's got free will. The next thing is that you also have a choice in the matter and that's whether you pay any attention to it or not. And if you pay attention. . . this is something I've found out so many times trying to take care of people who bring me a bad trip to sort out for them—you can straighten them and let go of them and they'll dive right back into it. . . cause they're looking for it, really. People who really want help, you just make a suggestion and they do it. . . and they get straight. I've seen that happen lots of times. If you put a lot of attention and energy into a down trip, then you're stepping on a down elevator. And the vibe may be exhilarating for awhile, but it gets pratty funky the farther down you go.

Astrology

Reviewing one or even two or three books which deal clearly, fully and reverently with astrology is very difficult. There are so many books in print on the subject and so many are extremely superficial and exoteric. Others are written with great sincerity by excellent astrologers, but the field is limitless and new research is being contributed all the time. When picking up an astrology book I always remember the author is offering only point of view of an ancient science which in the end must rely, on the intuition of the individual astrologer.

Margaret Hone's book, *A Modern Text-Book of Astrology*, was introduced to me several years ago as a good basis which can be used as an adequate foundation for branching off into other astrologers and varied approaches. And it is just that. The book has chapters on basic concepts — the planets, the zodiacal signs, and the houses—on the necessary computations for the erection of a chart, on methods of charting and systems of house divisions, on interpretation, on aspects, on progressions, on the historical background of astrology, on the duty of an astrologer and more.

There is a somewhat similar book by Marc Edmond Jones called *How to Learn Astrology*. In its language, in its expression, Jones' book is more simple, more elementary than the book by Margaret Hone. Jones begins by showing the great importance of attaining a feeling for the overall pattern of a chart. From there he goes on to cover the same concepts as Margaret Hone does: One thing bothers me about *How to Learn Astrology*—Jones uses one approach and fails to tell the reader of the existence of other methods in dealing with astrology. In *A Modern Text-Book of Astrology* Margaret Hone asks the reader to consider and work with all techniques. Hone's book gives a vague outline and expressly prods the reader to discover for himself.

From this point on, the stars are the limit to the study of astrology. I am very much drawn to Dane Rudhyar. He is very prolific, sort of the Dean of Philosophical Astrologers. His emphasis is on astrology as a tool for full integration of the native with himself and with the Universe. His series, the *Humanistic Astrology Series*, is a good place to start reading his work. There are three 45-page pamphlets in it so far.

Alan Leo has a series of textbooks on astrology which are superior. He really covers the subject but a lot of time and money are needed to get into it all.

[Reviewed by George de Alth]



FIG. 5
THE SIGNS IN RELATION TO THE BODY



FIG. 21
USUAL METHOD OF CHARTING BY THE PLACIDEAN SYSTEM

Poster

This horoscope poster has a great deal of good information on it. It has the meaning of all the rising signs and the planetary powers in all the signs. It has the definitions of a rising sign and a sun sign. Included are the decanates, the critical degrees and the various aspects with their orbs. The zodiac itself is a synthesis of the knowledge available today—the quadruplicities and triplicities, critical degrees, signs and houses, parts of the body which are ruled, and symbolic functions and dates. Perspectives of solar and lunar eclipses and the lunar cycle round out the over-all design.

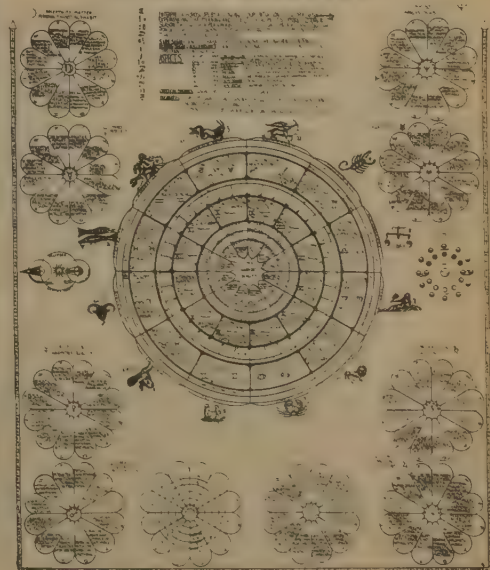
What is important is that with this chart one has sufficient information to study astrology with the real tool—intuition. There are other things on this chart but it will be best to let the reader discover them for himself. Its size is 22" x 28". Best of all one can fold it up and take it anywhere if one feels like studying astrology without carrying a large book.

Horoscope Poster

\$1.90 postpaid

from:
Richard Cullen
415 E. 9 Street
New York, New York 10009

THE AGE OF AQUARIUS



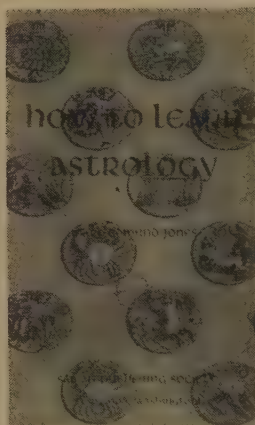
THE MODERN TEXT-BOOK OF ASTROLOGY

by
MARGARET E. HONE
D.F. ASTROL.S.

Modern Text-Book of Astrology
Margaret Hone
1951; 320pp.

\$6.50 postpaid

from:
Samuel Weiser Inc.
734 Broadway
New York, New York 10003
or **WHOLE EARTHCATALOG**



How to Learn Astrology
Marc Edmond Jones
1969; 197pp.

\$7.50 postpaid

from:
Llewellyn Publications
P.O. Box 3383
St. Paul, Minn. 55101
or **WHOLE EARTH CATALOG**

Astrology for All
Casting the Horoscope
How to Judge a Nativity
Art of Synthesis
The Progressed Horoscope
Key to Your Own Nativity
Esoteric Astrology
all by Alan Leo

\$7.50 postpaid

from:
Samuel Weiser, Inc.
734 Broadway
New York, New York 10003

Humanistic Astrology Series,
Vol. I, II, III
Dane Rudhyar

\$1.00 each

from:
CSA Press
Lakemont, Georgia 30652

Crazy Comics

These ain't your run-of-the-mill comic books. At times they are gross, beautiful, or violent. Best of all, they can be very funny, and a good reminder not to take things (such as yourself) too seriously. Who sez comic books ain't relevant?

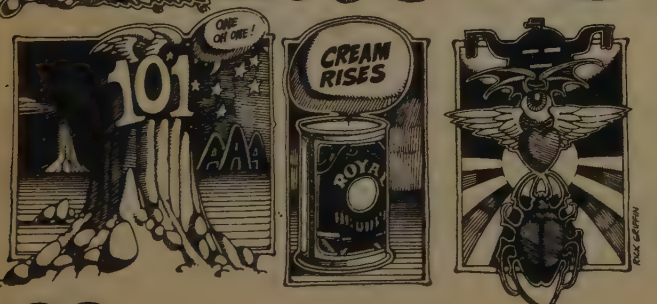
Steamboat

(Adults only)
Mail order lists from:

Print-Mint
830 Folger Avenue
Berkeley, California 94710

Rip-Off Press
Box 14158
San Francisco, California 94114

San Francisco Comic Book Co.
3339 23rd Street
San Francisco, California 94110



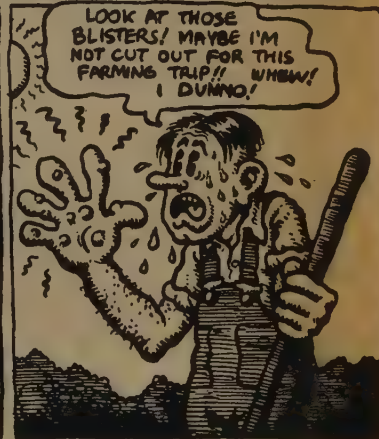
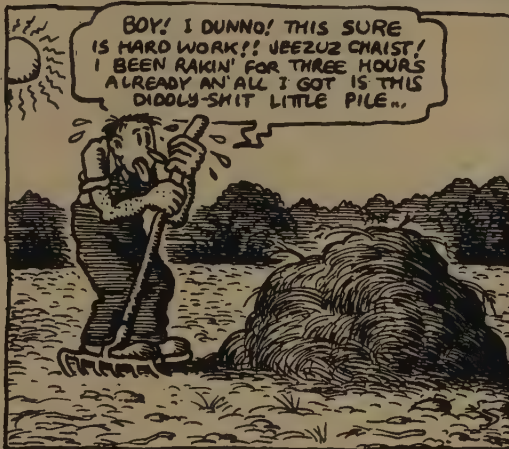
HEY! GUESS WHAT?
**IT'S A
WORKADAY
WORLD**



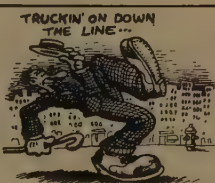
LET'S LOOK IN ON
FLAKEY FOOT AND SEE
HOW HE'S DOING IN HIS
NEW LIFE AS A FARM-
ER! WE FIND HIM IN
THE MIST OF RAKING
UP SOME HAY THAT'S
BEEN CUT...

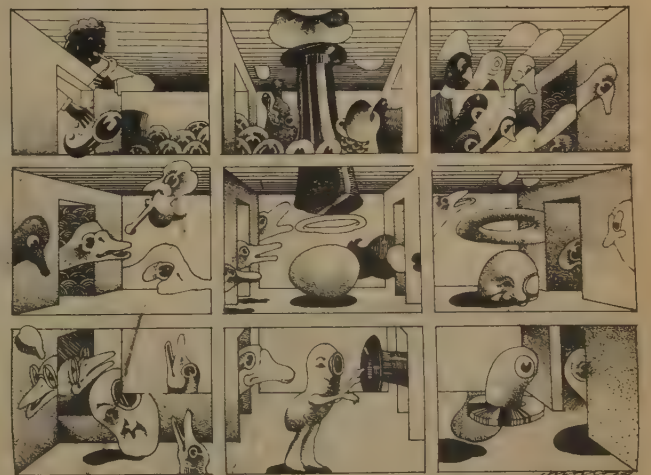
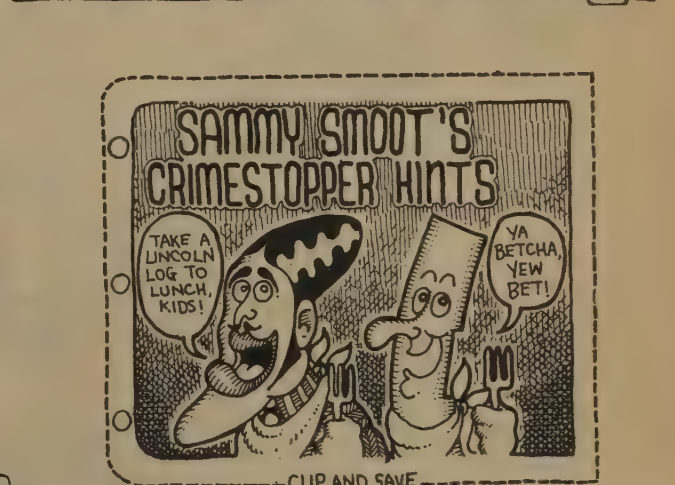
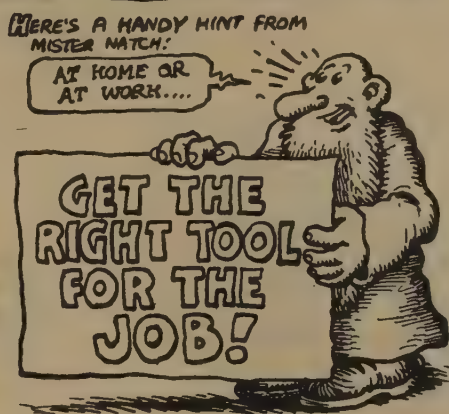
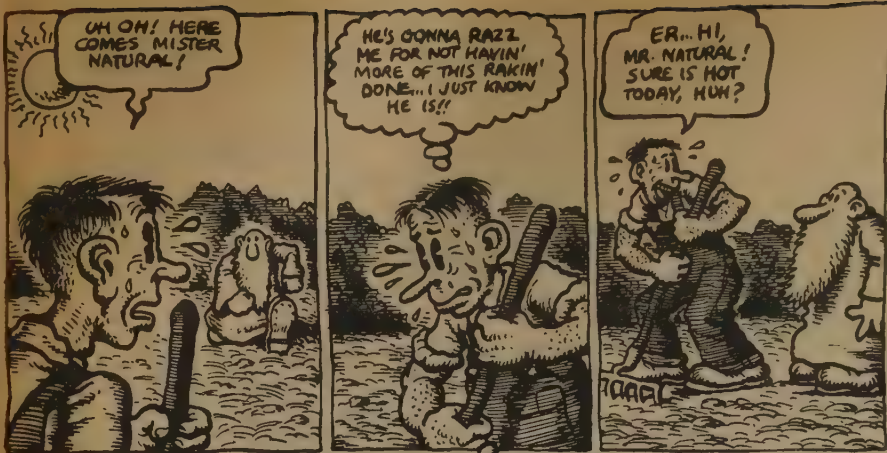


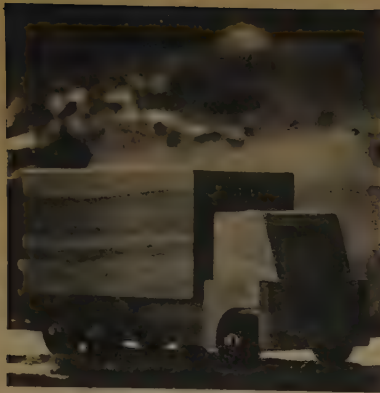
©1970 by THOMAS WOODS STEFF, R. CRUMB



Keep on Truckin'...

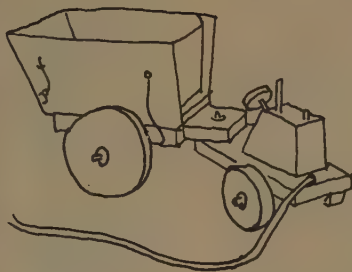
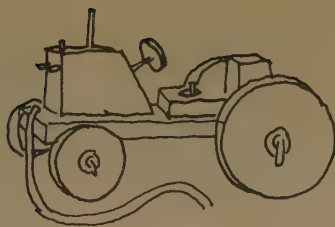






*** Wooden Toys**

*little elves live,
tink, tink, tink,
turning out toys,
wooden toys.*



Catalog
free

from:
Everdale Toys
Box 29
Hillsburgh, Ontario
CANADA

Catalog
free

from:
The Toy Shop
Southwest Harbor, Maine 07679

[Suggested by Joann Yellott]

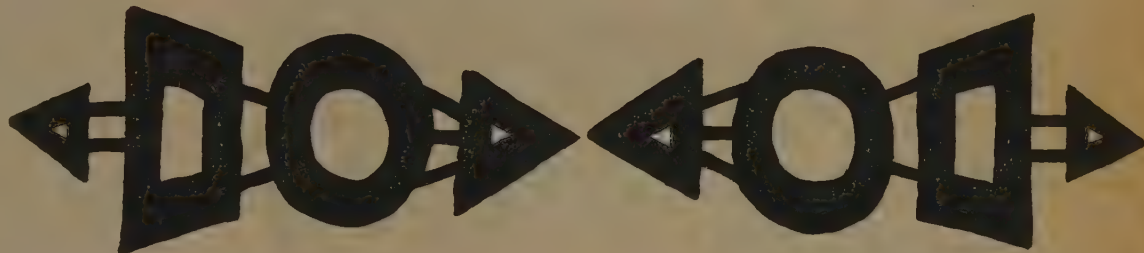
Catalog
free

from:
Vermont Wooden Toy Company
Old High School Building
Waitsfield, Vermont 05673

This Magazine is about Schools

and it's better at it than anyone. Funky and alive and intelligent and youthful—and probably thrifty, brave and reverent. Frontier cream.

—SB



This Magazine is about Schools

\$3.50 /year (4 issues)

from:
This Magazine is about Schools
56 Esplanade Street East, Suite 301
Toronto 215, Ontario
CANADA



F *I was reading about the witches in Salem this week. Did they get after those women because they thought about women's liberation like you do?*

T *You know, I get really confused. If we are taught everything about how to be a girl, isn't anything natural? I mean, why would we learn all that if it weren't natural?*

P *It doesn't make sense to me why fathers don't help make beds. My father had to make his bed in the army and he could do it better than my mother, but he won't!*

A *And why don't little brothers help their mothers the way girls always have to?*



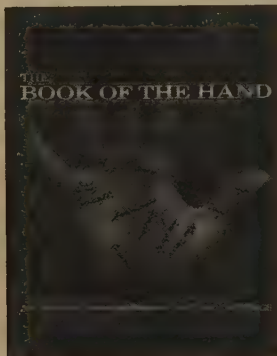
**LE QUEBEC DOIT TROUVER
ET IMPOSER SON IDENTITE
AU PLUS TOT OTHERWISE IL
COURT LE RISQUE TO LOSE SA
LANGUE AND TO DISAPPEAR
AS AN AUTHENTIC CULTURE**



*** The Book of the Hand**

This book is really a reference book for hand case-studies. It makes an authoritative but certainly honest attempt to understand the meaning of individual personality and destiny by understanding its reflections on the form and surface of the hand. The best thing about it are all the prints from old books and documents and photographs and palm prints which are really helpful for anyone interested in getting at all this on another level than solely scientific. He relies essentially on intuitive judgements and sees the hand as a miniature zodiac. The 1st section classifies the different hand forms into 8 types which correspond to a certain extent with astrological elemental traits: (Sensitive Water Hand, Intellectual Air Hand, Practical Earth Hand, etc.) The section on chiromancy classifies position and types of fingers, and the meaning of various lines on the hand (what traumas are recorded on your palms). The 3rd section is sort of an encyclopedia of the 1st written history of western palmistry, from the 15th century till now. Seems like a good book to use as a branching-off point.

[Reviewed by Barbara DeZonia]



The Book of the Hand
Fred Gettings (Hamlyn)
1965, 68; 212 pp.

\$4.95 postpaid

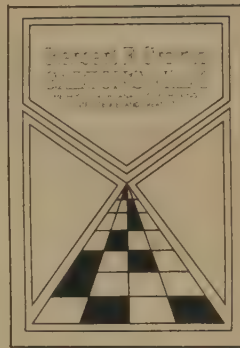
from:
The Outlet Book Company
419 Park Avenue South
New York, New York 10016



*** Galton's Walk**

The first thing to do after picking up this book is to erase from your mind that Galton was a raving eugenicist. . . that is, assuming that you've ever heard of Galton. If not, well try erasing from your mind that any book which tries to clarify the theoretic basis of the study of thought must be slightly on the psychologically uncopable side. Courage. As Crovitz himself says: "While the intention to speak to the basis of the study of thought is obviously a very ambitious one, the work is limited to some very simple tactics. The nontrivial study of thought seems impossible to all very wise people, fruitless to all wise people, very difficult to all very intelligent people, and metaphysically hopeless to everyone else." Ha. O.K. If you thought that trick was nice, well just watch this:

[Reviewed by Barbara DeZonia]



Galton's Walk
Herbert Crovitz
1970; 159 pp.

\$2.95 postpaid

from:
Harper & Row Publishers, Inc.
49 East 33rd Street
New York, New York 10016

or WHOLE EARTH CATALOG

The Hanging-Ropes Problem

In a large room, 2 ropes hang from the ceiling at a considerable distance from one another. One has a small ring on its free end, the other a small hook. A subject has the task of fastening the 2 ropes together, but this is not possible directly. For the problem is just this: to begin with, how is he to get both ropes in his hands at once? The ropes hang inconveniently far apart.

The Rope-Hand Set of Possibilities:

- Take a rope about a rope.
- Take a rope across a rope.
- Take a rope after a rope.
- Take a rope against a rope.
- Take a rope among a rope.
- Take a rope and a rope.
- Take a rope as a rope.
- Take a rope at a rope.
- Take a rope because a rope.
- Take a rope before a rope.
- Take a rope between a rope.
- Take a rope but a rope.
- Take a rope by a rope.
- Take a rope down a rope.
- Take a rope for a rope.
- Take a rope from a rope.
- Take a rope if a rope.
- Take a rope in a rope.
- Take a rope near a rope.
- Take a rope not a rope.
- Take a rope now a rope.
- Take a rope off a rope.
- Take a rope on a rope.
- Take a rope opposite a rope.
- Take a rope or a rope.
- Take a rope out of a rope.
- Take a rope over a rope.
- Take a rope around a rope.
- Take a rope still a rope.
- Take a rope so a rope.
- Take a rope then a rope.
- Take a rope through a rope.
- Take a rope though a rope.
- Take a rope till a rope.
- Take a rope to a rope.
- Take a rope under a rope.
- Take a rope when a rope.
- Take a rope where a rope.
- Take a rope while a rope.
- Take a rope with a rope.

The Rope-Hand Set of Possibilities

- Take a rope about a hand.
- Take a rope across a hand.
- Take a rope after a hand.
- Take a rope against a hand.
- etc.

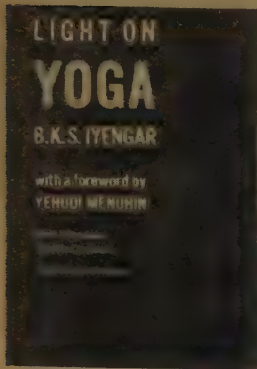
The solution mentioned to this problem is to swing one rope so it can be caught while holding the other one.

How about a walk?

Light on Yoga

If you are into it already, and want probably the most complete Hatha Yoga book, get this book. It has over 600 pictures, 200 asanas (postures) and a warm guru-like introduction to get you straight.

[Reviewed by Merce]



Light on Yoga
B.K.S. Iyengar
1955, 70; 342 pp.
\$9.95 postpaid

from:
Schocken Books, Inc.
67 Park Avenue
New York, New York 10016

or **WHOLE EARTH CATALOG**



Yoga is the method by which the restless mind is calmed and the energy directed into constructive channels. As a mighty river which when properly harnessed by dams and canals, creates a vast reservoir of water, prevents famine and provides abundant power for industry; so also the mind, when controlled provides a reservoir of peace and generates abundant energy for human uplift.

To make life healthy, happy and peaceful, it is essential to study regularly divine literature in a pure place. This study of the sacred books of the world will enable the sadhaka to concentrate upon and to solve the difficult problems of life when they arise. It will put an end to ignorance and bring knowledge. Ignorance has no beginning, but it has an end. There is a beginning but no end to knowledge.

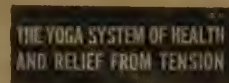
Once the sadhaka has experienced the fulness of creation or of the Creator, his thirst (tr̥ṣṇā) for objects of sense vanishes and he looks at them ever after with dispassion (vairāgya). He experiences no disquiet in heat or cold, in pain or pleasure, in honour or dishonour and in virtue or vice. He treats the two imposters—triumph and disaster—with equanimity. He has emancipated himself from these pairs of opposites. He has passed beyond the pull of the gunas and has become a gunatita (one who has transcended the gunas). He is then free from birth and death, from pain and sorrow and becomes immortal. He has no self identity as he lives experiencing the fulness of the Universal Soul. Such a man, scorning nothing, leads all things to the path of perfection.

27. When one has mastered an asana, it comes with effortless ease and causes no discomfort. The bodily movements become graceful. While performing asanas, the student's body assumes numerous forms of life found in creation—from the lowliest insect to the most perfect sage—and he learns that in all these there breathes the same Universal Spirit—the Spirit of God. He looks within himself while practising and feels the presence of God in different asanas which he does with a sense of surrender unto the feet of the Lord.

The Yoga System of Health and Relief from Tension

If you do yoga every day, you'll feel better. An uncluttered hour and Yogi Vithaldas' funky book will get you off . . . it has large print, adequate pictures, and makes you want to get out on the floor with it. A good book to begin with.

[Reviewed by Merce]



The Yoga System of Health and Relief from Tension
Yogi Vithaldas
1957; 120 pp.

\$1.00 postpaid

from:
Outlet Book Company
419 Park Avenue South
New York, New York 10016



When concentrating on an object it is best to begin slowly and concentrate for thirty seconds intensely rather than three minutes in a half-controlled, disconnected fashion. Choose any object for the mind to fasten on, and make it a pleasant one—say a half-opened rose. Place it in front of you in a little vase on a level with your eyes, and think of nothing but its beauty, the soft imperceptible grading of the colours, the stalk, the thorns, and the leaf. Keep your mind on that rose until you could tell anyone every feature of the blossom, and eventually, even with your eyes closed, that rose will be so firmly imprinted on your mind that it will be as vivid for you as if you were still looking at it.

Regard the exercise as a kind of game, and have a shot at it at odd times of the day when you are waiting for a bus or for a meal. Do not waste that time by idle dreaming, but consciously direct your mind to some object, and, shortly, an admirable technique of mind-control will be established.

Place an acorn before you and gaze steadily at it, fixing it firmly in your mind. Know with certainty its attributes, as with the rose—its shape, colour, and any markings you can discern. Then imagine the acorn in the ground and a root shooting from its burst seed, and the first green leaf, and carry on the process to the complete tree. Leave nothing out, hurry nothing, let nothing interfere with you until in your mind the acorn has become a great tree.

Meditation has a positive and negative pole, or, in other words, two extremes in its practice which must be avoided. A person who erring on the positive side, avoids the great middle path, develops an assertive inner nature, and takes pride in a false superiority of power.

The student who sees no difference in receptivity and surrender of the will meditates in a negative manner, laying himself open to every passing force, desirable or not, instead of practising disciplined reception.



Big Rock Candy Mountain

its incest to review a brother.
here is the song:

—jd

The Big Rock Candy Mountain

One evening as the sun went down and the jungle fires were burning down

Down the track came a hobo hiking. He said "Boys I'm not turning;

I'm heading for a land that's a far away beside that crystal fountain.

I'll see you all this coming fall in the Big Rock Candy Mountains.

In the Big Rock Candy Mountains, it's a land that's fair and bright;

The hand-outs grow on bushes and you sleep out ev'ry night;

The boxcars are all empty and the sun shines ev'ry day.

I'm bound to go where there ain't no snow where the sleet don't fall and the wind don't blow,

In the Big Rock Candy Mountain.

(Chorus)
Oh, the buzzing of the bees in the cigarette trees,

By the soda water fountain, by the lemonade springs where the bluebird sings,

In the Big Rock Candy Mountain.

In the Big Rock Candy Mountains you never change your socks,

Little streams of alkyhol comes trickling down the rocks.

Oh the shacks all have to tip their hats and the railroad bulls are blind

There's a lake of stew, and gingerale too

And you can paddle all around it in a big Canoe

In the Big Rock Candy Mountain. (Chorus)

In the Big Rock Candy Mountains the cops have wooden legs,

The bulldogs all have rubber teeth and the hens lay soft-boiled eggs.

The Boxcars are all empty and the sun shines every day.

I'm bound to go where there ain't no snow

Where the sleet don't fall and the wind don't blow

In the Big Rock Candy Mountain. (Chorus)



MEATBALL

The BIG ROCK CANDY MOUNTAIN will promote products we think aid in personal education, but the Catalog is under no obligation to the producers of those products. Publishers, manufacturers, and even the little guy can't buy space in the Catalog. If the item is good, we'll find it or someone will tell us about it. We do, however, gladly accept review and sample items.

The staff and readers of the BIG ROCK CANDY MOUNTAIN determine its content. We have fantasies of what the Catalog looks like and how it will grow, but feedback is necessary to feed those fantasies, and at the same time keep our feet on the ground. Some of us on the staff have been teachers and some of us have not. A couple of us have taught in free schools and some in public schools. None of us at the present time are teaching and we have no kids on the staff. BIG ROCK is dependent on readers of the Catalog and users of the materials for reviews and suggestions on items listed and for new input on items to list.

We are a vehicle for communication among people concerned with education, both personal and public. Materials, books and ideas have no inherent power by themselves. People, using, experiencing and learning with these aids, give them meaning. Techniques, work-in-progress, classroom and personal applications and evaluations which you or we want to communicate to others appear in the four smaller informal Catalogs.

Big Rock Candy Mountain
two big issues and three or four
small issues per year

\$8.00 /yr
big issues \$4.00
small issues \$1.00

from:
Big Rock Candy Mountain
Portola Institute, Inc.
1115 Merrill Street
Menlo Park, California 94025

In the Big Rock Candy Mountain the jails are made of tin,
You can slip right out again as soon as they put you in.
There ain't no short-handled shovels, no axes, saws or picks.
I'm bound to stay where you sleep all day
Where they hung the jerk that invented work
In the Big Rock Candy Mountain. (Chorus)



In the Kingdom of Mescal

a fairy tale for adults, with pictures,
tuck somebody in,
and read it out loud.

-jd

In the Kingdom of Mescal
Georg Schafer and Nan Cuz
1968, 70, 30 pp.

\$4.95 postpaid

from:
Shambala Publications
2010 Seventh Avenue
Berkeley, California 94710

or **WHOLE EARTH CATALOG**



They were in a strange world of pools and craters. Here and there they saw tender green shoots. Clouds of steam rose towards the sky from gaping holes and it was raining, like on earth. Then they went on.

"If you still had the serpent Time in you," said the Lord, as they stood on another mountain top, "you would have to die and be born again as many times as there are drops of water in all the seas in the world. It would take that long before you could stand on this star with me."

Now they were going through burning gases. "I am afraid," cried Blackhair. The Lord of Mescal took him in his arms and covered him with his hands. There was a hissing sound and then the air was filled with noises high and low which harmonised into a single melody. He saw a light through his slitted eyelids, although the Lord of Mescal was protecting his face with his hands; and the light shone so bright that the whole of the sky looked as if it was on fire. All the colours in the sky had merged together and the nearer they came to the light the more Blackhair shuddered with fear. The music went higher and came to an end with a peal of bells, and the figure of the dancer appeared in the sky like a thin veil. "The Mother of Life is above everything," said the lord. As she had in the temple, she caressed the void tenderly with her hands and there was a growling reply from the darkness like all the thunder in the world. "That is the stars speaking," whispered Mescal. "No," cried Blackhair, "my head is bursting, let us reach our destination before my fears overcome me." "Destination?" said the lord, laughing. "We have no destination. Here there is no beginning and no end. But in your mouth you still have a bit of the feathered serpent's tail, the Serpent of Time."

What shall I do with it? asked Blackhair. "Spit it out." "But that is my tongue," said Blackhair cautiously. "Quite right," said the lord. "It says words which here are meaningless and make you afraid."

He carefully opened his hand and Blackhair felt as though he was sitting on a small island in the middle of a rough sea.



Used Correspondence Courses

now this is a real recycle notion,
jobbers in used instructional materials.
when you've finished with poultry management,
and want to learn insect science, just
get in touch with one of these fellows
and swap with him. good bunch of technical
books too.

-jd

[Suggested by Jim Toms]

Foundry Practices, I.C.S.	4.40
Foundry Work and Tool Making, American School	7.50
Foot Culture, Stephenson Laboratory	15.00
Arch Support Making and Foot Culture Course	9.00
The Human Foot	2.95
Shoe Fitting and Orthopedics, Modern School	3.00
Foot Culture, Lincoln Institute	15.00
Practipedics, American School of Practipedics	3.00
Poultry Farming, National Poultry Institute	10.00
Poultry Book	1.00
Poultry Management	1.50
Railroad Rates Course, I.C.S.	5.75
Railroad Signaling, I.C.S.	9.00
Brakeman's Instruction, Railway Educational Association	4.00
Fireman's Instruction, Railway Educational Association	4.00
Airbrake Course, I.C.S.	15.00
Steam Locomotive, I.C.S.	9.00
Locomotive Engineering, I.C.S.	15.00
Railway Station Work, Railway Service Bureau	3.00
Sleeping Car and Train Porter	2.90
Railroad Correspondence File	2.25
Elementary Gunsmithing, Frazer	4.84
Modern Gunsmithing, Baker	6.85
Advanced Gunsmithing, Vickery	7.40
Teach Yourself Magic, Tuffs	2.85
How to Be a Handcuff King and Mystery Man	.75
Magic and Party Stunts	1.00
Spirit Mind Reading	1.00
Mind Reading and Mental Influence (2 books)	2.90
131 Magic Tricks for Amateurs, Dexter	2.40
Phoenix, One to Fifty, Walter B. Gibson	9.00
Ventriloquism Made Easy	.75
Ventriloquism Course	3.60
Ventriloquism Course with Dummy, Fred Maher	27.00

Catalog

free

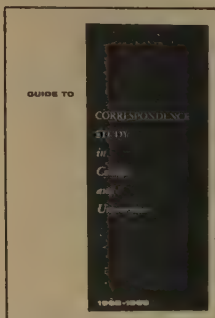
from:
Lee Mountain
Used Correspondence Courses
Pisgah, Alabama 35765

Guide to Correspondence Study

handy guide to courses
given out through the
mail by colleges in this
country. for instance,
the university of nebraska
will give you arc welding,
automotive mechanics,
beginning woodwork,
drawing and drafting,
home mechanics,
photography,
plumbing,
and roof framing,
as well as the standard rot
like genetics and heredity.

-jd

[Suggested by Emmanuel Appel]



**Guide to Correspondence Study in
Colleges and Universities 1970**

free

from:
University of California Extension Service
2223 Fulton Street
Berkeley, California 94720

Home Owner's Handbook	Tower	1.70
American Household Encyclopedia	Mager	1.60
Instant Furniture Refinishing	Geo. Grotz	1.30
Your Dream Home - How to Build It for Less Than \$3500	Hubbard Cobb	3.50
Mechanix Illustrated 1 How Encyclopedia		1.65
Interior Wall Decoration old	Drake Co.	1.65
Handy Man's Home Manual	Fawcett	.50
Home Handyman 1	Popular Mechanics	1.00
Complete Book of Home Repairs and Improvements	Popular Mechanics	2.95
Unhandy Man's Guide to Home Repairs		4.35
Audel Mason's & Builder's Guides (4 vols.)		7.85
Practical Houses for Contemporary Living		3.75
The American House Today	Reingold Pub.	3.70
Builders' Blueprints; How to Read Them		1.25
Complete Book of Hot Rodding	Petersen	4.50
Sports Car Bodywork	B. Locke	5.75
Diesel Engine Course (52 Lessons)		
Utilities Engineering Inst.		29.60
Diesel Tractor, Heavy Equipment Course Interstate Training Service		37.55
Operation, Care, Repair Farm Machinery		1.55
Motor's Auto Repair Manual (1962)		7.50
Fordomatic - Mercomatic Transmission		1.85
Diesel Engines	McGraw-Hill	1.30
Illustrated Course Horse Training	Beery	7.75
How to Ride and Train the Western Horse		6.50
Saddle Horse Instructions	Prof. Beery	4.50
Diseases of the Horse	Dept. Agriculture	1.40
Complete Book of Horses & Horsemanship		1.90
Teaching the Young to Ride	M. Self	1.50
Saddlery: Equipment Horse & Stable		2.75
Sportsman Guide Horseback Riding	Wall	1.70
Colt and Horse Sense (2 Books)	Bob Carson	2.75
Out of West; New Horsemanship	L. Taylor	4.70
Complete Book of the Quarter Horse	Nye	5.60
Schooling of the Western Horse	J. Young	3.80
Hackamore Reinsman	Ed Connell	1.60
The Horseman's Encyclopedia	M. Self	4.20
The Horse; Judging, Breeding, Feeding, Management and Selling	D. Kays	6.50
Quarter Horse Breeder	M. Lindeman	4.50
How to Buy a Healthy Horse and Keep Him That Way	Farmer's Digest	5.90

Catalog

free

from:
Smith Instruction Exchange
124 Marlborough Road
Salem, Massachusetts 01970

Alaskan Co-operative Extension Service

Good information on cooking reindeer, walrus, moose,
caribou, sausage making, smoking (food), making a mix
(food), making jellies etc from wild rose hips, growing
vegetables & some fruits in cold climate, making a
compost heap in cold climate, tanning and skinning hides,
making parkas, mukluks, mittens, building A-frames,
log cabins. Mostly free, top price on anything is 50 cents.
And they will mail without postage charges. Pamphlet of all
their stuff available soon.

[Reviewed by Karen McPherson]

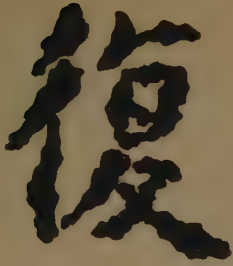
Write to:
Cooperative Extension Service
University of Alaska
Box 1109
Juneau, Alaska 99801

- What to Do With a Mushroom
- Canning Moose and Caribou in Tin Cans
- Canning Moose and Caribou in Glass Jars
- To Can Fish in Glass Jars
- To Can Fish in Tin Cans
- To Salt Fish
- The Fisherman Returns
- Wild Edible and Poisonous Plants (25 cents - colored 50 cents)
- The Hunter Returns After the Kill (25 cents)
- Wild Berry Recipes
- Proper Care of Seal Skins
- Proper Care of Beaver Pelts
- Proper Care of Walrus Hides

I Ching

this is the ching we threw on the twenty-ninth of october, 1970, in a garage in the mountains, off skyline, in woodside, california, somewhere around noon.

DEVELOPING SITUATION



Fu/Return (The Turning Point)



above K'UN THE RECEPTIVE, EARTH

below CHEN THE AROUSING, THUNDER

The idea of a turning point arises from the fact that after the dark lines have pushed all of the light lines upward and out of the hexagram, another light line enters the hexagram from below. The time of darkness is past. The winter solstice brings the victory of light. This hexagram is linked with the eleventh month, the month of the solstice (December-January).

THE JUDGMENT

RETURN. Success.
Going out and coming in without error.
Friends come without blame.
To and fro goes the way.
On the seventh day comes return.
It furthers one to have somewhere to go

After a time of decay comes the turning point. The powerful light that has been banished returns. There is movement, but it is not brought about by force. The upper trigram K'un is characterized by devotion; thus the movement is natural, arising spontaneously. For this reason the transformation of the old becomes easy. The old is discarded and the new is introduced. Both measures accord with the time; therefore no harm results. Societies of people sharing the same views are formed. But since these groups come together in full public knowledge and are in harmony with the time, all selfish separatist tendencies are excluded, and no mistake is made.

The idea of RETURN is based on the course of nature. The movement is cyclic, and the course completes itself. Therefore it is not necessary to hasten anything artificially. Everything comes of itself at the appointed time. This is the meaning of heaven and earth.

All movements are accomplished in six stages, and the seventh brings return. Thus the winter solstice, with which the decline of the year begins, comes in the seventh month after the summer solstice; so too sunrise comes in the seventh double hour after sunset. Therefore seven in the number of the young light, and it arises when six, the number of the great darkness, is increased by one. In this way the state of rest gives place to movement.

SQUARE SUN SQUARE MOON

This book is about feeling, feeling mountains, feeling breath, feeling sun, feeling touch, feeling toes: yoga words. A book to be read to children and by those who envy children. Consists of Paul Reps' impressionistic portrait of the places he visits in the far east: Tahiti, Japan, Samoa, China, Fiji, plus Norway and Sweden. Pretty stoned places in themselves. Reps observations are about the people, spiritual things, life and death ways, and teaching. Subtitles of essays such as: "a Chinese method of long life," "How to be happy though grown up."

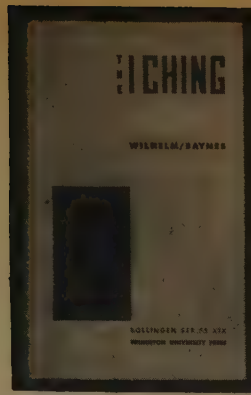
[Suggested by Michael Howden.
Reviewed by D. Smith]



Square Sun, Square Moon
Paul Reps
1967, 70; 100 pp.
\$2.50 postpaid

from:
Charles F. Tuttle Co.
28 South Main Street
Rutland, Vermont 05701

or WHOLE EARTH CATALOG



The I Ching
Translated by Richard Wilhelm, Cary F. Baynes
? B.C.; 740 pp.

\$6.00 postpaid

from:
Shambala Booksellers
2482 Telegraph Avenue
Berkeley, California 94704

or
\$7.50 postpaid

from:
Princeton University Press
Princeton, New Jersey 08540

or WHOLE EARTH CATALOG

THE IMAGE

Thunder within the earth:
The image of THE TURNING POINT.
Thus the kings of antiquity closed the passes
At the time of solstice.
Merchants and strangers did not go about,
And the ruler
Did not travel through the provinces.

The winter solstice has always been celebrated in China as the resting time of the year—a custom that survives in the time of rest observed at the new year. In winter the life energy, symbolized by thunder, the Arousing, is still underground. Movement is just at its beginning; therefore it must be strengthened by rest, so that it will not be dissipated by being used prematurely. This principle, i.e., of allowing energy that is renewing itself to be reinforced by rest, applies to all similar situations. The return of health after illness, the return of understanding after an estrangement; everything must be treated tenderly and with care at the beginning, so that the return may lead to a flowering.

THE LINES

Six in the second place means:
Quiet return. Good fortune.

Return always calls for a decision and is an act of self-mastery. It is made easier if a man is in good company. If he can bring himself to put aside pride and follow the example of good men, good fortune results.

Six in the third place means:
Repeated return. Danger. No blame.

There are people of a certain inner instability who feel a constant urge to reverse themselves. There is danger in continually deserting the good because of uncontrolled desires, then turning back to it again because of a better resolution. However, since this does not lead to habituation in evil, a general inclination to overcome the defect is not wholly excluded.

FINAL SITUATION



T'ai/Peace



above K'UN THE RECEPTIVE, EARTH

below CH'EN THE CREATIVE, HEAVEN

The Receptive, which moves downward, stands above; the Creative, which moves upward, is below. Hence their influences meet and are in harmony, so that all living things bloom and prosper. This hexagram belongs to the first month (February-March), at which time the forces of nature prepare the new spring.

THE JUDGMENT
PEACE. The small departs,
The great approaches.
Good fortune. Success.

This hexagram denotes a time in nature when heaven seems to be on earth. Heaven has placed itself beneath the earth, and so their powers unite in deep harmony. Then peace and blessing descend upon all living things.

In the world of man it is a time of social harmony; those in high places show favor to the lowly, and the lowly and inferior in their turn are well disposed toward the highly placed. There is an end to all feuds.

Inside, at the center, in the key position, is the light principle; the dark principle is outside. Thus the light has a powerful influence, which the dark is submissive. In this way each receives its due. When the good elements of society occupy a central position and are in control, the evil elements come under their influence and change for the better. When the spirit of heaven rules in man, his animal nature also comes under its influence and takes its appropriate place.

The individual lines enter the hexagram from below and leave it again at the top. Here the small, weak, and evil elements are about to take their departure, while the great, strong, and good elements are moving up. This brings good fortune and success.

THE IMAGE

Heaven and earth unite: the image of PEACE.
Thus the ruler
Divides and completes the course of heaven and earth;
He furthers and regulates the gifts of heaven and earth,
And so aids the people.

Heaven and earth are in contact and combine their influences, producing a time of universal flowering and prosperity. This stream of energy must be regulated by the ruler of men. It is done by a process of division. Thus men divide the uniform flow of time into the seasons, according to the succession of natural phenomena, and mark off infinite space by the points of the compass. In this way nature in its overwhelming profusion of phenomena is bounded and controlled. On the other hand, nature must be furthered in her productivity. This is done by adjusting the products to the right time and the right place, which increases the natural yield. This controlling and furthering activity of man in his relation to nature is the work on nature that rewards him.

"Draw this line," they have been told previously, "only as you feel it to be the most worthwhile act of your life."

"Draw it with your breath."

"The line flows from brush with outbreath, although variations of it change as breath changes."

"Let the line come from and go on into infinity off the tip of the brush."

"It is less drawn than experienced."

"Not only brush, hand, arm, but heart and mind draw it." In Japanese, one word, *kokoro*, stands for both heart and mind.

"Your line, not aiming at perfection, never ends."

"Let center draw through you."

The Samoan taxi driver in Honolulu sang softly along the ocean.

"Why are you folks so sweet-natured?" I asked him.

"We eat fish instead of meat. We gather poi wild. We have some fresh vegetables. We don't have to work for anyone. We never worry that we should be doing this or that. We are all like brothers and sisters. We can live on the milk and meat of those coconuts. We fish and swim and enjoy life. Why shouldn't we be happy?"

It is more. It is Shinto magic. Today even the performers do not comprehend it. They just do it—in resplendent costumes, with stately movements, with dignity. They show us how to respect movement itself.

From the first slow whine of a wind instrument with its reeds pointed heavenward, then the flute sound, the boom of a large drum decorated with a mandala design, a metal gong, then some large seed-shaped instruments, a koto joins in—twangs, whiens, clinks, beats—slow sustained rhythm like a procession marching in the skies.

I have seen this music and dance at Ise, wandered around and heard it from outside in back where the sacred white horse bows his head to the ground, hypnotized by the sounds. These inevitable slow sounds and movements were meant to lift us out of our nonsensical goings-on into a living peace.



Rain

rape

*** The Dialectic of Sex**

It amazes me that many people who are really into ecological change still view women's liberation as a peripheral issue. Alternative living means more than moving to the country; it means change at the most fundamental level, starting with the family. Shulamith's book is about the liberation of women, children, and all of us. Let's bring the revolution home.



[Reviewed by Rosella Hips]

The Dialectic of Sex: The Case for Feminist Revolution

Shulamith Firestone
1970, 274 pp.

\$6.95 postpaid

from:
William Morrow & Co. Inc.
105 Madison Ave.
New York, New York 10016

or WHOLE EARTH CATALOG



Thus never has there been a true instance of full membership of women and children in the larger society. The modern social experiment, like the matriarchal stage of human history, signifies only a relative loosening within the larger movement toward consolidation of male supremacy through history. It never altered the fundamental condition of sex oppression. Any benefits that accrued to women and children were incidental to other social objectives—which themselves were obstructed by the vast, unrecognized substratum of sex oppression. Because their ideology was not founded on the minimal feminist premises above, these experiments never achieved even the more limited democratic goals their (male) theorists and leaders had predicted. However, their success within narrow spheres shows that the biological family unit is amenable to change. But we would have to control totally its institutions to eliminate the oppression altogether.

In the transitional phase, adult genital sex and the exclusiveness of couples within the household might have to be maintained in order for the unit to be able to function smoothly, with a minimum of internal tension caused by sexual frictions. It is unrealistic to impose theories of what *ought* to be on a psyche already fundamentally organized around specific emotional needs. And this is why individual attempts to eliminate sexual possessiveness are now always inauthentic. We would do much better to concentrate on altering the social structures that have produced this psychical organization, allowing for the eventual—if not in our lifetime—fundamental restructuring (or should I say destructuring?) of our psychosexuality.

But to grant that the sexual imbalance of power is biologically based is not to lose our case. We are no longer just animals. And the Kingdom of Nature does not reign absolute. As Simone de Beauvoir herself says:

The theory of historical materialism has brought to light some important truths. Humanity is not an animal species, it is a historical reality. Human society is an antiphysis—in a sense it is against nature; it does not passively submit to the presence of nature but rather takes over the control of nature on its own behalf. This arrogation is not an inward, subjective operation; it is accomplished objectively in practical action.

Thus, the "natural" is not necessarily a "human" value. Humanity has begun to outgrow nature: we can no longer justify the maintenance of a discriminatory sex class system on grounds of its origins in Nature. Indeed, for pragmatic reasons alone it is beginning to look as if we must get rid of it. (See chapter 10)

Wilhelm Reich in the *Sexual Revolution* summarized the specific objective reasons for the failure of the Russian communes in the best analysis to date:

- (1) Confusion of the leadership and evasion of the problem.
- (2) The laborious task of reconstruction in general given the cultural backwardness of Old Russia, the war, and famine.
- (3) Lack of theory. The Russian Revolution was the first of its kind. No attempt had been made to deal with emotional-sexual-familial problems in the formulation of basic revolutionary theory. (Or, in our terms, there had been a lack of "consciousness raising" about female/child oppression and a lack of radical feminism prior to the revolution itself.)
- (4) The sex-negative psychological structure of the individual, created and reinforced throughout history by the family, hindered the individual's liberation from this very structure. As Reich puts it:
It must be remembered that human beings have a tremendous fear of just that kind of life for which they long so much but which is at variance with their own structure.
- (5) The explosive concrete complexities of sexuality.

What is keeping marriage so alive? I have pointed out some of the cultural bulwarks of marriage in the twentieth century. We have seen how the romantic tradition of non-marital love, the heterairism that was the necessary adjunct to monogamic marriage, has been purposely confused with that most pragmatic of institutions, making it more appealing—thus restraining people from experimenting with other social forms that could satisfy their emotional needs as well or better.

Under increasing pressure, with the pragmatic bases of the marriage institution blurred, sex roles relaxed to a degree that would have disgraced a Victorian. He had no crippling doubts about his role, nor about the function and value of marriage. To him it was simply an economic arrangement of some selfish benefit, one that would most easily satisfy his physical needs and reproduce his heirs. His wife, too, was clear about her duties and rewards: ownership of herself and of her full sexual, psychological, and housekeeping services for a lifetime, in return for longterm patronage and protection by a member of the ruling class, and—in her turn—limited control over a household and over her children until they reached a certain age. Today this contract based on divided roles has been so disguised by sentiment that it goes completely unrecognized by millions of newlyweds, and even most older married couples.

In fact the kibbutz is no radical experiment, but a limited communalism instituted to further specific agricultural aims. The kibbutz is nothing more than a community of farming pioneers temporarily forced to sacrifice traditional social structures to better adjust to a peculiar set of national conditions. If and when these conditions change, the kibbutz reverts to "normal." For example, women on the far left kibbutz on which I stayed were concerned with demanding private kitchens in addition to the communal one where meals were served six times a day. They were still cast in the role of Gracious Wife, but had been denied the proper equipment to play the part. Their interest in clothing, fashion, makeup, glamour, not easy to indulge, resembled, in deed indeed *was*, the longing of the farm girl for the vices of the big city—the more intense in fantasy because difficult to achieve in practice.

*** Raspberry Exercises**

free school knowhow with a forum format, how to start a school could be important collection point for new ideas, solid children's lib philosophy.

—jd

Raspberry Exercises—How to Start Your Own School & Make a Book

Salli Raspberry and Robert Greenway
1970; 125pp.

\$3.95 postpaid

from:
The Freestone Publishing Company
440 Bohemian Highway
Freestone (Sebastopol) California 95472

or WHOLE EARTH CATALOG

If you're going to pay rent on something, and pay at least several subsistence-level salaries, you'll need a few hundred dollars at least with which to get started, and some parents who will continue to pay tuition beyond the first month.

But there is a fantastic amount of bullshit surrounding the issue of money and free schools. Money is usually blamed on most failures. Rather, it is the most common scapegoat. In this culture, in or out of it, on welfare or not, there is enough money to support "alternative learning environments" without resorting to huge energy rip-offs for fund raising and soul-endangering trips of sucking around foundations pledged to maintain the dominant culture (termed "constructive change from within existing institutions").

The simplest answer of course is tuition. According to the New Schools Exchange the national average (of free schools charging tuition) is about \$75 per month per child (with varying arrangements for reducing tuition for 2nd and 3rd children in the same family). Such schools find they can make it without big fund raising trips *if* (and this is a painfully big *if*) families meet their tuition commitments.

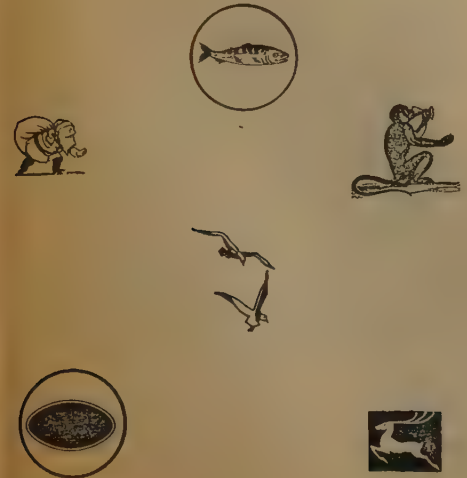
For some reason, many families in free schools across the country *don't* pay their tuition. We've heard of one solution: collect the year's tuition in advance. For those without funds, require that it be borrowed from a local bank (it helps if an executive of the bank is on your board), using the other money from those who *do* have it as collateral for those who don't. Then you've got a solid base from which to run the school or even for borrowing. No pressure, no bad trips about begging parents or blocking kids at the door when tuition is finally three months overdue.

Schools that seem to manage their money with little energy loss usually set a conservative budget, based on say, 60 per cent collection of the total on-the-books tuition. The remaining 40 per cent covers those who don't or can't pay, for *formal* scholarships as opposed to rip-offs, to secure loans at the bank, etc.

We've wondered why more free schools haven't latched onto the more wealthy in the alternative cultures from which they are springing. For example, every rock band on the rise could sponsor a free school.



**TO THE MILLIONS OF CHILDREN STILL
IN PRISON IN THE UNITED STATES
and
to the handful of adults trying
to spring them**



A Yaqui Way of Knowledge

This book records the experiences of an anthropology student who becomes the apprentice of Don Juan, a Yaqui indian "man of knowledge" who is also a "diablero", a black sorcerer. It is a profoundly disturbing book since it opens up areas and ideas we usually dismiss or deny. Don Juan, over a period of five years, teaches the author a little of his knowledge. He teaches through giving his apprentice various psycho-active plants: peyote, datura, and a mixture of psilocybin mushrooms, genista canariensis, and other plants. Each of these plants has its own way of teaching, its own demands and its own kind of power. For those of us who thought we understood psychedelic effects this book reveals the rudimentary state of our knowledge. For those of us who have dismissed magic as a combination of hypnotism and stage effects we are confronted with powerful and effective magic which seems irrefutable.

Don Juan himself appears as a powerful, indecipherable, wise man whose knowledge is both extensive and alien to our own. He offers to each of us the possibility of dealing with other realities, but he makes it clear that all these ways are dangerous, difficult and once entered, cannot be put aside as simply another experience.

The goal of his teaching is partially expressed as follows:

The particular thing to learn is how to get to the crack between the worlds and how to enter the other world. There is a crack between the two worlds, the world of the diablos and the world of living men. There is a place where these two worlds overlap. The crack is there. It opens and closes like a door in the wind. To get there a man must exercise his will. He must, I should say, develop an indomitable desire for it, a single-minded dedication. But he must do it without the help of any power or any man...

Not a book to be read for pleasure, a book which will affect you more than you may wish to be affected.

(Reviewed by Jim Fadiman)

(Why not read it for pleasure? It's frontier Boswell and Johnson. —SB)

He looked at me for a long time and laughed. He said that learning through conversation was not only a waste, but stupidity, because learning was the most difficult task a man could undertake. He asked me to remember the time I had tried to find my spot, and how I wanted to find it without doing any work because I had expected him to hand out all the information. If he had done so, he said, I would never have learned. But, knowing how difficult it was to find my spot and, above all, knowing that it existed, would give me a unique sense of confidence. He said that while I remained rooted to my "good spot" nothing could cause me bodily harm, because I had the assurance that at that particular spot I was at my very best. I had the power to shove off anything that might be harmful to me. If, however, he had told me where it was, I would never have had the confidence needed to claim it as true knowledge. Thus, knowledge was indeed power.

**The Teachings of Don Juan:
A Yaqui Way of Knowledge**
Carlos Castaneda
1968; 276 pp.

\$.95 postpaid

from:
Ballantine Books
101 Fifth Avenue
New York, New York 10003

or **WHOLE EARTH CATALOG**



"Don't get me wrong, Don Juan," I protested. "I want to have an ally, but I also want to know everything I can. You yourself have said that knowledge is power."
"No!" he said emphatically. "Power rests on the kind of knowledge one holds. What is the sense of knowing things that are useless?"

Once a man has vanquished fear, he is free from it for the rest of his life because instead of fear, he has acquired clarity of mind which erases fear. By then a man knows his desires; he knows how to satisfy those desires. He can anticipate the new steps of learning, and a sharp clarity surrounds everything. The man feels that nothing is concealed.

And thus he has encountered his second enemy: Clarity! That clarity of mind, which is so hard to obtain, dispels fear, but also blinds.

"I say it is useless to waste your life on one path, especially if that path has no heart."
"But how do you know when a path has no heart, Don Juan?"
"Before you embark on it you ask the question Does this path have a heart? If the answer is no, you will know it, and then you must choose another path."
"But how will I know for sure whether a Path has a heart or not?"
"Anybody would know that. The trouble is nobody asks the question; and when a man finally realizes that he has taken a path without a heart the path is ready to kill him. At that point very few men can stop to deliberate, and leave the path."
"How should I proceed to ask the question properly, Don Juan?"
"Just ask it."
"I mean, is there a proper method, so I would not lie to myself and believe the answer is yes when it really is no?"
"Why would you lie?"
"Perhaps because at the moment the path is pleasant and enjoyable."
"That is nonsense. A path without a heart is never enjoyable. You have to work hard even to take it. On the other hand, a path with a heart is easy; it does not make you work at liking it."

You have the vanity to believe you live in two worlds, but that is only your vanity. There is but one single world for us. We are men, and must follow the world of men contentedly.

"But is this business of the dog and me pissing on each other true?"
"It was not a dog! How many times do I have to tell you that? This is the only way to understand it. It's the only way! It was 'he' who played with you."

"Let's put it another way, Don Juan. What I meant to say is that if I had tied myself to a rock with a heavy chain I would have flown just the same, because my body had nothing to do with my flying." Don looked at me incredulously. "If you tie yourself to a rock," he said, "I'm afraid you will have to fly holding the rock with its heavy chain."

How to Build a Working Digital Computer

Since computers are ever more centrally with us, it behooves us to allow them as few mysteries as possible. A kid who's built a computer out of paper clips has a healthy handle on his relationship with high technology.

The computer you can build from this book will operate with a program of 2B-bit instruction works and has a ten-instruction repertoire. It adds, subtracts, multiplies, divides, and costs very little.

—SB

**How to Build a Working
Digital Computer**
Alcosser, Phillips, and Wolk
1967, 70; 176 pp.

\$4.45 postpaid

from:
Hayden Book Co., Inc.
116 West 14th Street.
New York, New York 10011

or **WHOLE EARTH CATALOG**

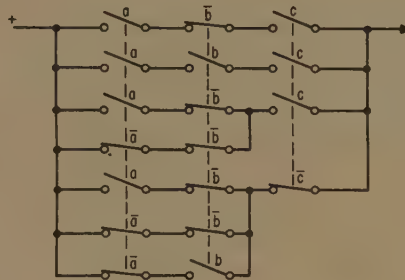
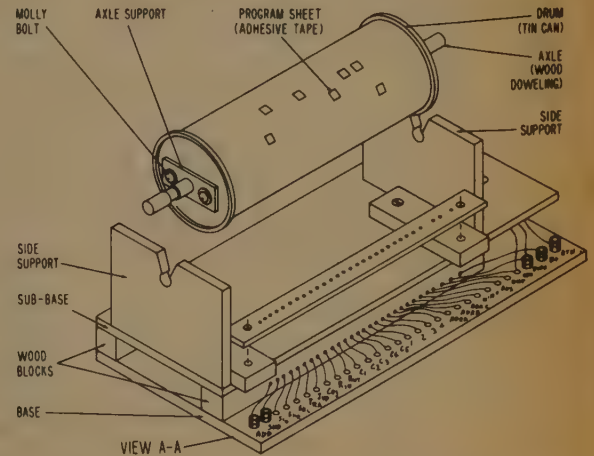


Fig. 3-13. The logic circuit of $a \cdot \bar{b} \cdot c + a \cdot b \cdot \bar{c} + c \cdot (a \cdot \bar{b} + \bar{a} \cdot b) + \bar{c}$.
($a \cdot \bar{b} + \bar{a} \cdot b + \bar{a} \cdot b$).



T'ai-Chi

I've only watched two people doing t'ai chi. one, an old man at sunrise, in front of a two-car garage, swooping and turning. the other, Cathy Dutton, sun on her eyelids, slowly working it out on the front lawn in menlo park. it is beautiful dance-with-the-cosmos personal movement, meditational motion, and maybe it can be learned from a book.

—jd

(Suggested by Jim Frierson)

How should a novice begin his training in T'ai-chi? He should relax completely. The aim is to throw every bone and muscle of the body wide open so that the *ch'i* may travel unobstructed. Once this is done, the chest must be further relaxed and the *ch'i* made to sink to the navel. After a time the *ch'i* will be felt accumulating for mass integration in the navel, from where it will begin to circulate throughout the body.

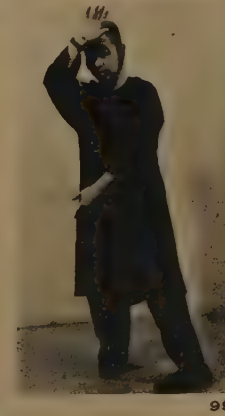
A tornado is but the massed movement of air and a tidal wave that of water. As a whiff, nothing is more pliable than air; as a drop, nothing more yielding than water. But as tornadoes and tidal waves, air and water carry everything before them. Mass integration makes the difference. Later, the student will be able to direct the *ch'i* instantaneously to any part of his body by means of his mind.



T'ai-Chi
Cheng and Smith
1967; 69; 112 pp.
\$4.95 postpaid

from:
Charles E. Tuttle
28 South Main
Rutland, Vermont 05701

or **WHOLE EARTH CATALOG**



The Starrett Book for Student Machinists

This is an excellent reference and introduction to machining. It can be used in place of the Machinery's Handbook by many people, although it does not pretend to replace it. Chapters like: Reading Working Drawings; Facts About Fits; Drills and How to Use them; Jigs and Fixtures; and Lathe Work. The book is well bound and small, making it an easy volume to keep.

[Suggested and reviewed by Fred Richardson]

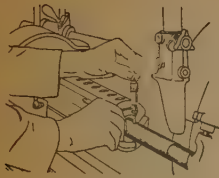


FIG. 86

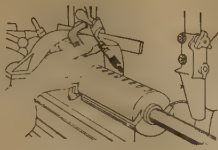
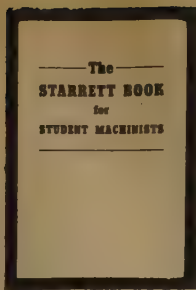


FIG. 87

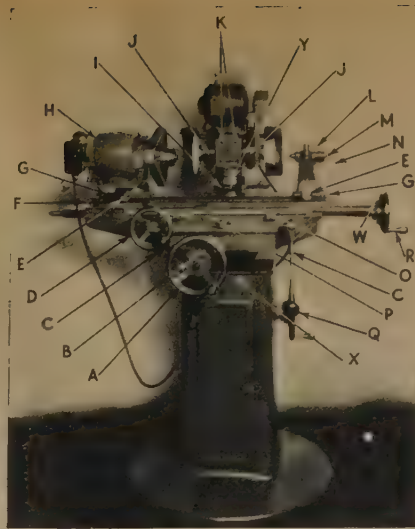


The Starrett Book for Student Machinists
The L.S. Starrett Company
1941 . . . 1952; 184 pp.

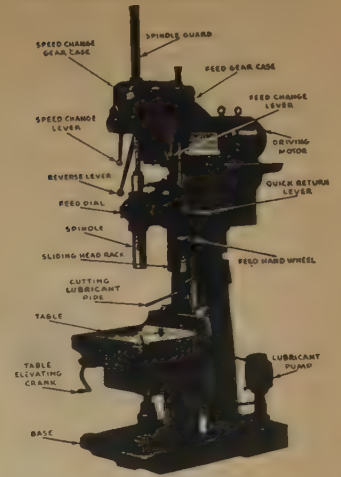
\$2.25 postpaid

from:
The L.S. Starrett Company
Athol, Massachusetts 01131

or **WHOLE EARTH CATALOG**



Box Column Type Upright Drill Press



American Boys Handy Book

Dan Beard's American Boys Handy Book was first published in 1882. Out of print for a long time, Tuttle has finally reprinted it. This is barefoot-boy-with-cheek-of-tan stuff, detailed lore on how a boy may make his own world. Extraordinary book, highly recommended for funky schools or communities, especially if woods are handy.

[Suggested by Arthur Brand]

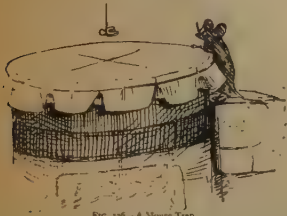
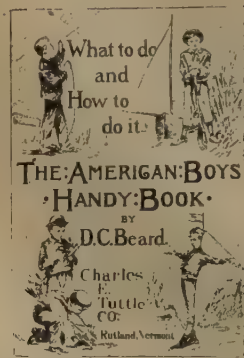


FIG. 136—A Mouse Trap.



The American Boys Handy Book
D. C. Beard
1882; 391 pp.

\$3.95 postpaid

from:
Charles E. Tuttle Co., Inc.
Rutland, Vermont 05701

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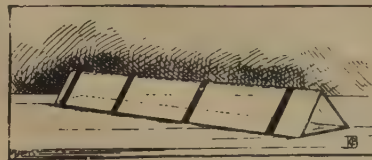


FIG. 213—Kaleidoscope.

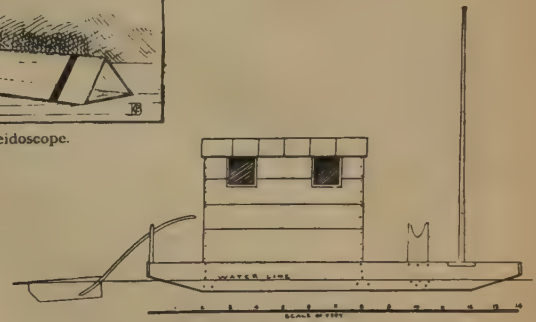


FIG. 81.—Side View of Flat-Boat.

Set a seat in front of the rowlock with a hole in it for the "jack-staff" to pass through. The jack-staff should be made so that it can be taken out and put in at pleasure.

Centering

m. c. richards is an east/west potterpoet and philosopher. she makes ideas like tassajara porcupines make love, slowly, gently, carefully.

i read her that way, opening up to an idea, reading until i'm asleep, munching around the edges, letting come together whatever falls together, centering.

we are what is and what is—is what we are. the world is one. center us, center it. if it is centered, we are too. pull clay around the void, transform it, use it, turn it into a pot. m. c. richards may be just a touch too much of a poet.

[Reviewed by J. D. Smith
Suggested by Kelly Yeaton]



Centering

M. C. Richards
1962, 1964; 159 pp.

\$2.45 postpaid

from:
Wesleyan University Press
Middletown, Conn. 06457

or **WHOLE EARTH CATALOG**

Because I am a potter, I take my image, centering, from the potter's craft. A potter brings his clay into center on the potter's wheel, and then he gives it whatever shape he wishes. There are wide correspondences to this process. Such extensions of meaning I want to call attention to. For centering is my theme: how we may seek to bring universe into a personal wholeness, and into act the rich life which moves so mysteriously and decisively in our bodies, manifesting in speech and gesture, materializing as force in the world the unifying energy of our perceptions.

Our studies of Eastern philosophy teach us to let go, to drop it. To surrender our attachments, our mentation. To free ourselves from ignorance and suffering. Our studies of Western philosophy teach us to surrender our minds to perception. Pure thinking has its source at the center. Thus Idealism is our Western knowledge: to surrender reflections for the evolving forms toward which matter is continuously casting itself, a dynamic thinking which generates rather than mirrors. And Western empiricism, which brings us back always sharply to the edges of a particular moment. There is only the moment, and yet the moment is always giving way to the next, so that there is not even Now, there is Nothing. True, true. There is nothing, if that is the way to understanding how much there is.

Aikido and the Dynamic Sphere

Aikido is the most recent and most brilliantly conceived of the Japanese martial arts. A superb fighting technique, it is scarcely interested in fighting—it doesn't even have matches, just training. You train to put your mind and body in the same place for once—the one point at your center of gravity. You train to acquire and direct Ki—energy (not strength, but coherent energy: when it's flowing you don't have to move). You train to blend with your opponent and use his energy to unhinge his attack. I find this book by two Americans to be far more useful for learning aikido than the numerous texts by Japanese students of the original master Morihei Uyeshiba. The illustrations here are profoundly better than the usual photographs. They depict the mental image—which is the heart of aikido technique. An editor can use aikido, a general, an actor, a craftsman, a politician, a designer. What the body learns and practices becomes useful in any realm.

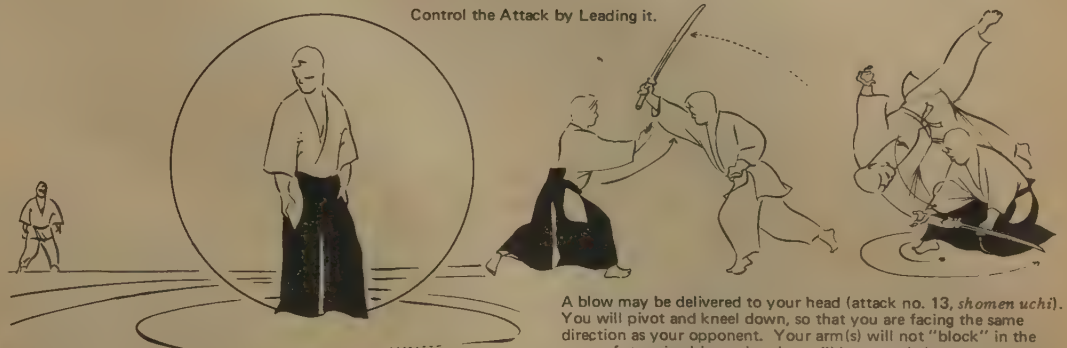
—SB

Aikido and the Dynamic Sphere
A. Westbrook and O. Ratti
1970; 375 pp.

\$8.50 postpaid

from:
Charles E. Tuttle Co.
Rutland, Vermont 05701

or **WHOLE EARTH CATALOG**



Your own Centre must become the center of your attacker's action as well. The Centre is not restricted in aikido, as we have indicated, to your personal dimension. If a man attacks you, he has lost his own point of independence and balance by the very irrationality of that act, and you must substitute your own Centre in an attempt to return the situation to normal. Thus he attacks, you evade; he plunges into a vacuum, you lead and guide him back around your own Centre and neutralize his attack.

A blow may be delivered to your head (attack no. 13, shomen uchi). You will pivot and kneel down, so that you are facing the same direction as your opponent. Your arm(s) will not "block" in the sense of stopping his motion, but will be extended so as to protect yourself. At the same time you will guide his motion (via his wrist or even sleeve) from the inside, lead him in full, circular extension forward and then down. This can be accomplished almost without touching him.

There is no pulling, no dragging; it is just a smooth, simple, circular lead, synchronized perfectly with your attacker's own movements. It is blended dynamically with them and, therefore, almost unnoticed until he is in flight. He falls, but yet does not know precisely how he came to fall.

The Zen Teachings of Huang Po

*pam and i were schoolteachers in montana
(hello carl)
and the things i learned were:
outflowing-free-let-them-do-what-they-want
free things,
carried your invention through a few days,
then,
just like jail,
you start to stagnate,
and you get caught,
in,
either,
well this is what i really meant,
or,
why don't you people think of something to do.
so,
rather than abandon free things,
either,
do yourself more completely,
or,
figure out a way,
to let everyone,
do themselves more completely.*

-jd

The Zen Teachings of Huang Po

Translated by John Blofeld
1958; 136 pp.

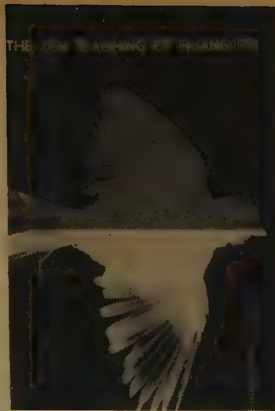
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214 Mercer Street
New York, New York 10012

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3. Mind is like the void in which there is no confusion or evil, as when the sun wheels through it shining upon the four corners of the world. For, when the sun rises and illuminates the whole earth, the void gains not in brilliance; and, when the sun sets, the void does not darken. The phenomena of light and dark alternate with each other, but the nature of the void remains unchanged.



So it is with the Mind of the Buddha and of sentient beings. If you look upon the Buddha as presenting a pure, bright or Enlightened appearance, or upon sentient beings as presenting a foul, dark or mortal-seeming appearance, these conceptions resulting from attachment to form will keep you from supreme knowledge, even after the passing of as many aeons as there are sands in the Ganges. There is only the One Mind and not a particle of anything else on which to lay hold, for this Mind is the Buddha. If you students of the Way do not awake to this Mind substance, you will overlay Mind with conceptual thought, you will seek the Buddha outside yourselves, and you will remain attached to forms, pious practices and so on, all of which are harmful and not at all the way to supreme knowledge.

When we talk of the knowledge 'I' may gain, the learning 'I' may achieve, 'my' intuitive understanding, 'my' deliverance from rebirth, and 'my' moral way of living, our successes make these concepts seem pleasant to us, but our failures make them appear deplorable. What is the use of all that? I advise you to remain uniformly quiescent and above all activity. Do not deceive yourselves with conceptual thinking, and do not look anywhere for the truth, for all that is needed is to refrain from allowing concepts to arise. It is obvious that mental concepts and external perceptions are equally misleading, and that the Way of the Buddhas is as dangerous to you as the way of demons. Thus, when Manjusri temporarily entered into dualism, he found himself dwarfed by two iron mountains which made egress impossible. But Manjusri had true understanding, while Samantabhadra possessed only ephemeral knowledge. Nevertheless, when true understanding and ephemeral knowledge are properly integrated, it will be found that they no longer exist. There is only the One Mind, which is neither Buddha nor sentient beings, for it contains no such dualism. As soon as you conceive of the Buddha, you are forced to conceive of sentient beings, or of concepts and no-concepts, of vital and trivial ones, which will surely imprison you between those two iron mountains.

Worlds in the Making

We see all manner of books on the Future around here, and I can't think of a nicer one than this. It's a collection of readings aimed, pretty accurately, at teen-age readership. It presents the future not as a menace or a promise, but as a home, a hard and damned interesting place to live.

-SB

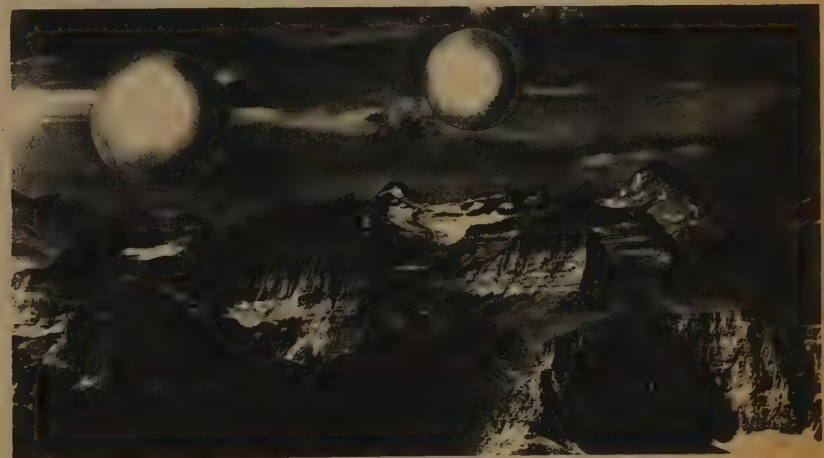
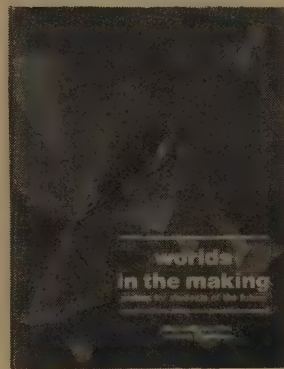
Worlds in the Making

Dunstan & Garland
1970; 370 pp.

\$4.95 postpaid

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Prentice-Hall Inc.
Englewood Cliffs, New Jersey 07632

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How Children Learn

now in paperback

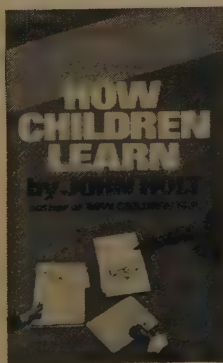
How Children Learn

John Holt
1967, 70; 156 pp.

\$.95 postpaid

from:
Dell Publishing Company
750 Third Avenue
New York, New York 10017

or WHOLE EARTH CATALOG



We must recognize that there are some teachers who like being "leader-draggers." They like to feel that they are at every moment in control, not only of the child's body, but also of his mind. They like to feel themselves the source and the sole source of all knowledge, wisdom, and learning in the classroom. Some such teachers are moved by a love of power, of which the classroom gives them plenty; others, by a deep and sometimes desperate need to feel useful, necessary, and even indispensable to their students. Both kinds are strongly threatened by any suggestion that children can and should learn on their own. Many other teachers would like to give their students more independence and self-direction, but are held back by a fear of the standardized tests by which their pupils, and they themselves, will be judged. In any school whose main business is preparing children to get high scores on achievement tests, regents' exams, merit scholarship exams, college boards, and the like, we are not likely to see much open-ended, independent student work. It must be said in fairness, too, that so far not many of the curriculum reformers and educational revolutionaries have shown much interest in it either. They tend to be so sure that the path they have marked out for their students is the best of all possible paths, that their main concern is how to lead or drag them down it as fast as possible.

Explanations. We teachers—perhaps all human beings—are in the grip of an astonishing delusion. We think that we can take a picture, a structure, a working model of something, constructed in our minds out of long experience and familiarity, and by turning that model into a string of words, transplant it whole into the mind of someone else. Perhaps once in a thousand times, when the explanation is

extraordinarily good, and the listener extraordinarily experienced and skillful at turning word strings into non-verbal reality, and when explainer and listener share in common many of the experiences being talked about, the process may work, and some real meaning may be communicated. Most of the time, explaining does not increase understanding, and may even lessen it.

It is a remarkable business. We are so used to talking that we forget that it takes a very subtle and complicated coordination of lips, tongue, teeth, palate, jaws, cheeks, voice, and breath. Simply as a muscular skill it is by far the most complicated and difficult that most of us ever learn, at least as difficult as the skill required to master a serious musical instrument. We realize how difficult speech is only when we first try to make the sounds of a language very different from our own. Suddenly we find that our mouths and tongues won't do what we want. Yet every child learns to make the sounds of his own language. If he lives where more than one language is spoken, he makes the sounds of them all. How does he do it? His coordination is poor to start with; how does he manage to do what many adults find so difficult?

The answer seems to be by patient and persistent experiment; by trying many thousands of times to make sounds, syllables, and words; by comparing his own sounds to the sounds made by people around him; and by gradually bringing his own sounds closer to the others, above all, by being willing to do things wrong even while trying his best to do them right.

*** The Hundred Thousand Songs of Milarepa**

The Mila Grubum or The 100,000 Songs of Milarepa is a holy book of Tibetan Tantric Buddhism and until now has never before been completely translated from Tibetan into any major Foreign language. Tibetan Tantrism is a form of practical Buddhism which stresses technique and Realization for carrying out the practices of all the Mahayana teachings, instead of the more theoretical forms of Buddhism which concentrate on philosophical speculations. Milarepa was the greatest saint, yogi and poet in Tibetan history and used songs to communicate his ideas in his teaching and conversation. No one knows how many he composed in his lifetime but Tibetans believe there are close to 100,000 in which he left a guide on his personal yogic experience and his advice and instruction concerning the practical problems of meditations. The text is divided into 3 parts: Milarepa's Subjugation and Conversion of Demons, Milarepa and His Human Disciples and Miscellaneous Stories.

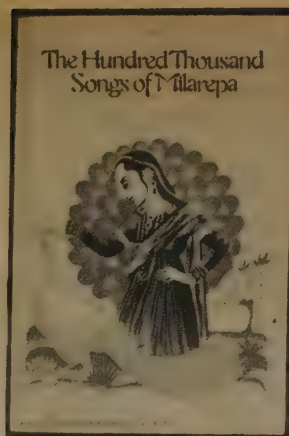
[Reviewed by Barbara DeZonia]

The Hundred Thousand Songs of Milarepa
Garma C.C. Chang, Translator
1962;70; 301 pp.

\$1.95 postpaid

from:
Harper and Row, Inc.
79 East 33rd Street
New York, New York 10016

or WHOLE EARTH CATALOG



Then Milarepa instructed the girl in the physical and mental practices, and sent her to meditate. Later on the girl, having had some experiences, and in order to dispel her doubts and break down her hindrances, came and sang to him:

... It was fine, when I contemplated on the sky!
But I felt uneasy when I thought of clouds.
How should I meditate on them?

It was good when I contemplated on the sun and moon!
But I felt uneasy when I thought of stars and planets,
How should I meditate on them?

It was good when I contemplated the great ocean!
But I felt uneasy when I thought of waves.
How should I meditate on them? ...

After hearing her song, Milarepa was greatly pleased. He knew that she really had had experiences in meditation. Thus, in order to clear her doubts and further her understanding, he sang:
... If you felt fine in meditating on the sky, so be it with the clouds. Clouds are but manifestations of the sky:
Therefore, rest right in the sphere of the sky!

The stars are but reflections of the sun and the moon;
If you can meditate on them, then why not on the stars?
Therefore absorb yourself in the light of the sun and the moon!

Waves are but the movement of the ocean; If you can meditate well on that, why not on the waves? Therefore, dissolve yourself right in the ocean!

The disturbing Thought-flow manifests the mind;
If you can meditate well on that so be it with the Thought-flow!
Therefore, dissolve yourself into the very Essence of Mind!

This is the story of Milarepa meeting his woman disciple, Bardarbom, one of his 4 female heirs, at the place of Gebha Lesum of Jung.

*** Catalog of Free Teaching Materials**

The 7th edition of a constantly updated source book for teachers and other educators of free things for a class—maps written information, an occasional free sample from some company, filmstrips, charts. This edition good for 1970-73. The introduction says that "materials in this book have been evaluated by accredited teachers, and only those items which have direct bearing on the curriculum have been included." Items are listed alphabetically by subject, and annotated to provide for clear ordering instructions and information about the exact nature of the materials.

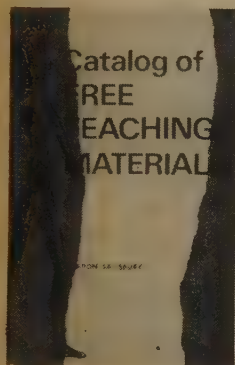
Dense, comprehensive, and clearly read.

[Suggested by BRCM.
Reviewed by D. Smith]

An Introduction to the Automotive Electrical System—No. 9010 (the charging, cranking and ignition systems and how they work, illus., 22 pp.) (6-A)	694
Fundamentals of Electricity & Magnetism—No. 5133-A (describes composition of matter, what electricity, magnetism and electromagnetism is; Ohm's Law & capacitors, illus., 1967, 36 pp.) (10-A)	694
The Cranking Circuit—No. 9025 (how circuit works; function of battery, key switch, solenoid, and starting motor, illus., 20 pp.) (4-A)	694
The Ignition System: Training Chart Manual—No. 5133-D (review of fundamentals; basic operating principles; coil, distributors, oscilloscope patterns, illus., 1968, 20 pp.) (10-A)	694
20,000 Volts Under the Hood—No. 9020 (how ignition circuit works, illus., 19 pp.) (4-A)	694
Teacher's Kit (on spark plugs—service, replacement and place in ignition system. Booklets and posters) (8-A) single kit to automotive and Vo-Ag instructors	817
It's Easy To Be An Expert . . . Battery Man, That Is—No. 9018 (how to test and charge a battery, 1961, illus., 15 pp.) (8-A)	694
Storage Batteries—Training Chart Manual—No. 5133-B (theory of operation and servicing procedures, illus., 1967, 28 pp.) (10-A)	694
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Fundamentals of Delcotron Generators—No. 5133-K (review of electricity and magnetism; operating principles and types and designs, illus., 1966, 20 pp.) (10-A)	694
Introducing the Delcotron Generator & The Charging Circuit—No. 9011 (illus., 16 pp.) (7-A)	694
Generators: Training Chart Manual—No. 5133-E (what is a generator and its use; power and ratings; types of generator circuits; testing and polarity, illus., 1958, 36 pp.) (7-A)	694
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Drug Abuse: The Empty Life—DIS-47 (types of drugs and reactions plus how young get started, 1967, 14 pp.) (7-A)	630
*Drug Abuse: Escape to Nowhere (a comprehensive guide for teachers, 1967, 104 pp.) (A)	9
Narcotics: Some Questions & Answers—PHSP-1827 (1968, 1 p. fold-out) (6-A)	389
Narcotic Drug Addiction—PHS-1021 (gen. info., 22 pp.) (12-A)	853
The Crutch That Cripples: Drug Dependence (pamphlet, 1968, 17 pp.) (9-A)	980
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The Potomac River Estuary As A Supplemental Source of Municipal Water for the Washington Metropolitan Region (a study by the National Parks Assoc., 1968, 16 pp.) (10-A)	287
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Saline Water Conservation (guide of demonstration plant in Freeport, Texas) (10-A)	927
Saline Water (1966 conservation report, 340 pp.) (A)	927



Catalog of Free Teaching Materials
Gordon Salisbury
1970; 392 pp.

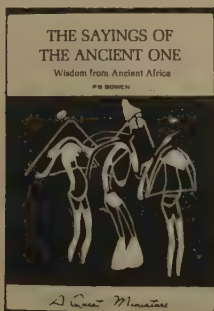
\$2.68 postpaid

from:
Catalog of Free Teaching Materials
P.O. Box 1075
Ventura, California 93001

*** The Sayings of the Ancient One**

For a small book it tells alot very heavy. It helps a learner stay on the path.

[Suggested and Reviewed by Mary Jo]



The Sayings of the Ancient One: Wisdom from Ancient Africa
P.G. Bowen
1935, 70; 41pp.

\$1.00 postpaid

from:
Theosophical Publishing House
Box 270
Wheaton, Illinois 60187

or WHOLE EARTH CATALOG

The Ancient One said:
You travel on an endless road, O Learner, when you walk according to the way of men; for you look back and see that it has no beginning and forward and see that it has no end. Therefore look neither backward nor forward, but fix your eyes on each Step as you take it; then you will see that the length of the Road is only the length of the Step. Men walk the Way of Time, O Child, and they mourn the Past and fear the Future: blot out all thought of Past and Future, and Suffering exists no more for you.

The Learner said:
I trust your wisdom, O Father; yet your words are fearful to hear, for how can life continue without memory of Past, or vision of Future?

The Ancient One said:
Cut off the Past and shut out the Future, and you lose the Life of the World of Men; yet when the Life of the World fades away, the Light Of Eternity will dawn upon your eyes. Now is THE ETERNAL, O my son! Fear and Suffering have no place there. No mists from the River of Poison obscure the Sun of Eternal DAY.

The Ancient One said:
None can tell when the Trial will come. It may meet you as you take the first Three Steps, or it may lurk in ambush on the very Threshold of Manhood. But think not about it at all, my son, for in truth it is but a Step on the Path. Fix your mind on each Step as you take it and none will seem harder to take than another.

The Learner said:
The Path of Growth and the Way of Suffering appear to be one thing, O Father: but tell me in truth does Suffering never end?

★ Extinction

Of the innumerable topical board games that have come by lately, this is the first we've seen that is both an interesting game with some subject-fresh dynamics and pretty good education. Suppose you're a nocturnal species with a high litter size of 10 and mobility of 20; you're already over-populated and in hazard of famine or pestilence; you breed in swamps and marshes and you have water pollution resistance (water pollution just eliminated your competition in the marshes); you have defense against swift predators, but one of your opponents is crafty and you think the other one is strong since he changed genes last turn; you spin the spinner and get—watch out—migrate and reproduce; what do you do? [I would migrate out of marshes and swamps and up next to the predators before reproducing. Then spread the new individuals thin in 'unfavorable' environments, thus reducing my reproduction rate and keeping well buffered against environmental changes in my breeding growths. Also I'd look for new genes.]

If the game could include considerations of nutrition, energy cycles, and specialization, I'd be happier with it, but the makers encourage you to add your own rules to make this flexible game closer to the Big Game.

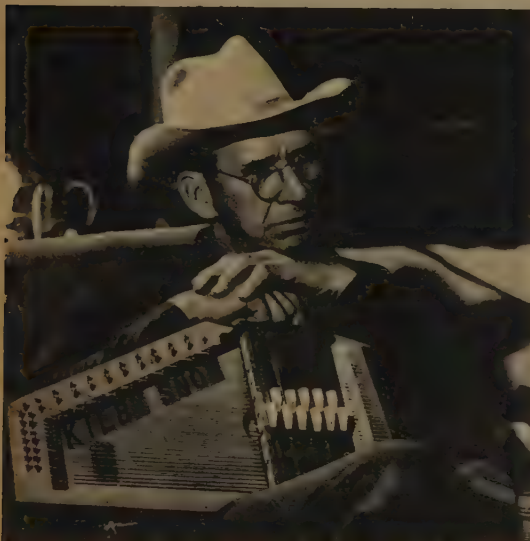
—SB



Extinction: The Game of Ecology

\$10.00 postpaid

from:
Sinauer Associates, Inc.
20 Second Street
Stamford, Connecticut 06905



Kilby Snow

★ Autoharps

i think autoharps are easier to play than guitars, mainly because the chording is done mechanically. thirty-six strings and twelve or fifteen bars of felt pads. push down a bar, and all the strings you don't want in your chord, are felt padded out, so you are left to figure out how to keep thirtysix strings in tune, and what to do with the hand that isn't pushing down bars. autoharps are cheap: thirty to forty dollars from Wards or Sears,

—jd



Maybelle Carter

Information

free

from:
Oscar Schmidt International Inc.
Department B
Garden State Road
Union, New Jersey 07083

Ernest V. Stoneman



★ Folk Style Autoharp

oak publications can get you started here's their autoharp book.

—jd

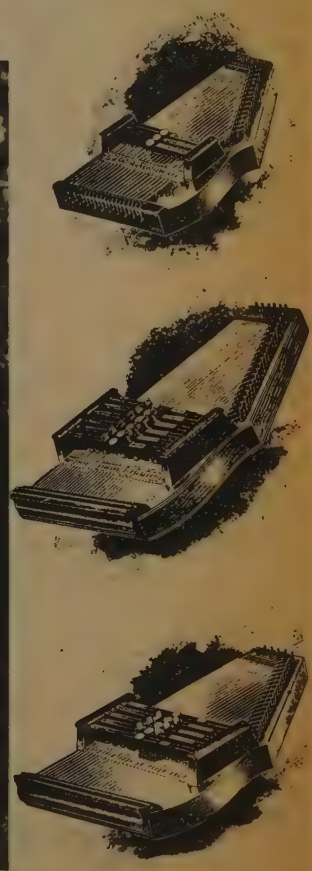
Folk Style Autoharp

Harry Taussig
1967, 70; 81 pp.

\$2.95 postpaid

from:
Oak Publications
Embassy Music Corp.
33 West 60th Street
New York, New York 10023

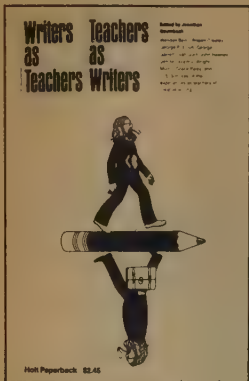
In this chapter we will return to the development of the right hand. So far all the melody notes that have been played by the right hand index finger have been played at the same times as the right hand thumb was playing a bass notes. In other words, all the melody notes that we have played have been in pinches. In this chapter we will investigate melody notes that are not played by pinches.



Writers as Teachers: Teachers as Writers

moreso, writers as writers. essays by a few writers about trying to teach and write at the same time.

-jd



Writers as Teachers: Teachers as Writers
 Edited by Jonathan Baumbach
 1970; 218 pp.

\$2.45 postpaid

from:
 Holt Rinehart and Winston
 383 Madison Avenue
 New York, New York 10017

or WHOLE EARTH CATALOG

My aim as a teacher, as I have said, is to angle at large in the realm of the possible, to be always responsive to *what might be*. There is little chance of system in this, if by system you mean an ordered progression laid out in advance. If it goes as I think it should, there is no knowing what will happen next. It is when my students begin to go beyond what I expect, surprising and informing me, that I think the work is succeeding.

I base nearly everything I attempt on one assumption: that every person's experience is in some way different from anybody else's. Hence, everybody has something to tell me that I would be interested to know. The student's task is to find out what it is and to write it well.

[Wendell Berry]

Having once taught the first grade, I can remember that lovely experience of witnessing someone's coming into the possibility of reading and writing, so that the literal fact of speech gains extension in time and space in immeasurable senses. It is an absolutely *human* delight, and if people have forgotten that, it may well be due to the fact that this incredible agency has been so hedged in by impositions of *purpose*, and necessary *meaning*, and all manner of didactic insistence. As if the only point in learning how to swim were to get from A to B. . . Poets were once called "makers" and the word *poetry* comes from a root meaning "to make." But *what* to make—despite all insistences to the contrary—is as viable as language and human condition can make manifest. It's hardly permissible to want to return some of that possibility to senses of teaching and learning.

[Robert Creeley]

We had chosen a passage from Buckminster Fuller's personal essay in the reunion book for his graduating class at Harvard College to demonstrate the importance of authorial purpose and reading audience in certain kinds of writing. Together we staggered through a reading and then patiently defined all the words which the class didn't know. After reading the passage once again, the class began to understand what was being said. Skip suggested rather blandly, "This man is against the draft."

But Gwen saw even more. Half the class was asleep or studying psychology. "Why is everybody so bored, Gwen?" "Because this man writes to put to asleep." She had seen the negative effect of writing which is meaningless to specific audiences.

We woke everyone up and in a few minutes had them all eagerly discussing the importance of considering the writer's purpose and his audience, how scientists and "people who go to Harvard" talk and write, and how choice of words can affect the ease of reading and understanding. If language could put certain people to sleep, it could also be used to attract their attention, persuade them, and change their opinions.

[John Hawkes]

Perhaps a group experience is less important in a class small enough for each individual member of it to receive—whether from teacher or fellow student—an *epiphany* at some time or other; but when a class is held once a week for only one semester and there are more than fifteen people enrolled in it, there is a mathematical likelihood that this kind of individual epiphany will occur only for a minority. Somehow, instead, I think the teacher must generate, and ferment among the students, enough passion and drama to produce a *collective* epiphany; and this not for its own sake (for it is hard to evaluate the depth or lasting value of such collective experiences) so much as for the sake of its function as gateway, portal, to new levels of feeling, to a greater openness after passing through it, and the sense of comradeship that can develop even among quite a large number of people who have been together in a time of crisis or revelation.

[Denise Levertov]



The RSVP Cycles

*The angels play on their horns all day
 The whole earth in progression seems to pass by
 But does anyone hear the music they play
 Does anyone even try*

Theres an invisible world haunting us in the myths and whisperings of the past, in the scored rock faces of our mountains and in our dreams. The invisible Within of our planet we call ecology. We should call it You, Thou or Babe. Science tries to describe the eco-process; Art tries to embody the process. Science and art are body and soul of the planetary Thou.

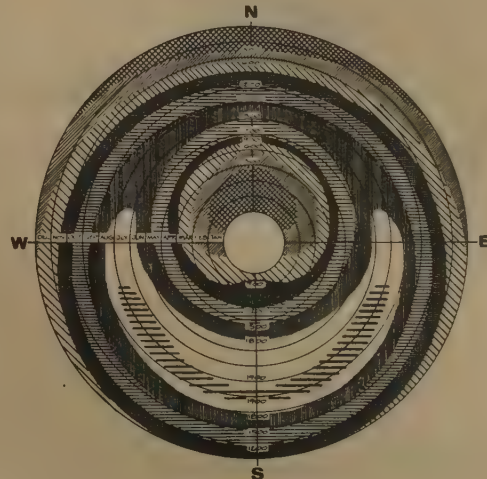
Men before our time have explored the invisible world of change, making it our scorching burden of consciousness. We know the Revolution even as we taste the Apocalypse. What we need now are visions for human kind which acknowledge You by imitating Visions which structure creativity into society instead of structuring society creatively. Visions which energize man-with-nature instead of attempting to control nature as well as man.

Our destruction of the eco-system only mirrors our murder of the creative evolutionary process within each particular man in modern society.

All this from the notebooks of an architect involved in ecological design, whose hope-oriented essays are really inspiring. Halprin agrees that we are as gods and he says we should get on with our rightful business of listening to the angels songs.

-zane

The relationship of the Tarot cards to the *I Ching* hexagrams is remarkable; both deal with universal ideas and problems facing us all in life situations. Both connect us with the subconscious activities of the human mind and with natural processes. Both deal with archetypal examples of what Jung has called the "collective unconscious." In both the divination process itself requires a letting go of the intellect—an acknowledgement of the rhythmic and unconscious forces at work in the universe. If we can give way to these forces and think of ourselves as part of the universal processes of living, of time in space, then we can release ourselves from preconceptions and hangups which prevent and block creativity. One of the important functions of scores is to make possible and accepted nonrational means of "getting at" problems. Both the Tarot cards and the *I Ching* have been used by musicians such as Pauline Oliveros and Morton Subotnik as compositional devices. Pauline Oliveros has said "I mix chance and choice somewhat scandalously" (*Notations*, John Cage).



The RSVP Cycles

Creative Processes in the Human Environment
 Lawrence Halprin

The RSVP Cycles: Creative Process in the Human Environment
 Lawrence Halprin
 1969; 207 pp.

\$15.00 postpaid

from:
 George Braziller, Inc.
 One Park Avenue
 New York, New York 10016

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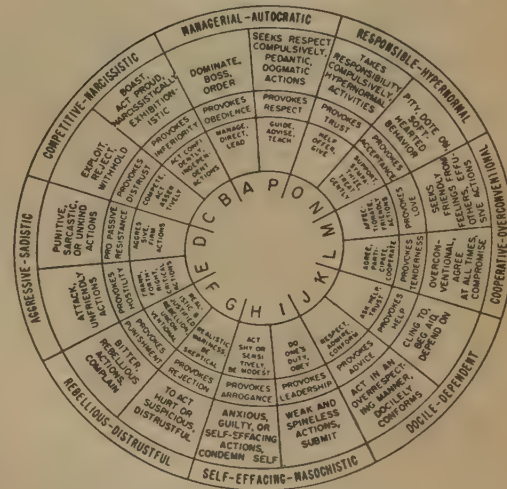
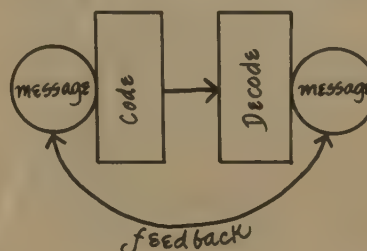


Chart from early work of Timothy Leary which reveals the causal-variant interrelation between people based on their own impact on others.

One of the gravest dangers that we experience is the danger of becoming *goal-oriented*. It is a tendency that crops up on every hand and in every field of endeavor. It is a trap which goes like this: things are going poorly (in the realm of politics or religion or building a city or the world community or a personal relationship or whatever). As thinking people we must try to solve this problem that faces us. Let us set ourselves a "goal" upon which we can all agree (most goals after all are quite clearly moralistically based and incontrovertibly "good ideas"). Having set ourselves this goal we can then proceed posthaste to achieve it by the *most direct method possible*. Everyone can put his shoulder to the wheel, and systems engineering, technology, and our leader (or whatever) will get us to the agreed goal.

It doesn't work! The results of this oversimplified approach, now coming into general vogue, are all around us in the chaos of our cities and the confusion of our politics (or other politics—fascism and communism are clear statements of this approach.) It generates tension in personal relationships by burying the real problems; it avoids the central issue of education, which is why today's young people are dropping out; it is destroying the resources and physical beauty of our planet; and it avoids the basic issue.

Score for dialogue between people.



Meditation in Action

The Venerable Trungpa Rinpoche was some kind of a high abbot over a district of monasteries in Tibet, so you can expect a book of his talks to be some kind of esoteric and too profound for us surface-dwellers.

If it's esoteric, he's cleverly hidden that fact, and surface dwellers are being sucked in from all over the map. I've never seen so much good sense in so little space on the subject of meditation. As a book, it trends toward the very goal: singularity.

-SB

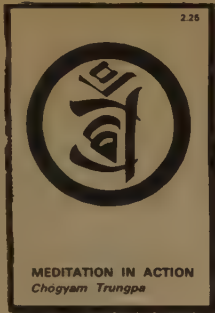
Meditation in Action

Chogyam Trungpa
1969; 74 pp.

\$2.25 postpaid

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Shambala Publications
2010 Seventh Street
Berkeley, CA 94710

or **WHOLE EARTH CATALOG**



The point is that whatever one is trying to learn, it is necessary to have first hand experience, rather than learning from books or from teachers or by merely conforming to an already established pattern. That is what he found, and in that sense Buddha was a great revolutionary in his way of thinking. He even denied the existence of Brahma, or God, the Creator of the world. He determined to accept nothing which he had not first discovered for himself.

... He developed the creative side of revolution, which is not trying to get help from anyone else, but finding out for oneself. Buddhism is perhaps the only religion which is not based on the revelation of God nor on faith and devotion to God or gods of any kind. This does not mean that Buddha was an atheist or a heretic. He never argued theological or philosophical doctrines at all. He went straight to the heart of the matter, namely, how to see the Truth. He never wasted time in vain speculation.

If we are meditating at home and we happen to live in the middle of the High Street, we cannot stop the traffic just because we want peace and quiet. But we can stop ourselves, we can accept the noise. The noise also contains silence. We must put ourselves into it and expect nothing from outside, just as Buddha did. And we must accept whatever situation arises. As long as we never retreat from the situation, it will always present itself as a vehicle and we will be able to make use of it. As it is said in the Scriptures, "The Dharma is good at the beginning, the Dharma is good in the middle and the Dharma is good at the end." In other words the Dharma never becomes out-of-date, since fundamentally the situation is always the same.

The whole point is to cultivate the acceptance of everything, so one should not discriminate or become involved in any kind of struggle. That is the basic meditation technique, and it is quite simple and direct. There should be no deliberate effort, no attempt to control and no attempt to be peaceful. This is why breathing is used. It is easy to feel the breathing, and one has no need to be self-conscious or to try and do anything. The breathing is simply available and one should just feel that. That is the reason why technique is important to start with. This is the primary way of starting, but it generally continues and develops in its own way. One sometimes finds oneself doing it slightly differently from when one first started, quite spontaneously. This is not classified as an advanced technique or a beginner's technique. It simply grows and develops gradually.

Where there is an external person, a higher Being, or the concept of something which is separate from oneself, then we tend to think that because there is something outside there must be something here as well. The external phenomenon sometimes becomes such an overwhelming thing and seems to have all sorts of seductive or aggressive qualities, so we erect a kind of defence mechanism against it, failing to see that that is itself a continuity of the external thing. We try to segregate ourselves from the external, and this creates a kind of gigantic bubble in us which consists of nothing but air and water or, in this case, fear and the reflection of the external thing. So this huge bubble prevents any fresh air from coming in, and that is "I"—the Ego. So in that sense there is the existence of Ego, but it is in fact illusory.

Q. For meditation, would a student have to rid himself of Ego before he started, or would this come naturally as he is studying?

A. This comes naturally, because you can't start without Ego. And basically Ego isn't bad. Good and bad doesn't really exist anywhere, it is only a secondary thing. Ego is, in a sense, a false thing, but it isn't necessarily bad. You have to start with Ego, and use Ego, and from there it gradually wears out, like a pair of shoes. But you have to use it and wear it out thoroughly, so it is not preserved. Otherwise, if you try to push Ego aside and start perfect, you may become more and more perfect in a rather one-sided way, but the same amount of imperfection is building up on the other side, just as creating intense light creates intense darkness as well.

Book of the Hopi

If you're susceptible to tarot or astrology, you'll probably revel in this book. Its business is the esoteric lore and historical drama which lives and protects the Hopi Indians in Arizona. They were possibly the farthest out of the American tribes (in present times they are not as together as Zuni, or Taos, but they are larger and so is what they attempted). This is the mysticism not of change but of stability, of the year cycle, of one more winter of food obtained by the hard knowledge from uncounted prior generations of winters and, they say, travels from world to world and place to place to arrive finally at the center, these bleak mesas, to here sustain forever responsibility for the well-being of the world. Frank Waters was perhaps too eager to write a Bible, but I can't blame him. It's that kind of knowledge.

-SB

Book of the Hopi

Frank Waters,
Oswald White Bear Fredericks
1963; 423 pp.

\$1.25 postpaid

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101 Fifth Avenue
New York, New York 10003

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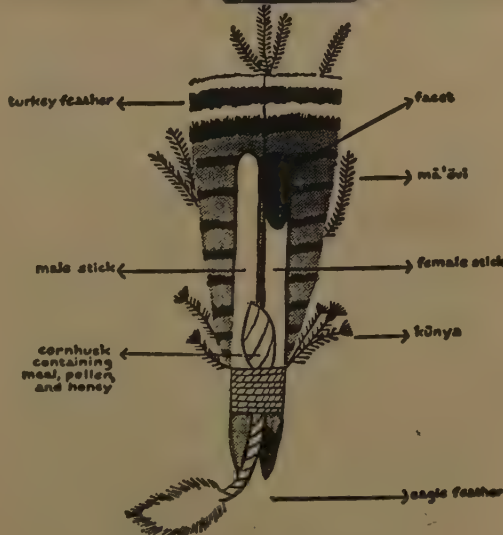
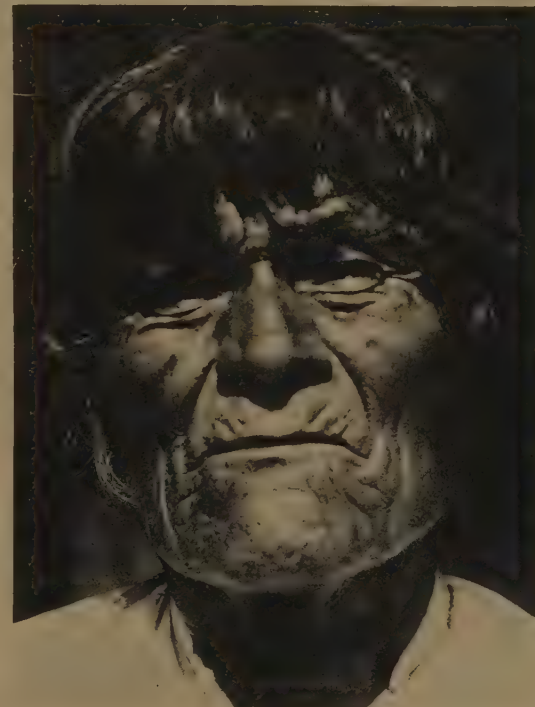
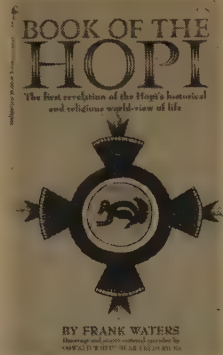


Figure 55. Male-and-female páho

Every páho, simple or complex, is made with prayerful concentration and ritually smoked over. Then it is carried to a shrine, where it is stuck in a cleft of rocks or hung on a bush and left until the invisible vibrations of the prayer it embodies are slowly absorbed by the forces of life to which it is dedicated.

So the people emerged to the Second World. Its name was Tokpa Dark Midnight. Its direction was south, its color blue, its mineral gochasiba, silver. Chiefs upon it were salavi, the spruce; kwahu, the eagle; and kolichiyaw, the skunk.

It was a big land, and the people multiplied rapidly, spreading over it to all directions, even to the other side of the world. This did not matter, for they were so close together in spirit they could see and talk to each other from the center on top of the head. Because this door was still open, they felt close to Sotuknang and they sang joyful praises to the Creator, Taiowa.

They did not have the privilege of living with the animals, though, for the animals were wild and kept apart. Being separated from the animals, the people tended to their own affairs. They built homes, then villages and trails between them. They made things with their hands and stored food like the Ant People. Then they began to trade and barter with one another.

This was when the trouble started. Everything they needed was on this Second World, but they began to want more.



Parrot Clan maiden sitting on a plaque of seeds during Soyá! Ritual.

Desmond Shiu Massage Roller or Can the Yellow Man Help the White Man?

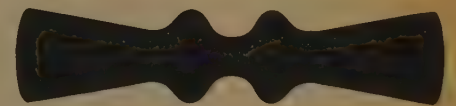
"based on ancient Chinese philosophy of the five elements. Here is an understanding of pollution and a sound concept of civilisation. In ancient China, man set out to conquer Nature but lived in harmony with Her. Civilisation and culture have to start from within. They are an externalisation of inner truths. Confucius got hold of one pole of man's being, the heart he called JEN, but for him physical training was of equal importance.

The massage roller cleanses man's life body and strengthens it, restoring to it its native largeness, calm, and creativity. A strong and healthy body is holy and unpoluted, as portrayed in all great sculptures. Notwithstanding, pollution should not be understood as alone the pollution of physical substances. It is as well the pollution of consciousness. However, that works in vicious circles, and we need to break in from all sides.

A revolution is waging. Each individual is responsible whatever his station in life. Therefore ecology in human terms is the civilisation we try to save. The massage roller is offered as a tool for this revolution."

merce and i have used this lathe-turned chunk of hardwood for a couple of months, and it seems to work. it is a one man massage; you lie on it and roll it down your back by scooting your body over it.

-jd



Massage Roller

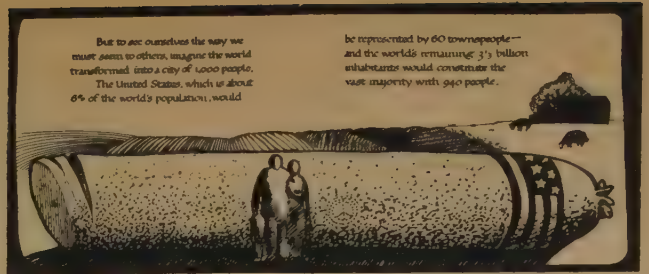
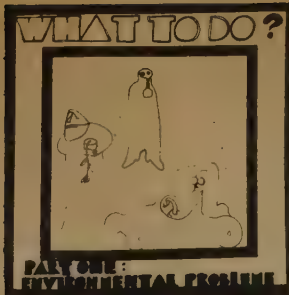
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from:
Desmond Shiu
P.O. Box One
Forest Row
Sussex, England

**What To Do?
What To Do!**

if you know someone who doesn't know yet that there is an environmental problem, give them this book for groundhog day.

-jd



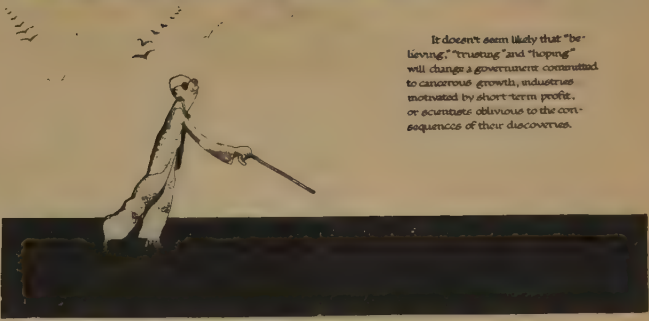
But to see ourselves the way we must seem to others, imagine the world transformed into a city of 4,000 people. The United States, which is about 6% of the world's population, would

be represented by 60 townspeople—and the world's remaining 3.5 billion inhabitants would constitute the vast majority with 340 people.

What To Do? What To Do!
Robinson Poliat Holmes
1970; 90 or so pp.

\$2.50 postpaid

from:
What To Do
Jo Robinson
1535 South East Alder
Portland, Oregon 97214



It doesn't seem likely that "believing," "trusting" and "hoping" will change a government committed to cancerous growth, industries motivated by short-term profit, or scientists oblivious to the consequences of their discoveries.

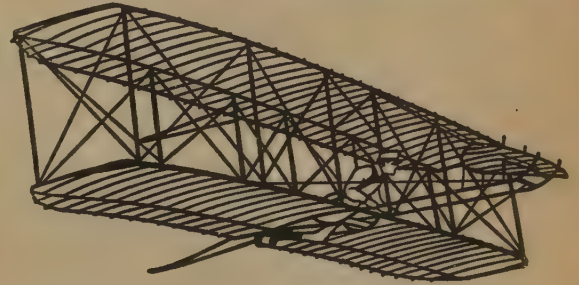
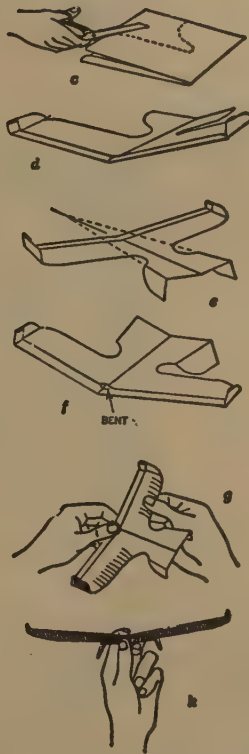
How To Make and Fly Paper Airplanes

written by the winner of the Great International Paper Airplane Contest.

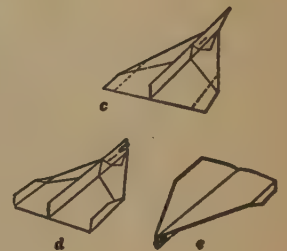
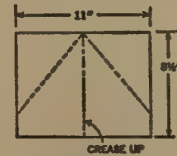
-jd



RB Barnaby 1967



Wilbur Wright in the 1902 glider.



How to Make and Fly Paper Airplanes
1970; 83 pp.

\$.75

from:
Bantam Books Inc.
666 Fifth Avenue
New York, New York 10019

or WHOLE EARTH CATALOG



Better Cooperage With Good Cooperage Tools

So you wanna make a barrel and you need a howel and a croze hook and a flaggin' iron and a... a... whatchamacallit. John Stortz has them all. Kinda Expensive, but they sure do look nice.

-FR

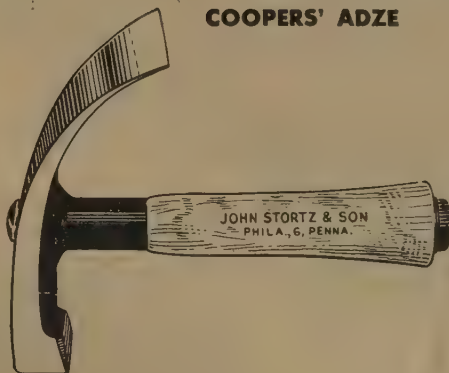
Catalog

\$.25

from:
John Stortz & Son, Inc.
210 Vine Street
Philadelphia, Pennsylvania 19106



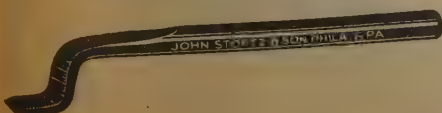
COOPERS' ADZE



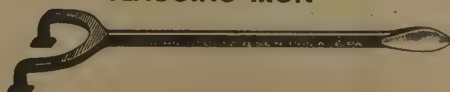
CALKING IRON



BARREL HEAD RAISER



FLAGGING IRON



New Schools Exchange

A much needed service, the New Schools Exchange functions as an access switchboard for individuals and organizations trying alternatives to the big gray schoolhouse. The Exchange publishes a directory of all the new schools and educational reform groups, and they put out a weekly newsletter describing new school attempts (8-10 a week).

[Suggested by Jim Fadiman]



New Schools Exchange
Harvey Haber, Cass Sperling, eds.

\$10 /year; \$5/5 months minimum.

from:
New Schools Exchange
2940 Hidden Valley Lane
Santa Barbara, CA 93139

The Secret of the Golden Flower

*the way it reads to me:
pass beyond the little old man
sitting on
that ledge of awareness
on which
you watch yourself making love,
become the little old man,
split him a few times,
and realize that,
because all this is possible,
the light from the golden flower
dissolves duality
into the one.*

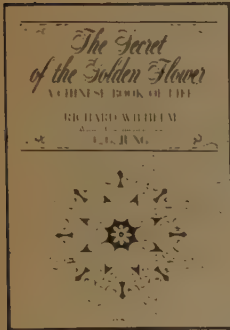
-jd



夫嬌嬌之真
孕蟄之英
傳其術交其
其神隨其天
可得其真

Master Lu-Tsu said, When there is a gradual success in producing the circulation of the light, a man must not give up his ordinary occupation in doing it. The ancients said, When occupations come to us, we must accept them; when things come to us, we must understand them from the ground up. If the occupations are properly handled by correct thoughts, the light is not scattered by outside things, but circulates according to its own law. Even the still invisible circulation of the light gets started this way; how much more, then, is it the case with the true circulation of the light which has already manifested itself clearly.

One looks with both eyes at the tip of the nose, sits upright and in a comfortable position, and holds the heart to the centre in the midst of conditions. In Taoism it is called the yellow middle, in Buddhism the center of the midst of conditions. The two are the same. It does not necessarily mean the middle of the head. It is only a matter of fixing one's thinking on the point which lies exactly between the two eyes. Then all is well. The light is something extremely mobile. When one fixes the thought on the mid-point between the two eyes, the light streams in of its own accord. It is not necessary to direct the attention especially to the central castle. In these few words the most important thing is contained.



The Secret of the Golden Flower
translated by Richard Wilhelm
1962; 149 pp.

\$2.35 postpaid

from:
Harcourt Brace and World, Inc.
757 Third Avenue
New York, New York 10017

or **WHOLE EARTH CATALOG**

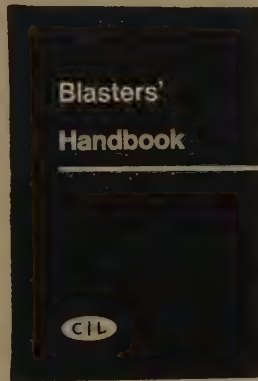
Blasting

Explosives are a cheap, highly portable, concentrated source of energy, an industrial and agricultural tool and as such useable and useful to the amateur who has need of such tools. Dangerous? Yes, but only a small hazard with reasonable care.—consider as no more, NOR LESS, dangerous than a gun which has no safety and is never unloaded. Treat accordingly—particularly with regard to whom you allow to handle them! Can YOU use explosives? . . . Yes—with care. Will YOU be ALLOWED to? . . . Probably, but there ARE regulations and they vary too widely for generalisations.

What would you want them for? The possible answers to that question would surprise most people—the uses of explosives range from the moulding of NASA hardware to the manufacture of diamonds! For the amateur though the most likely uses will lie in the making of access roads, foundations, land clearance and drainage. For instance, \$25 worth of explosive will break up 150-400 tons of rock, or lift out and break up a dozen large stumps, or blow a ditch four feet deep, twelve feet wide at the top, tapering to four at the bottom and one hundred feet long. It is often, in outlying areas, cheaper to use explosives for a small drainage or creek diversion project than to pay the cost of getting a backhoe to the site. Also explosives can be used anywhere a man can go, which is often to places machines can't. Even for a simple job like digging a trench for a culvert, a few dollars worth of dynamite used merely to loosen hard-packed soil can easily make the difference between man days of pick work and man hours of shovel work.

Old stacks, of both round and square section, whether constructed of brick or concrete, can be rapidly and economically felled by blasting where there is sufficient room. Further, they can be made to fall in the desired direction, or "on line."

The "falling notch" principle a lumberjack uses when he cuts a notch at the base of a tree, is the method employed. This involves blasting an opening cut out of that side of the stack in the direction of fall, and subsequently widening this cut by blasting successive holes, or rows of holes, on each side of it. It is essential to shoot the corresponding holes, or rows of holes, one on each side of the opening cut, simultaneously. In this way the final blast undermines each side of the stack at exactly the same instant and thus it topples over in the desired direction. Sometimes it is of assistance to drill a row of closely spaced holes on that side of the stack opposite the direction of fall. These holes are not blasted but provide a line of weakness so that the masonry will part readily and allow the stack to break away from its foundation when the undermining has been completed.



CIL Blaster's Handbook

\$6.00 postpaid

from **WHOLE EARTH CATALOG**

The next question is: Where do you go for more information? And the answer to that is . . . your phone book, under "Explosives" in the yellow pages. Try first the nearest big company; du Pont has the most literature, Hercules seems the most helpful. Then try your nearest dealer, your local police, fire chief and Highway Patrol, in that order. Know before you pick up the phone what you want to do and simply ask for advice and help with the regulations to enable you to do it. It is, however, normal to find that about half the latter have little idea themselves, so persist until you have read your local regulations for yourself, if necessary writing to your state capital. It goes without saying that the most useful information anyone can give you is the address of a neighbor who is experienced in handling dynamite. If you are unlucky and have to work entirely from the book, don't worry too much—there isn't any reason why you shouldn't do so safely, with no more than common sense AND RIGID ADHERENCE TO THE BOOK'S INSTRUCTIONS. Without knowledge of the reasons behind the regulations and the book's "Do's and Don'ts", you must not deviate in the slightest. In particular your local regulations for transport, storage and use will be framed to reflect local conditions and hazards—every little detail MUST be scrupulously observed.

Practical literature is restricted to publications of the Institute of Makers of Explosive, 420 Lexington Avenue, New York, 10017, handouts from manufacturers and, for those who have \$6 to invest, *Blaster's Handbook* from E.I. du Pont de Nemours, Wilmington, Delaware or Canadian Industries Limited, Montreal, Quebec. Imperial Chemical Industries, Limited, Nobel Division, Stevenston, Ayrshire, Scotland, also provides a handbook entitled *Blasting Practice*. Whilst the handbooks admittedly contain everything, they necessarily therefore only devote a small fraction of their space to the needs of the amateur; moreover, being aimed at the professional, they are neither well laid out nor well written for anyone else.

There is a pamphlet which, despite its small size and vaguely apologetic foreword, is a class above anything else in its field and a model of terse lucidity—"Efficient Blasting through the proper care and use of Safety Fuse" from the Ensign-Bickford Company, Simsbury, Connecticut.

Two final points: if you want to blast near rail, power, phone or pipe lines, contact the owner; and if you have charged up your first blast and want to know how far to retire and discover that the books become suddenly vague at that point—well, half a mile is a nice round figure. . .

[Suggested and reviewed by Keith Britton, Advanced Blasting Company]



Fig. 254 A 1.3 cu. yd. boulder before mudcapping.

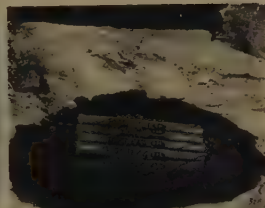


Fig. 255 Embedding the cartridges of explosive in a thin layer of clay increases the efficiency of the charge.

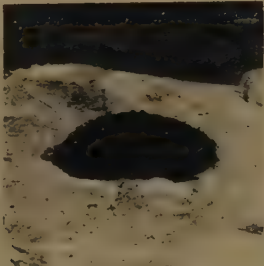


Fig. 256 Mudcap charges should be covered with a generous coating of mud or sand before firing.



Fig. 257 Results of an efficient mudcap charge.

If several charges in close proximity are to be shot at the same time, firing must be carried out by means of B-Line Detonating Fuse or E. B. caps because all charges must detonate simultaneously; otherwise the first charge to fire might dislodge those on adjacent boulders. Where a single charge is to be fired, a fuse and cap may be used.

Rock varies greatly in hardness, density, cleavage planes, etc., thus charges from two to six 1 1/4"x8" cartridges per cubic yard may be required. If the rock is very large or its width greatly exceeds its height, the charge should be divided into two or more parts and placed so that they will have the maximum effect. In the case B-Line Detonating Fuse or E.B. caps should be used for simultaneous firing.



Fig. 289 An opening notch is first blasted in the 14' x 14' base of a 127-foot brick stack.



Fig. 290 Final blast brings down stack shown in Fig. 289 "on line".

*** The New Religions**

One splendid effect of ecumenical technology is our new and deep access to top scientists from the East such as Suzuki Suzuki Roshi, Meher Baba, Bapak, Krishnamurti, Tarthans Tulku, and others. Jacob Needleman, young head of the Philosophy Department at San Francisco State, has perceived their various convergent messages and assembled a thoroughly useful catalog. He's as serious as any student, and he knows more than one thing at a time. I hope he will expand a later edition of the book to include Gurdjieff, the Native American Church, and the whole Sufi number.

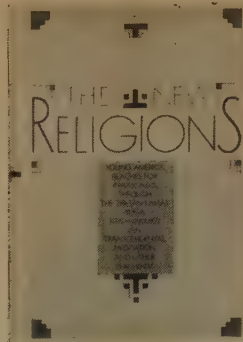
-SB

The New Religions
Jacob Needleman
1970; 245 pp.

\$5.95 postpaid

from:
Doubleday and Company, Inc.
277 Park Avenue
New York, New York 10017

or WHOLE EARTH CATALOG



The contemporary disillusionment with religion has revealed itself to be a religious disillusionment. Men are moving away from the forms and trappings of Judaism and Christianity not because they have stopped searching for transcendental answers to the fundamental questions of human life, but because that search has now intensified beyond measure.

It has been said that every time and place has its own despair. The despair of California is the despair of people relentlessly getting what they want.

At Tassajara, however, one comes to see monasticism not as a flight from society, but to society. The principle difference between the monastic society and ours is surely not that ours is more real, but that in this monastery everyone has a common aim. Moreover, this aim is for themselves: each to awaken to his true nature, each to find "his own way."

In such a community, there exists a constant danger that in the name of charity and kindness someone will find my way for me, will directly or indirectly tell me what to do, what is good and what bad. As a result, I may find a way, but not my own way; I will discover a nature, but not necessarily my own nature.

Some people say, "If we have a perfect social construction, we will not have these difficulties." But as long as there is human nature, nothing will help us. On the contrary, the more human culture advances, the more difficulties we will have in our life. The advancement of civilization will accelerate this contradiction in our nature. When we realize the absolute presence of our contradictory nature, the way-seeking mind arises, and we begin to work on ourselves instead of the material world. Most people who are interested in Buddhism are more or less critical of our social condition, expecting a better social framework.

Baba was sitting on his bed. Naked from the waist up. I think there were two other men in the room. And Baba just—beamed at me, man, I always have difficulty talking about Baba. I mean, I'm not given to having visions or hallucinations. For me, it was just this incredible, extraordinary light, like his head was the center of it, like emanating in all directions. It filled everything. To the extent that tears started forcibly coming out of my eyes like a reaction to all this incredible light.

*** Tales of the North American Indians**

most anthropology always seemed a little like legalized graverobbing to me. this book does everything through a cross-reference bibliography-type distance from the content classification system, but the tales survive. it is a fine readable collection of farout stories.

-jd

Tales of the North American Indians
selected and annotated
by Stith Thompson
1966; 385 pp.

\$2.95 postpaid

from:
Indiana University Press
Tenth and Morton Streets
Bloomington, Indiana 47401

or WHOLE EARTH CATALOG



*** The Bible of the World**

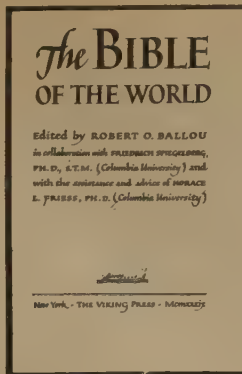
A collection of the essential writings of the eight major religions—Hindu, Buddhist, Confucianist, Taoist, Zoroastrian, Judeo-Christian, and Mohammedan. Super for dipping into as literature & poetry; more than adequate at conveying the essential sameness, rather than the differences between religious philosophies. Softly mind-expanding.

[Reviewed by Diana Shugart]

The Bible of the World
Robert O. Ballou, editor
1939; 1415 pp.

\$12.00 postpaid

from:
Viking Press
625 Madison Avenue
New York, New York 10022



"O Partha, behold these Kurus gathered together."

Then saw Partha standing there, uncles and grandfathers, teachers, mother's brothers, cousins, sons and grandsons, comrades, fathers-in-law and benefactors also in both armies; seeing all these kinsmen thus standing arrayed, Arjuna, deeply moved to pity, thus uttered in sadness:

"Seeing these my kinsmen, O Krishna, arrayed, eager to fight, my limbs fail and my mouth is parched, my body quivers, and my hair stands on end, Gandiva slips from my hand, and my skin burns all over, I am not able to stand, my mind is whirling, and I see adverse omens, O Kesava. Nor do I foresee any advantage from slaying kinsmen in battle.

"For I desire not victory, O Krishna, nor kingdom, nor pleasures; what is kingdom to us, O Govinda, what enjoyment, or even life? Those for whose sake we desire kingdom, enjoyments and pleasures, they stand here in battle, abandoning life and riches—teachers, fathers, sons, as well as grandfathers, mother's brothers, fathers-in-law, grandsons, brothers-in-law, and other relatives. These I do not wish to kill, though myself slain, O Madhusudana, even for the sake of the kingship of the three worlds; how then for earth?

"Slaying these sons of Dhritarashtra, what pleasure can be ours, O Janardana? Killing these desperadoes, sin will take hold of us. Therefore we should not kill the sons of Dhritarashtra, our relative; for how, killing our kinsmen, may we be happy, O Madhava? Although these, with intelligence overpowered by greed, see no guilt in the destruction of a family, no crime in hostility to friends, why should not we learn to turn away from such a sin, O Janardana, who see the evils in the destruction of a family? In the destruction of a family the immemorial family traditions perish; in the perishing of tradition, lawlessness overcomes the whole family; owing to predominance of lawlessness, O Krishna, the women of the family become corrupt; women corrupted, O Varshneya, there arises caste-confusion; this confusion drageth to hell the slayers of the family, and the family; for their ancestors fall, deprived of rice-balls and libations. But by these caste-confusing misdeeds of the slayers of the family, the everlasting caste customs and family customs are abolished. The abode of the men whose family customs are extinguished, O Janardana, is everlasting hell. Thus have we heard. Alas! in committing a great sin are we engaged, we who are endeavouring to kill our kindred from greed of the pleasures of kingship. If the sons of Dhritarashtra, weapon in hand, should slay me, unresisting, unarmed, in the battle, that would for me be the better."

The beaver and the porcupine were great friends and went about everywhere together. The porcupine often visited the beaver's house, but the latter did not like to have him come because he left quills there. One time, when the porcupine said that he wanted to go out to the beaver's house, the beaver said, "All right, I will take you out on my back." He started, but instead of going to his house he took him to a stump in the very middle of the lake. Then he said to him, "This is my house," left him there, and went ashore.

While the porcupine was upon this stump he began singing a song, "Let it become frozen. Let it become frozen so that I can cross to Wolverine-man's place." He meant that he wanted to walk ashore on the ice. So the surface of the lake froze, and he walked home.

Some time after this, when the two friends were again playing together, the porcupine said, "You come now. It is my turn to carry you on my back." Then the beaver got on the porcupine's back, and the porcupine took him to the top of a very high tree, after which he came down and left him. For a long time the beaver did not know how to get down, but finally he climbed down, and they saw that this is what gives the broken appearance to tree bark.

Grizzly Bear and Doe, the two wives of Chickenhawk, were pounding acorns. When they had finished, one of them said, "Let us go down to the creek and leach the meal." While they were waiting for the meal to soak, they agreed to hunt one another's heads for lice. Doe looked first in Grizzly's hair. "You have no lice," she said. "Well then," said Grizzly, "I will look in yours." When in her search she reached the Doe's neck she sprinkled in some sand. "You have

Having thus spoken on the battlefield, Arjuna sank down on the seat of the chariot, casting away his bow and arrow, his mind overborne by grief. [The Bhagavad-Gita]

THE TWO MASTERS

A king said to a Shaikh in conversation: "Ask me for something in the way of a gift."

The Shaikh said, "Are you not ashamed to speak so to me? Be above this. I have two slaves, and despicable they are; but those two are rulers and lords over you."

The king said, "What are those two? This is an error."

He replied, "The one is 'anger' and the other 'sensuality.'"

[from Mohammedan Scriptures]

THE SHEPHERD'S PSALM

The Lord is my shepherd; I shall not want. He maketh me to lie down in green pastures: he leadeth me beside the still waters.

He restoreth my soul: he leadeth me in the paths of righteousness for his name's sake.

Yea, though I walk through the valley of the shadow of death, I will fear no evil: for thou art with me; thy rod and thy staff they comfort me.

Thou preparest a table before me in the presence of mine enemies: thou anointest my head with oil; my cup runneth over. Surely goodness and mercy shall follow me all the days of my life, and I will dwell in the house of the Lord for ever.

[Old Testament]

PLEA TO AN ANCESTOR

Alas for me, who am a little child, On whom has devolved the unsettled state! Solitary am I and full of distress.

Oh! my great father, All thy life long, thou wast filial.

Thou didst think of my great grandfather, Seeing him, as it were, ascending and descending in the court;

I, the little child, Day and night will be as reverent.

Oh! ye great kings, As your successor, I will strive not to forget you.

[from Confucianist Scriptures]

OF RICHES (According to Matthew)

And, behold, one came and said unto him, Good Master, what good thing shall I do, that I may have eternal life? And he said unto him,

Why callest thou me good? there is none good but one, that is, God: but if thou wilt enter into life, keep the commandments.

He saith unto him, Which? Jesus said,

Thou shalt do no murder, Thou shalt not commit adultery, Thou shalt not steal, thou shalt not bear false witness, Honour thy father and thy mother: and, Thou shalt love thy neighbor as thyself.

The young man saith unto him, All these things have I kept from my youth up: what lack I yet? Jesus said unto him,

If thou wilt be perfect, go and sell that thou hast, and give to the poor, and thou shalt have treasure in heaven: and come and follow me.

But when the young man heard that saying, he went away sorrowful: for he had great possessions.

Then said Jesus unto his disciples,

Verily I say unto you, That a rich man shall hardly enter into the kingdom of heaven. And again I say unto you, It is easier for a camel to go through the eye of a needle, than for a rich man to enter the kingdom of God.

When his disciples heard it, they were exceedingly amazed, saying, Who then can be saved? But Jesus beheld them, and said unto them, With men this is impossible; but with God all things are possible.

many lice," she said, "I will chew them" "Ukka! ukka!" cried Doe, "hold on there." Biting her head off, she killed her. Taking Doe's head and both lots of acorn meal she went back to the house. She put the head in the fire and when the eyes burst with the heat she told the children it was only the white oak log cracking in the fire. "I think it is our mother's head," said one of the Doe's children. "Go a long way off and play," said Grizzly. "You won't be permitted to live long," they heard their mother's hair say to them.

The two bear children and the two fawns went out to play. "Let us play smoke-each-other-out in this hollow log," suggested the fawns. The bears agreed and the fawns went in first. "That's enough, that's enough," they cried. "Now you go in," they told the bears. The fawns fanned the smoke into the log until the bears were smothered. Going back to the house, one of them held out what she had in her hand and said, "Here is a skunk we killed in a log." "Thank you, my niece; after a while I will make a meal upon them," replied Grizzly.

"She is eating her children," she heard some one say. "What did you say?" she asked. "First you killed a person, and now you are eating your own children's hands." She ran after the children who had been taunting her. When she came near them she called in a pleasant voice, "Well, come home." They ran up on a ridge and barely escaped being caught. Finally they came to a place where Crane was fishing by the river. "Grandfather, put your neck across and let us go over on it. An old woman is after us. Put your neck across."

They crossed over safely and running to the top of a ridge hid in a hole in a rock. When Grizzly came, Crane put his neck across again for a bridge, but when she was half way over he gave it a sudden twist. She went floating down the middle of the stream.

Bargain Basement

these books are intended for reading
use them as you see fit.

-jd

* Tarzan of the Apes

back to nature.

Tarzan of the Apes
Edgar Rice Burroughs
1912, 69; 445 pp.

\$1.50 postpaid

from:
Department CS
Ballantine Books, Inc.
101 Fifth Avenue
New York, New York 10003

or WHOLE EARTH CATALOG



"Here it is, Professor Porter," and Tarzan drew an envelope from his pocket and handed it to the astonished professor, "two hundred and forty-one thousand dollars. The treasure was most carefully appraised by experts, but lest there should be any question in your mind, D'Arnot himself bought it and is holding it for you, should you prefer the treasure to the credit."

"To the already great burden of the obligations we owe you, sir," said Professor Porter, with trembling voice, "is now added this greatest of all services. You have given me the means to save my honor."

* A Place on Earth

kentucky

A Place on Earth
Wendell Berry
1966, 69; 504 pp.

from:
Avon Book Division
The Hearst Corporation
959 Eighth Avenue
New York, New York 10019

or WHOLE EARTH CATALOG



Burley nods. "So when the Greatlows knocked and hollered at the back door, nobody came. The light was on inside and they could hear Roger talking—to himself, I reckon—but they couldn't raise him. They gave up there finally, and went on over the hill as far as they could go in the car, and then tried to cross that muddy bottom to get to the Crops' house. Of course there wasn't any chance of that. They had nearly a mile to go and the creek to cross, and it still running full, and they never even had a light. They sort of felt their way along for a while, and finally admitted it was hopeless, and turned back. And then they see that they ought to have left the car lights on because they'd lost their sense of where they were, and it took them a good'while, creeping along the way they had to in the dark, to find the car. They got to it, finally, and got turned around and started back up the hill—and were just ready to give up and go home again when the old woman remembered the road that used to go down from our place. She figured that if they could get to the foot of the hill there she would at least be in calling distance of the house. So they (or rather, she) decided to try it. She hadn't been down that road since she was young, but she thought that in all that time it surely was bound to have got better, not worse."

* Through an Eastern Window

zen

Through an Eastern Window
Jack Hüber
1965; 120 pp.

\$1.95 postpaid

from:
Bantam Books, Inc.
666 Fifth Avenue
New York, New York 10019

or WHOLE EARTH CATALOG



And then—it was late in the morning—a white, clear screen came before my eyes. In front of the screen passed, or rather, floated simple images—faces, objects. I have no clear recollection of the images. A rush of feeling came over me.

I burst into tears; the tears became quiet sobbing.
I do not remember at what point I had stopped the exercise . . .

My feeling was that I was seeing something of great importance, as if everything fitted together for the first time. What had all my life struggles been about? Things were very clear and very simple.

* Sometimes a Great Notion

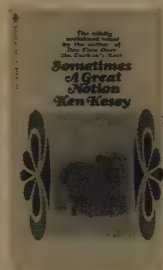
i get

Sometimes a Great Notion
Ken Kesey

1964, 1970; 599 pp.

\$1.25 postpaid

from:
Bantam Books
666 Fifth Avenue
New York, New York 10019



... but every word he sings, every jump and gesture, seems to be an act of making up a ritual for conjuring some fierce fiend out of the earth, a ritual he can't stop because every act calculated to stem its onrush to success turns out to be another part of some subconscious ceremony necessary to that success. As he comes closer and closer to the climax of this oceanside sacrament, it occurs to him that all his wild maneuvering might be re-enactments of childhood frolic: No wonder I'm getting the psychological jitters; why the deuce not? I'm sprinting hell-bent backwards. I'm taking a running jump at the womb. That's all it is. Along with pot hangover.

* Never Cry Wolf

Farley Mowat is a good wolf-watcher.

Never Cry Wolf
Farley Mowat

1963; 176 pp.

\$1.50 postpaid

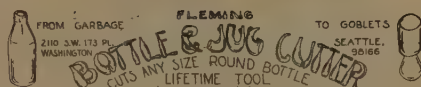
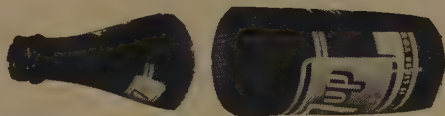
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Quite by accident I had pitched my tent within ten yards of one of the major paths used by the wolves when they were going to, or coming from, their hunting grounds to the westward; and only a few hours after I had taken up residence one of the wolves came back from a trip and discovered me and my tent. He was at the end of a hard night's work and was clearly tired and anxious to go home to bed. He came over a small rise fifty yards from me with his head down, his eyes half-closed, and a preoccupied air about him. Far from being the preternaturally alert and suspicious beast of fiction, this wolf was so self-engrossed that he came straight on to within fifteen yards of me, and might have gone right past the tent without seeing it at all, had I not banged my elbow against the teakettle, making a resounding clank. The wolf's head came up and his eyes opened wide, but he did not stop or falter in his pace. One brief, sidelong glance was all he vouchsafed to me as he continued on his way.

Apart from the fact that there are only a fixed number of homesteads available to the wolves, their abundance is apparently further restricted by a built-in birth-control mechanism. Thus it happens that when food species are abundant (for the wolf population is scanty) bitches give birth to large litters—sometimes as many as eight pups. But if the wolves are too numerous, or food is scarce, the number of pups in a litter may fall to as few as one or two. This is also true of other arctic animals, such as rough-legged hawks. In a year when the small mammal population is high, roughlegs will lay five or six eggs in a clutch; but when mice and lemmings are scarce, they may lay a single egg or they may not breed at all.



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* **The Four-Gated City**

telepathy

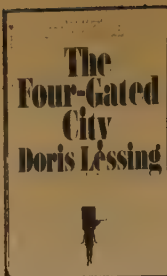
The Four-Gated City

Doris Lessing
1969, 70; 656 pp.

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Bantam Books, Inc.
666 Fifth Avenue
New York, New York 10019

or WHOLE EARTH CATALOG



But even if being nuts from time to time is a part of everyone's life these days it was odd that these highly talented and insightful people were able to take Lynda entirely on the level she chose to present. She was a tall, rather silent, smiling woman, who wore extravagantly beautiful clothes and, invariably, long coloured gloves (very smart, that), and if she departed from her own party for half an hour, to make a telephone call, that was what she was doing; and her look of wide strain . . . well, she had drunk too much, very likely. Yes, certainly Lynda must drink. But then, who didn't?

On one or two occasions, she did not crack so much as fray slightly, and became rather scatty and pattering in speech; but, covering up, Mark and Martha discovered that there was no need to cover up. A discovery not without importance.

* **Let Us Now Praise Famous Men**

of quiet revolution

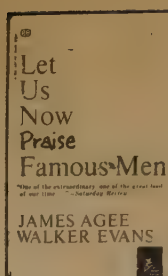
Let Us Now Praise Famous Men

James Agee, Walker Evans
1939, 66; 428 pp.

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101 Fifth Avenue
New York, New York 10003

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We lay on our backs about two feet apart in silence, our eyes open, listening. The land that was under us lay down all around us and its continuance was enormous as if we were chips or matches floated, holding their own by their very minuteness, at a great distance out upon the surface of a tenderly laboring sea. The sky was even larger.

Officially, so far as human beings were concerned; and literally; much of this great surface and space of land had fallen subject to the instruments and ritual actions of human need. Much of it was cultivated for immediate subsistence or for somebody's profit. It was scattered with houses, most of them more like than unlike the house on whose front porch we lay; thinly scattered with houses; much more thinly with towns; very remotely with cities.

* **A Hall of Mirrors**

wusa?

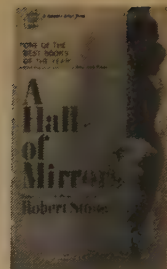
A Hall of Mirrors

Robert Stone
1964, 68, 352 pp.

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from:
Fawcett World Library
67 West 44th Street
New York, New York 10036

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Marvin looked from face to face and stopped at Rheinhardt. "Man," he said, "that wasn't the California you know. No mufflers. No titty-tatty. No ogle bee. No gasoline-smell grease-trap taco stand plastic supermarket shit. No fat woman drive ins. No polite killer cops. No oregano salesmen. No Northbeach. No Southbeach. No Beach Beach. It wasn't like that, man—you think it was?"

"No," Rheinhardt said. "It couldn't have been."
"It couldn't have been," Marvin said soberly. "It could not have been. And it was not."
"It was a California of the mind," the girl said.

"My God," Bogdanovich said stepping forward in wide-eyed astonishment, "what a California that would be!" As they watched, he raised his hands to describe a box and held them palms facing down. "Look," he told them, "that's your mind, dig? And here it's all gray, it's all nowhere, it's just dry and barren and terrible trips. But here, dig—at the western end there's a curving beach and white surf rolling up on it. And there's blue and purple islands and high cold mountains and forests with a carpet of pine needles. And orange juice in the clear desert."

* **Giants in the Earth**

herald's pick

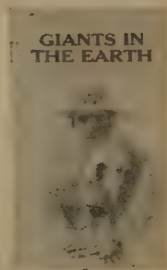
Giants in the Earth

O. E. Rolvaag

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New York, New York 10016

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An endless plain. From Kansas—Illinois, it stretched, far into the Canadian north, God alone knows how far; from the Mississippi River to the western Rockies, miles without number . . . Endless beginningless.

A grey waste . . . an empty silence . . . a boundless cold. Snow fell; snow flew; a universe of nothing but dead whiteness. Blizzards from out of the northwest raged, swooped down and stirred up a greyish-white fury, impenetrable to human eyes. As soon as these monsters tired, storms from the northeast were sure to come, bringing more snow . . . "The Lord have mercy! This is awful!" said the folk, for lack of anything else to say.

Monsterlike the Plain lay there—sucked in her breath one week, and the next week blew it out again. Man she scorned; his works she would not brook . . . She would know, when the time came, how to guard herself and her own against him!

But there was something she did not know. Had it not been for the tiny newcomer, who by mysterious paths had found his way into the settlement on Christmas morning, the monster might have had her way; but the newcomer made a breach in her plans—a vital breach!

* **Sisterhood is Powerful**

free ourselves

—rgm

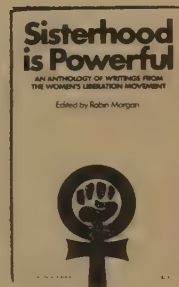
Sisterhood is Powerful

edited by Robin Morgan
1970; 602 pp.

\$2.45 postpaid

from:
Random House Inc.
Random House Building
201 East 50th Street
New York, New York 10022

or WHOLE EARTH CATALOG



I am older than most Movement women, have a harder sense of myself, make a living off my writing and care about it, and have a good, longstanding, and non-possessive relationship with a man I trust politically and personally. It took me two more years of grisly experiences, of getting used and purged, to get my nose well rubbed into women's exploitation, to find out women's liberation was not talking about the other fellow, and to understand how much I had adopted male values to think of liberation as a tool. We are oppressed, and we will achieve our liberation by fighting for it the same as any other oppressed group. Nobody is going to give it to us because we ask, however, eloquently. I once thought that all that was necessary was to make men understand that they would achieve their own liberation, too, by joining in the struggle for women's liberation: but it has come to me to seem a little too much like the chickens trying to educate the chicken farmer. I think of myself as a house nigger who is a slow learner besides. A tendency to believe quite literally in the rhetoric of Movement males is a form of naivete that no woman can afford.





Old Stuff

lots of good stuff in old catalogs too. this is a list of things we still stock in the truck store. letters and numbers refer to big catalogs in which they were reviewed.

-jd

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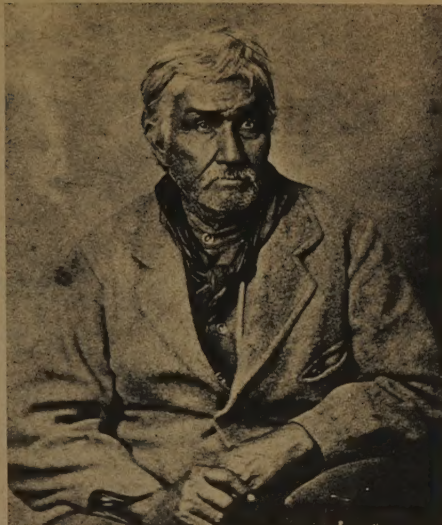
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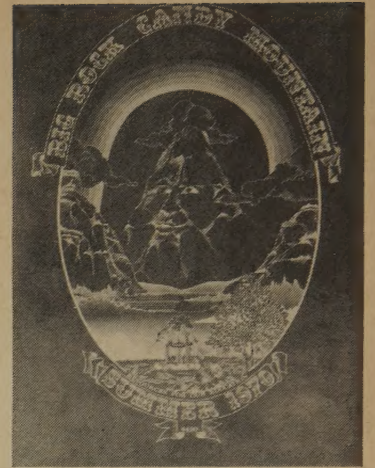
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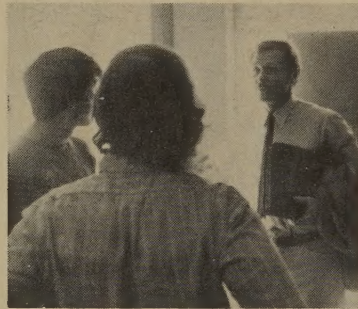
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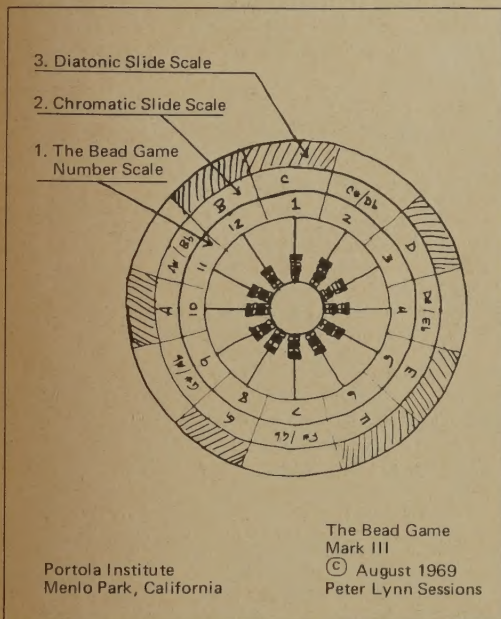
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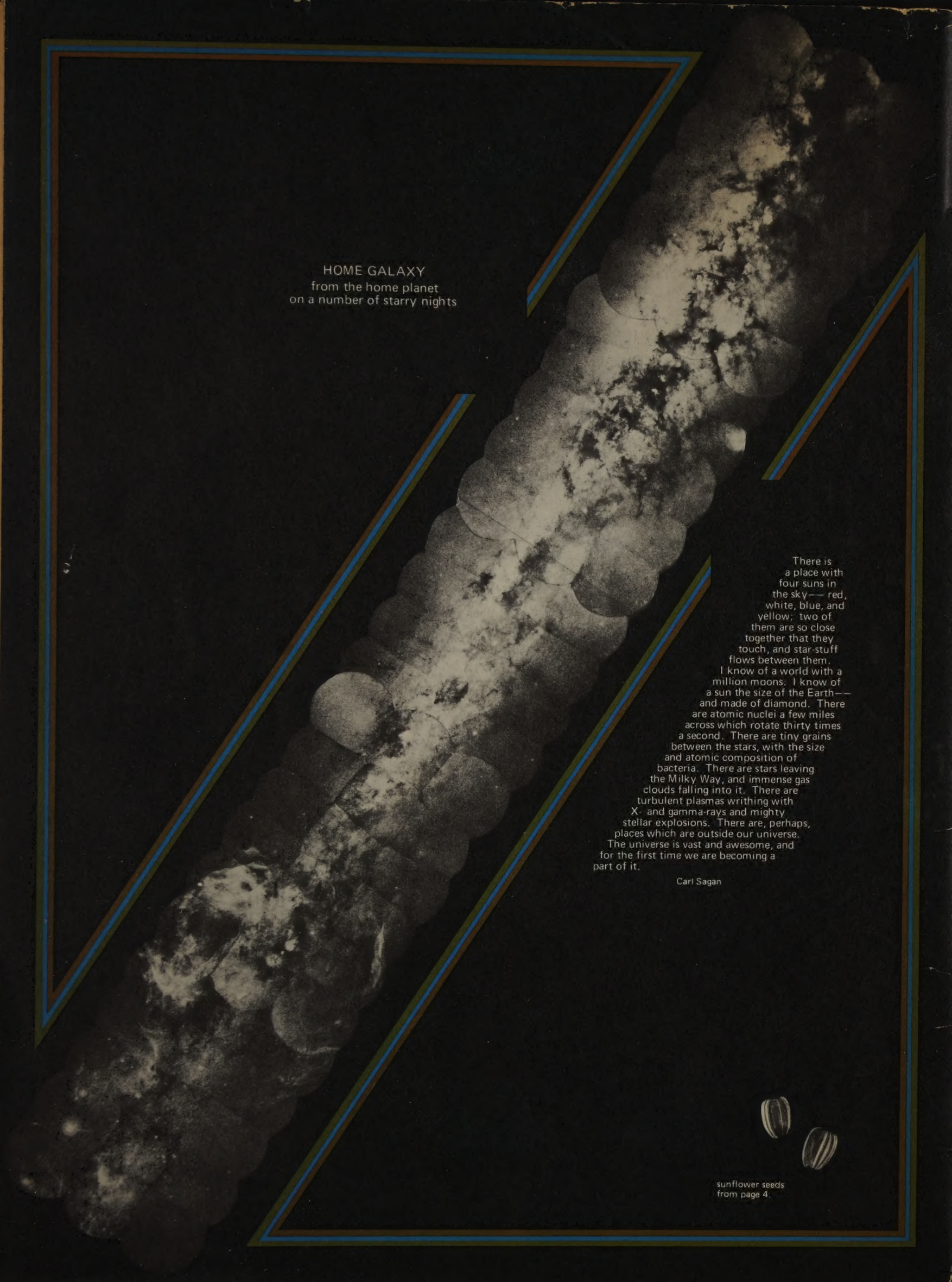
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HOME GALAXY
from the home planet
on a number of starry nights

There is a place with four suns in the sky— red, white, blue, and yellow; two of them are so close together that they touch, and star-stuff flows between them. I know of a world with a million moons. I know of a sun the size of the Earth— and made of diamond. There are atomic nuclei a few miles across which rotate thirty times a second. There are tiny grains between the stars, with the size and atomic composition of bacteria. There are stars leaving the Milky Way, and immense gas clouds falling into it. There are turbulent plasmas writhing with X- and gamma-rays and mighty stellar explosions. There are, perhaps, places which are outside our universe. The universe is vast and awesome, and for the first time we are becoming a part of it.

Carl Sagan



sunflower seeds
from page 4.