


Spring 1983

The Gamut: A Journal of Ideas and Information, No. 09, Spring/Summer 1983

Cleveland State University

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THE CAMUT

A JOURNAL OF IDEAS AND INFORMATION

Number 9

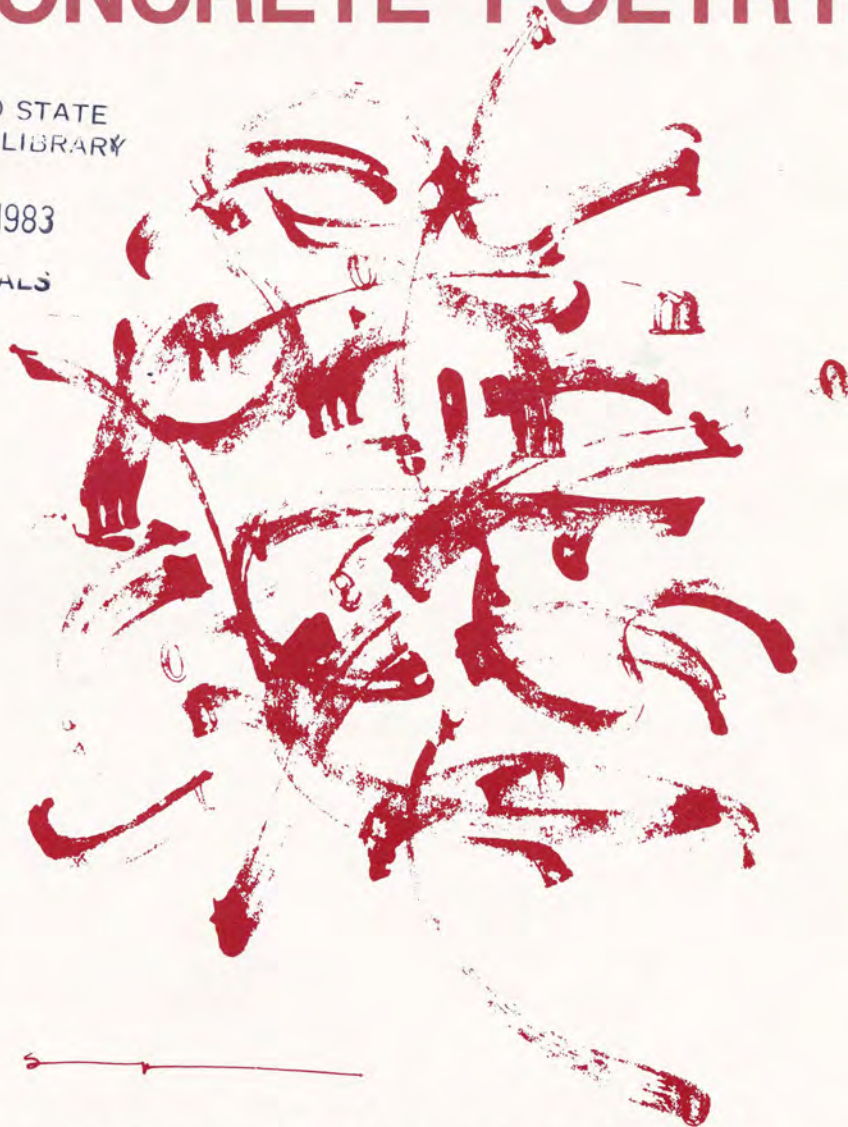
Spring/Summer, 1983

CONCRETE POETRY p. 2

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PERIODICALS



Teenage Runaways p. 32

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Front cover illustration: concrete work by Scott Helmes, first-place winner of *The Gamut's* Concrete Poetry Contest (see pp. 2-30).

THE GAMUT

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The Gamut invites commentaries for its "Back Matter" section and also the submission of new articles and creative works, especially by Ohio writers and artists, on topics of interest to readers of this region. Preliminary inquiries are welcome; detailed information for contributors on request. Submitted material will be returned if accompanied by a stamped, self-addressed envelope.

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Concrete Poetry Contest Winners

First Place

Scott Helmes, St. Paul, Minnesota

karl kempton, Grover City, California

Second Place

Charles Cameron, Malibu, California

K.S. Ernst, Farmingdale, New Jersey

David Cole, Brooklyn, New York

R. Prost, Morton Grove, Illinois

Third Place

Joel Lipman, Toledo, Ohio

Kirk Robertson, Fallon, Nevada

Mark Melnicove, Bowdoinham, Maine

Marilyn Rosenberg, Peekskill, New York

James A. Miller, Cleveland, Ohio

Carolyn Stoloff, New York, N.Y.

Naomi Rachel, Vancouver, British Columbia

Charles Tice, Brooklyn, New York

Judges

John M. Bennett is publisher and editor of *Luna Bisonte Prods*, the imprint under which he issues artists' books, broadsides, and other art and poetry products; he also edits *Lost and Found Times*, a journal of experimental and avant-garde art and writing. Bennett has published over 30 books and chapbooks and has produced three films. His work has been exhibited in a number of cities around the country, and he has won four awards from the Ohio Arts Council.

Perry L. Peterson, a native of Waupaca, Wisconsin, attended the University of Wisconsin-Oshkosh, where he edited the *Wisconsin Review*. Since graduation he has edited *woodrose* magazine, a broadside series, and other poetry and art products. He also writes for *Attunement*, a city-oriented magazine in Madison, Wisconsin. His poetry, art, reviews, and photos have appeared in a number of publications.

Mary Ellen Solt, Professor of Comparative Literature at Indiana University and Director of the Polish Studies Center there, was born and grew up in Iowa and attended Iowa State Teachers College and the State University of Iowa. She edited *Concrete Poetry: A World View* (Bloomington: Indiana University Press, 1968), and has published two books of poetry, *Flowers in Concrete* (Bloomington: Indiana University Press, 1966) and *The Peoplemover 1968: A Demonstration Poem* (Reno: West Coast Poetry Review, 1969). Her concrete poems have been widely anthologized.

The Gamut editorial committee: Leonard M. Trawick, Louis T. Milic, Stephen R. Coleman, and Kate G. Shumaker.



With the support of
the Ohio Arts Council

The Best Concrete Poetry Now Being Produced in America

A year ago *The Gamut* announced its Concrete Poetry Contest, defining a concrete poem as "a unified literary work involving a necessary visual element." As our survey article last year (Issue No. 6, pp. 88-93) pointed out, this hybrid genre goes back to ancient times and has had practitioners in every age; it experienced a world-wide revival in the '50s and '60s. But because little concrete poetry is seen these days except in specialized publications (many of which are referred to in the biographical notes of the judges and contestants), we wondered if the impetus of a decade or two ago had weakened. The response to our contest made clear that a considerable number of poet/artists are still producing fine work in the genre. Over 290 contestants, from 31 states, Canada, and England, submitted entries. Many expressed thanks to *The Gamut* for providing a showcase too rarely available to concretists. In view of the wide representation among the contestants, including many well known names in the field, it seems probable that the selection in the following pages is at least a good sample of the best concrete poetry now being produced in America.

The judges all expressed frustration at having to pass over many excellent works. John Bennett wrote, "I saw an amazing amount of first-rate material." The entries were also amazingly varied. As Mary Ellen Solt ruefully observed, "concrete" is at best a rough-and-ready label for a whole spectrum of art forms ranging from typographical arrangements of what might otherwise be considered traditional poems, to minimalist works consisting of a single word or letter; the "concrete" label includes shaped poems, emblems, rebuses (of which "I ♥ N.Y." is a simple example), collages, and found poems.

The contest winners illustrate this variety. Some of Scott Helmes's pieces, such as "Harsh Language" (p. 5) and the piece reproduced on this issue's cover, almost fail to meet the contest's criterion of being "literary," which implies having semantic content. But these swirling, kinetic letters entice the reader to form words; they are like a primordial alphabet soup in which the letters are on the verge of coagulating into "comet," "phony," and other words. Helmes's other winning piece (p. 6) at first seems to be only a jumble of letters forming an infinite regress of squares to a vanishing point in the middle of the page. But studied carefully, the letters say, "Since you've been away does it matter." The construction suggests the obsession of a lover whose thoughts cannot progress because they return over and over to the beloved's absence and the speaker's consequent despair. As contest judge Perry Peterson commented, this poem combines words and images "in such a way that we come about as close to the artist's inspiration as we can get . . . We don't simply look at it. We experience it, right down to the sound."

Most poets and critics agree that the best poetry leaves much unsaid: it forces the reader's imagination into active participation through suggestiveness and sometimes through intentional obscurity. Helmes's works do this, as do, in varying degrees, the other contest winners. In a minimalist vein, R. Prost (p. 22) juxtaposes two ordinary phrases, "into the light" and "afterthought" in an ambivalent way so as to stimulate our thoughts in several directions and keep them resonating long after we first "read" this disarmingly simple poem. There is a visual ambiguity: is "afterthought" on a torn scrap of paper placed over "into the light," or is it seen through a hole torn in the other sheet of paper? This visual ambiguity parallels a semantic one: does the "afterthought" come after we look or move "into the light," or is "into the light" an afterthought? Even the type face is suggestive: the formal but graceful calligraphic capitals might appear on, say, a church poster, whereas the heavy lowercase italics have the insistence of a used-car ad. Is afterthought more worldly than a trip into the light? Prost's work teases us into thought. K.S. Ernst's "Towering Negativism" (p. 17) is another minimalist work, the original of which is, if not literally concrete, at least solidly three-dimensional.

karl kempton's first-prize-winning poem (pp. 7-16) is also at first glance simple — a series of shaped poems each giving a sort of picture of a word or words: *chain*, *spin*, *coil*, *link/klink*, *warp*, *twist*, *jump/skip/flip/leap*, *twist* again, and *12 knots per hour* (a rebus). kempton's chosen medium, the typewriter, imposes formal limitations on his work, and the judges were impressed by the elegance of his craftsmanship. The choice of words is not random; all are related to turning or binding, except *jump/skip/flip/leap*, which describe sudden moments of freedom. The

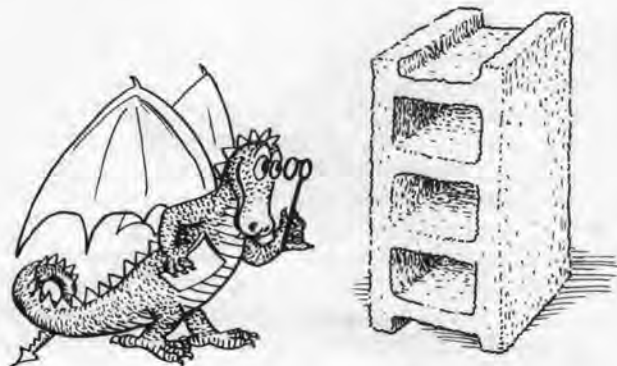
title piece is different from the rest; it spells the word "poem" twice in an isometric rendering of a three-dimensional box, as if to imply that a poem is a container (but one "poem" extends beyond the box, perhaps suggesting that a poem is greater than its literal contents). Indeed, all ten designs of kempton's piece taken together could be considered a description of a poem: binding with formal restrictions, yet also making connections; twisting the reader's mind in new directions, and eventually liberating it with a leap. The last design speeds off in a pun — a poem ties knots (in both senses of restricting and connecting), and it also sails along freely like a ship.

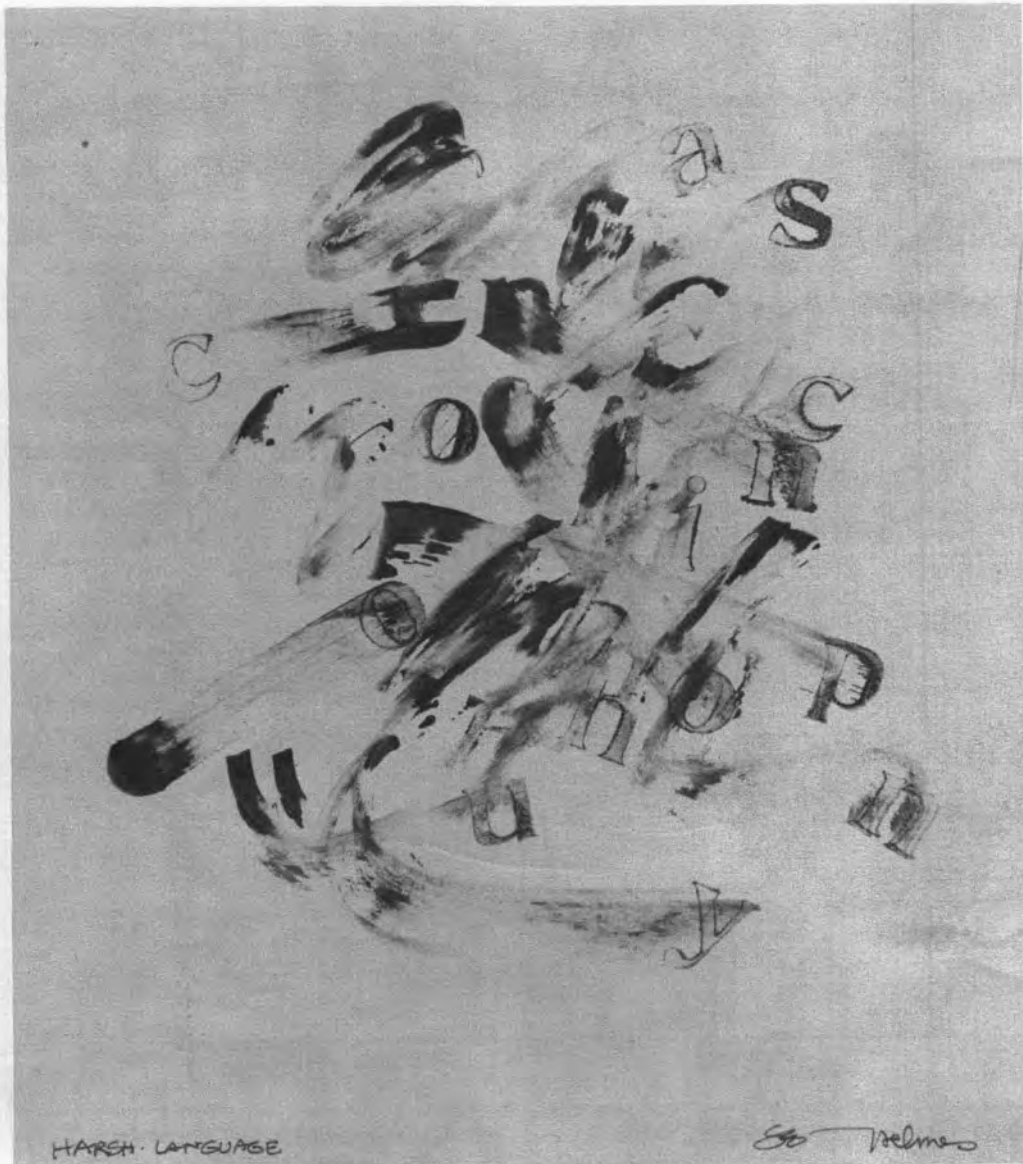
At the opposite end of the spectrum from Helmes, kempton, Prost, and Ernst are the contest winners who are more purely literary. Charles Cameron's poem about a mermaid (p. 19) arranges lines and phrases visually for emphasis and "punctuation," in the manner of e.e. cummings. James Miller (p. 25) leads the reader through his poem like a maze, with little bonuses along the way when the typography echoes the meaning. Allen Tice (p. 30) has devised a "magic square" that is not only verbally clever but that also makes a wry comment on "the news." Naomi Rachel, with her witty reverse dismantling of "revolution," illustrates how much suggestiveness can be squeezed out of a single word.

Joel Lipman, Mark Melnicove, and Carolyn Stoloff use techniques of the found poem and collage. This sort of work depends upon an imaginative eye — the ability to spot the potential treasure amidst the verbal and visual garbage that constantly passes under our eyes. Lipman (p. 23) takes an actual page from an old boy's adventure story, *Rex Lee on the Border Patrol*, and overprints it with resonant phrases. Melnicove (p. 24) also starts with an existing page; he creates by selective elimination. And Stoloff (p. 29) places banal phrases from ads in an unexpected pictorial context to convey in an affecting way a feeling about the relation of natural beauty to industrial technology.

David Cole, Kirk Robertson, and Marilyn Rosenberg, like Stoloff, produce significant art by juxtaposing words and pictures, but they draw their own pictures. Cole (pp. 20-21) is represented by a few pages from a book-length work using his drawings, typographical arrangements, and puns in a way that keeps seeming *almost* to make sense, and hence keeps the reader pondering. Robertson (p. 28) draws lines and arrows to make a parody of a scientific diagram. And Rosenberg (p. 27) disposes words provocatively in her own designs, where often a blank area means as much as occupied space.

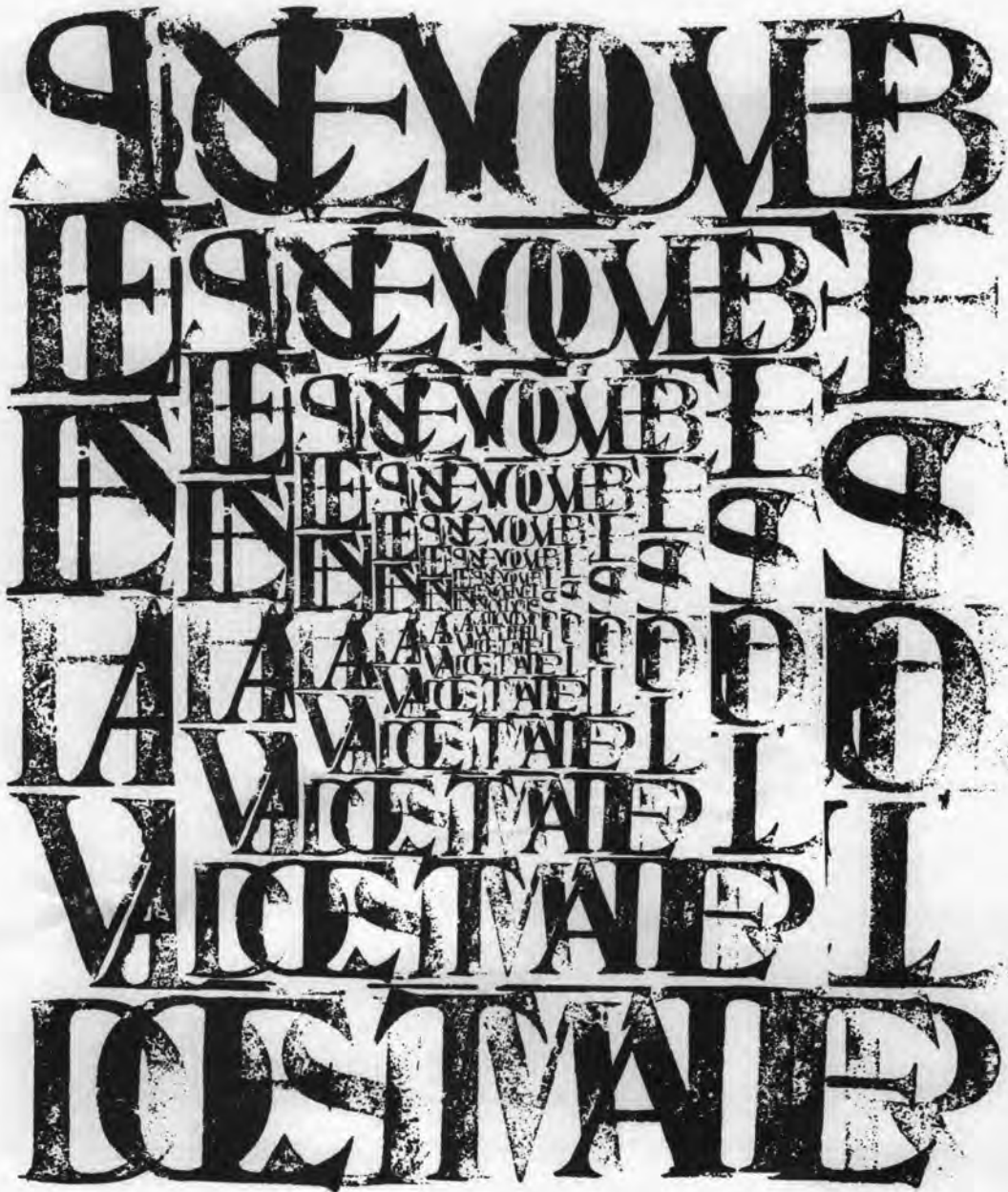
As usual, *The Gamut* provides some biographical information and commentary by the authors along with their works. From these personal notes, the uninitiated reader may infer something of the spirit in which the concrete poets approach their creations. If they sometimes seem obscure, they are not intimidatingly so. For the most part they regard their own works in the way the deconstructionist critics of the past decade have approached other literature: not so much as canonical texts each with a cryptic "message" to be discovered by the reader, but rather (to paraphrase Paul Valéry) as machines for producing aesthetic experience. The works on the following pages are successful because, like all good art, they give pleasure and stimulate the imagination.

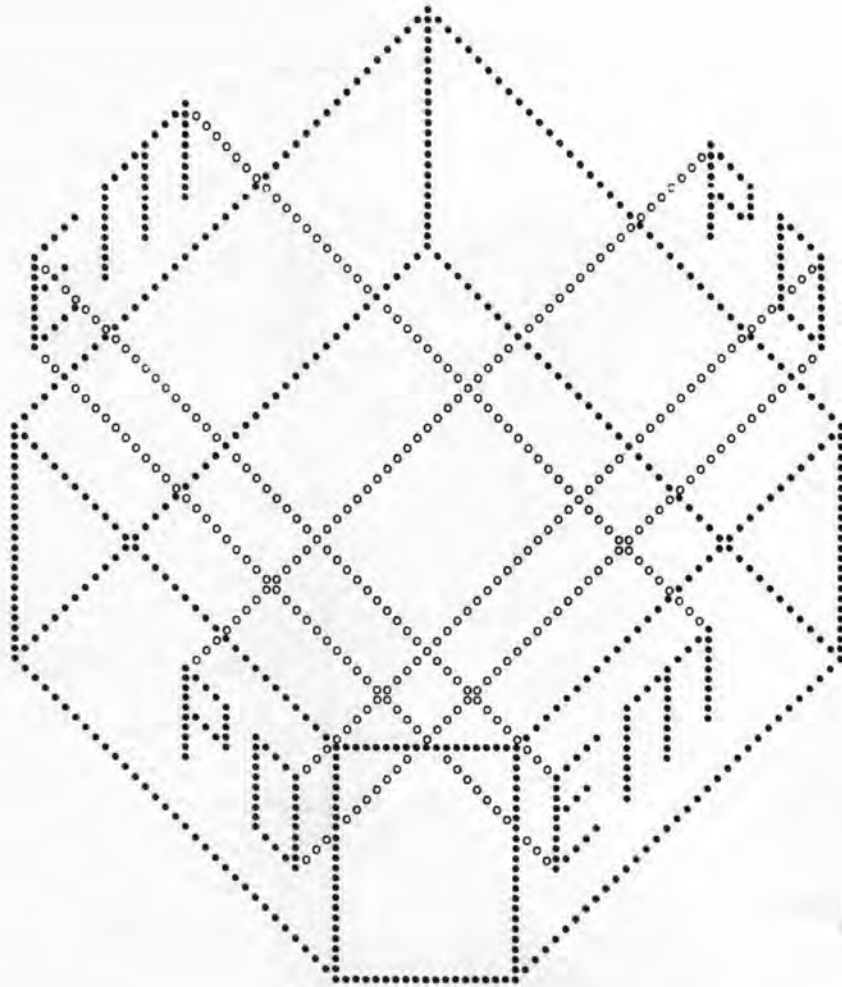




Scott Helmes was born at Fort Snelling, Minnesota, grew up in Mahtomedi, Minnesota, and received a Bachelor of Architecture degree from the University of Minnesota in 1968. He now lives in St. Paul, works as an architect in Minneapolis, and spends his free time sailing in his C scow. His work has appeared in the *Paris Review*, *Tam-Tam*, *kaldron*, *Interstate*, *NRG*, *Assembling*, *O.ars*, *Invisible City*, *Laughing Bear*, *Konglomerati*, *O*, *White Walls*, and *Lost & Found Times*.



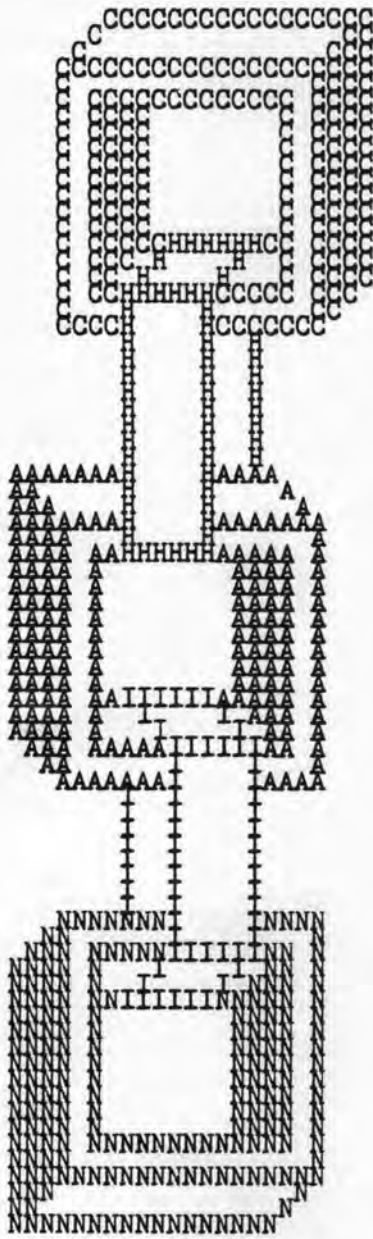


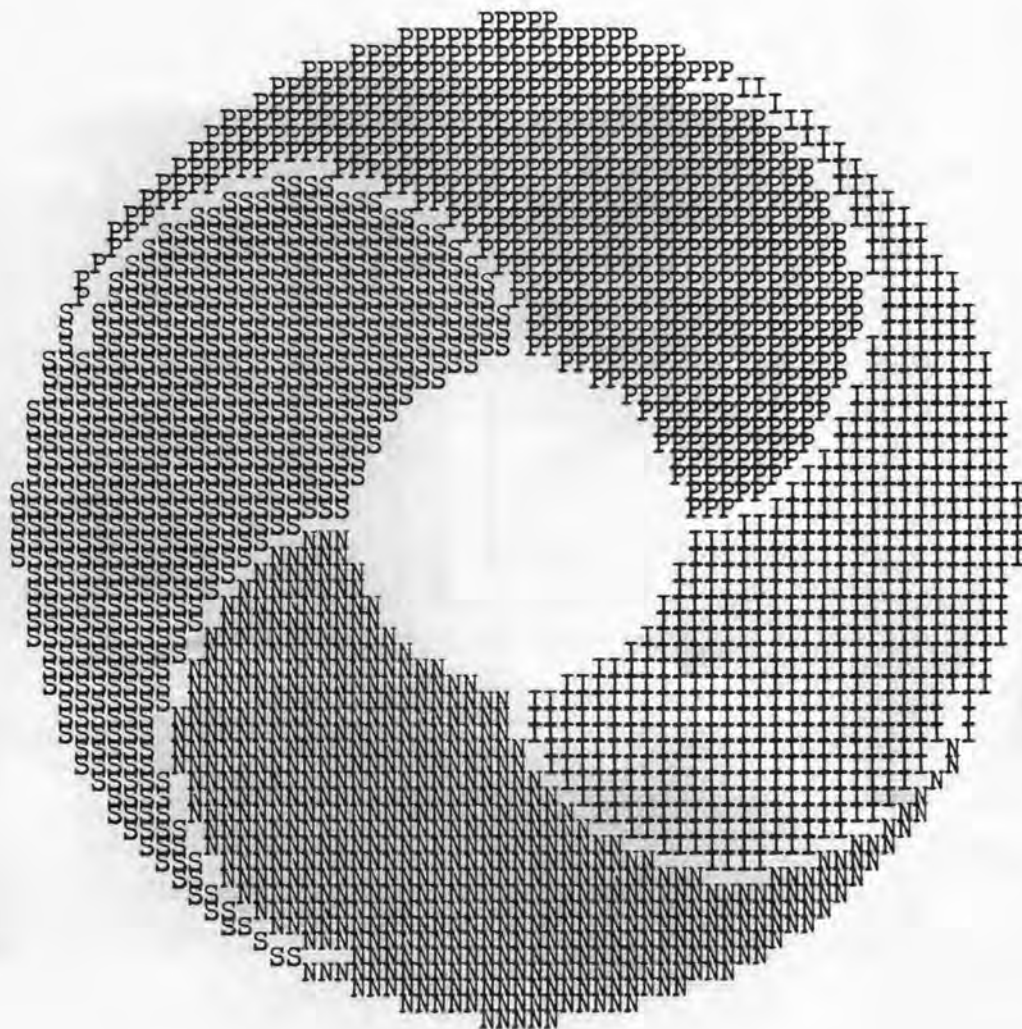


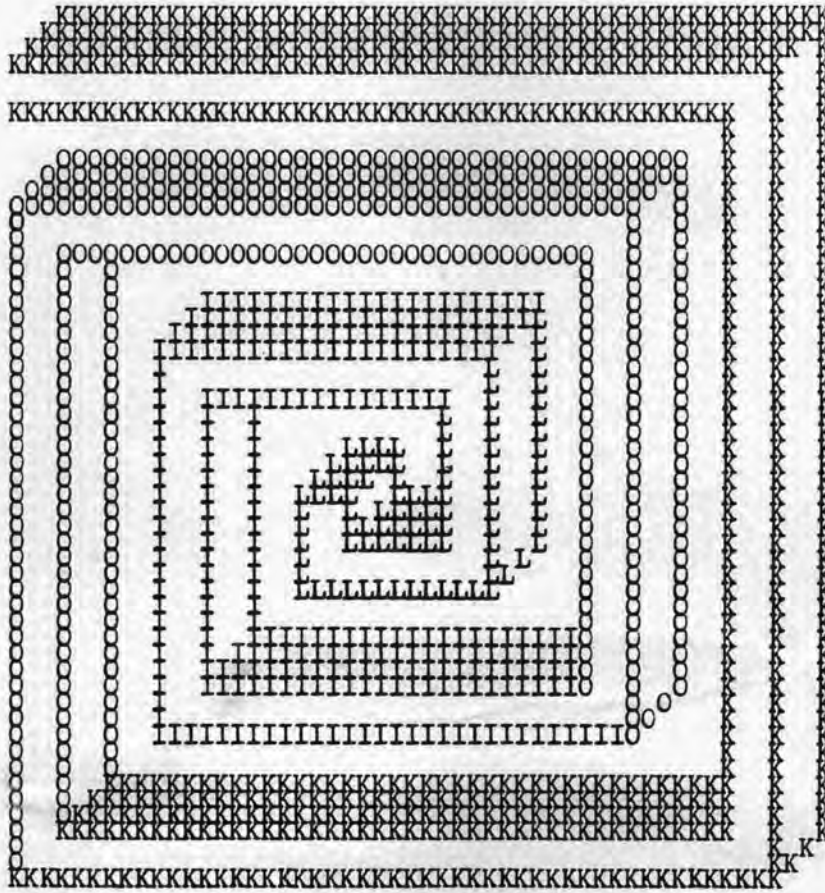
karl kempton, editor and publisher of *kaldron*, an international journal of visual poetry and language art, received a B.S. from the University of Utah in Salt Lake City, with a major in economics and emphasis in statistics, and minors in mathematics and history. He then attended graduate school at the same University, in economics and Middle Eastern studies. He has worked as a furniture deliverer, factory worker, janitor, statistician for Douglas Aircraft, cabinetmaker, labor economist and statistician, teacher, and archaeological technician, and currently lists himself as self-employed poet, visual poet, editor, and publisher. Author or co-author of more than a dozen books (mostly concrete or visual works), he has had visual poems or "typoglyphs" published in over seventy-five publications, and his work has appeared in more than eighty exhibitions in eighteen countries (nine of them one-person shows). Asked for a statement about his work, he writes: "my views r in constant motion since they r but opinion. what has not changed is that i view myself as merely a vessel thru which our language expresses itself in its particular accents of visualization. my work has nothing to do with the computer; i work with a typewriter. any similarity is genetic."

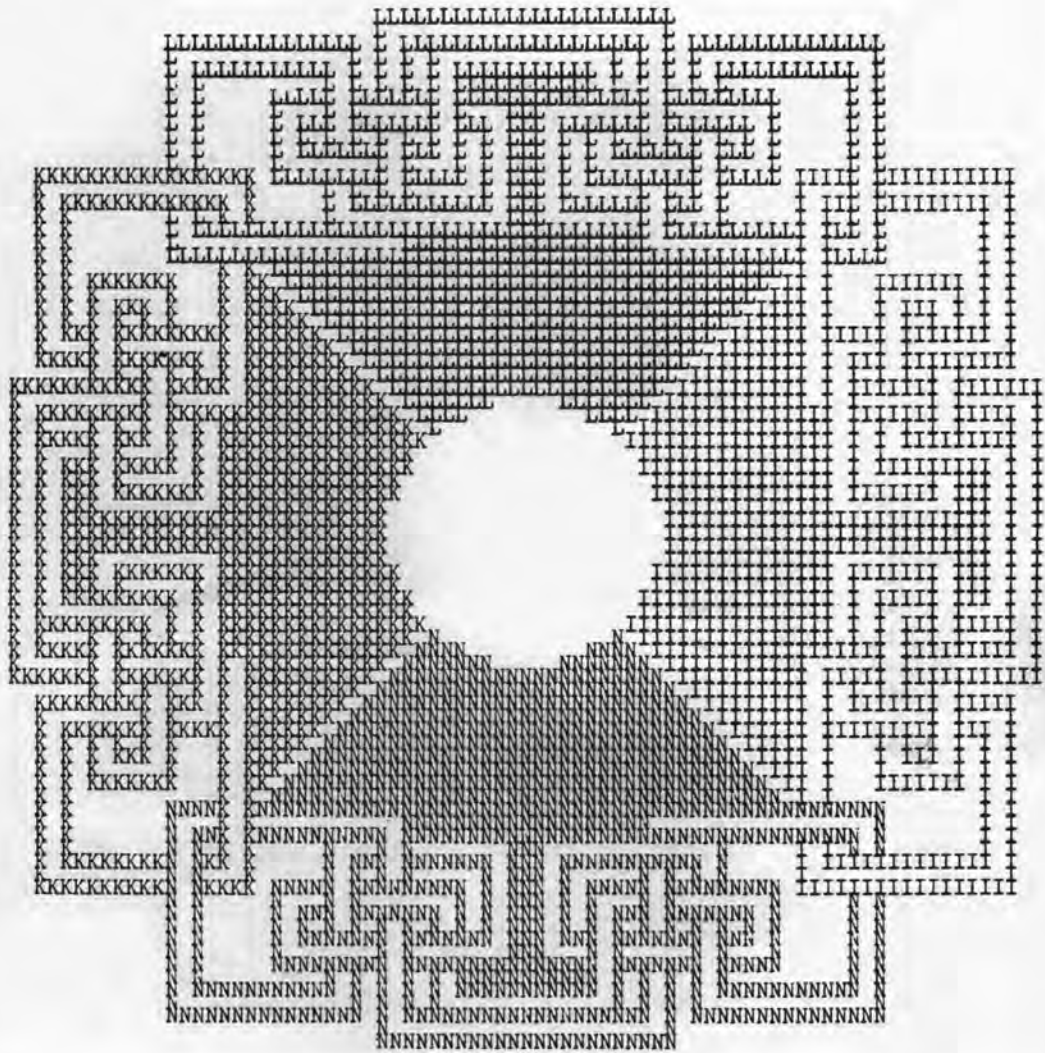
Kempton's *POEM #3: to tie knots* is printed in its entirety here for the first time; some of the individual typoglyphs have previously appeared, however, in the following publications: *Bogg* (U.S.A. and England), *Dismisura* (Italy), *Fly By Night*, *Interstate*, *kaldron*, *Lightworks*, *O. ars*, *Scree*, *Truly Fine Press*.

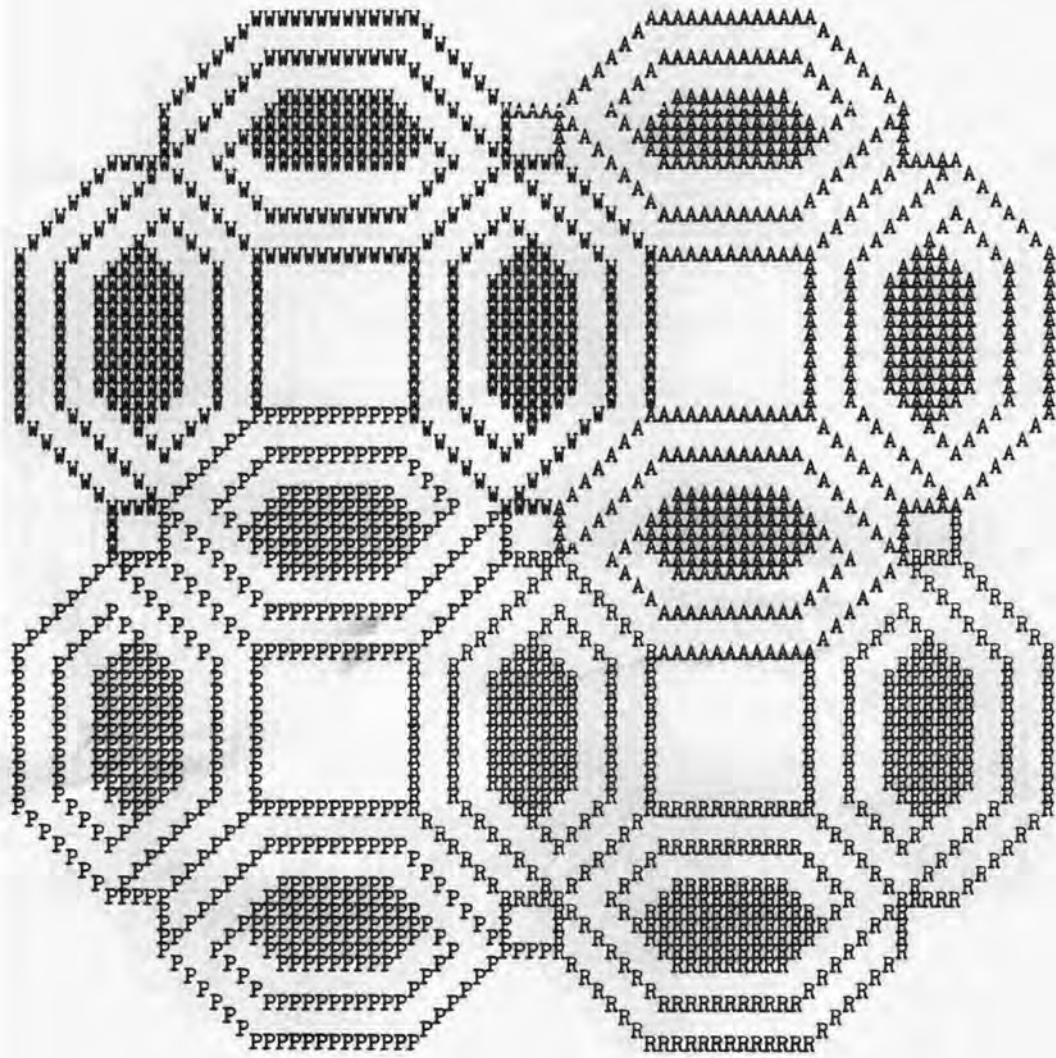


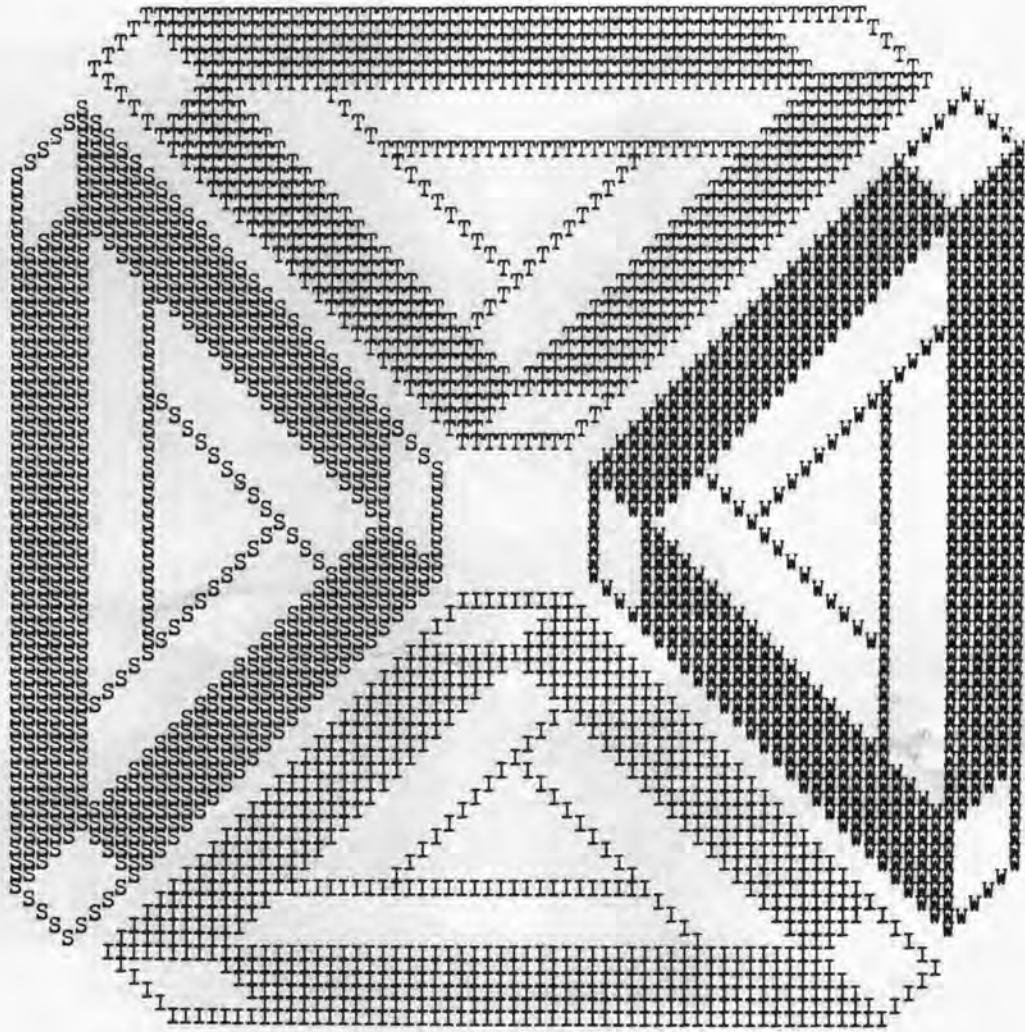


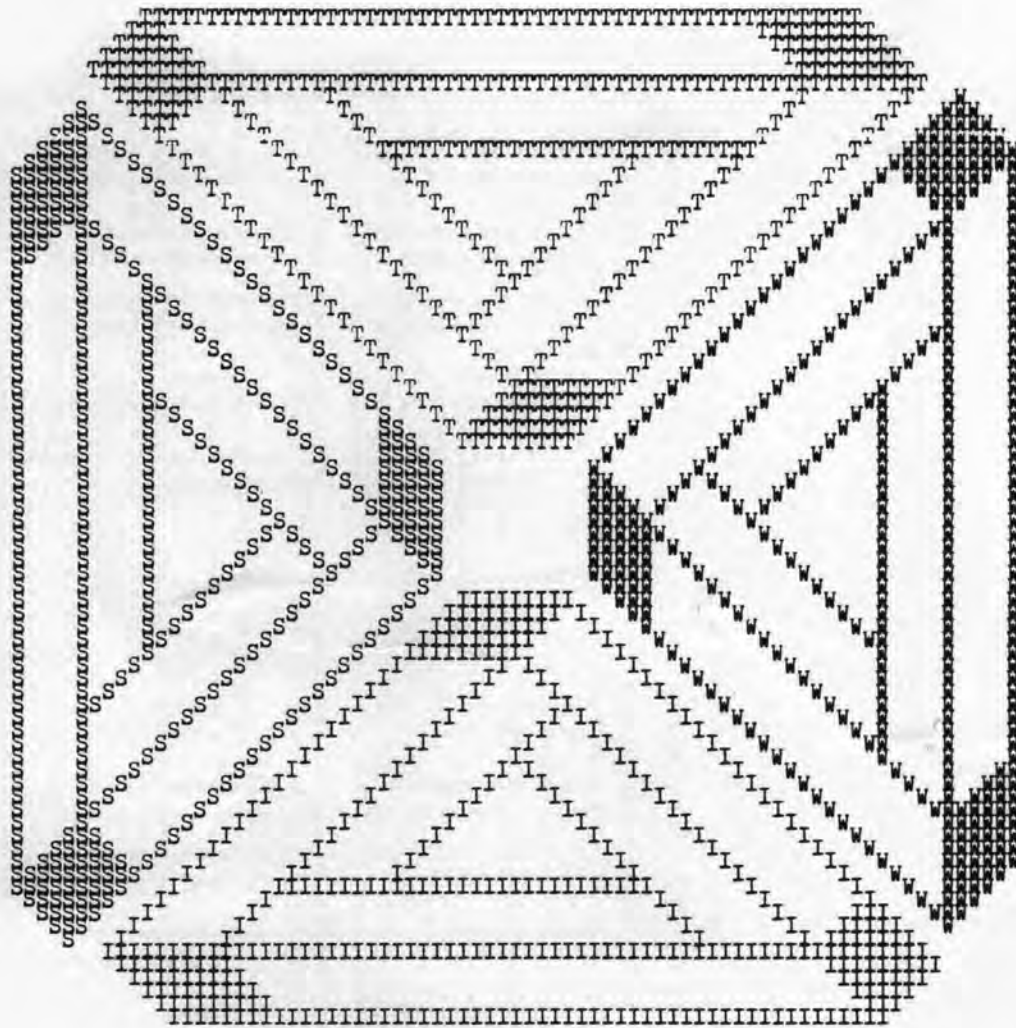


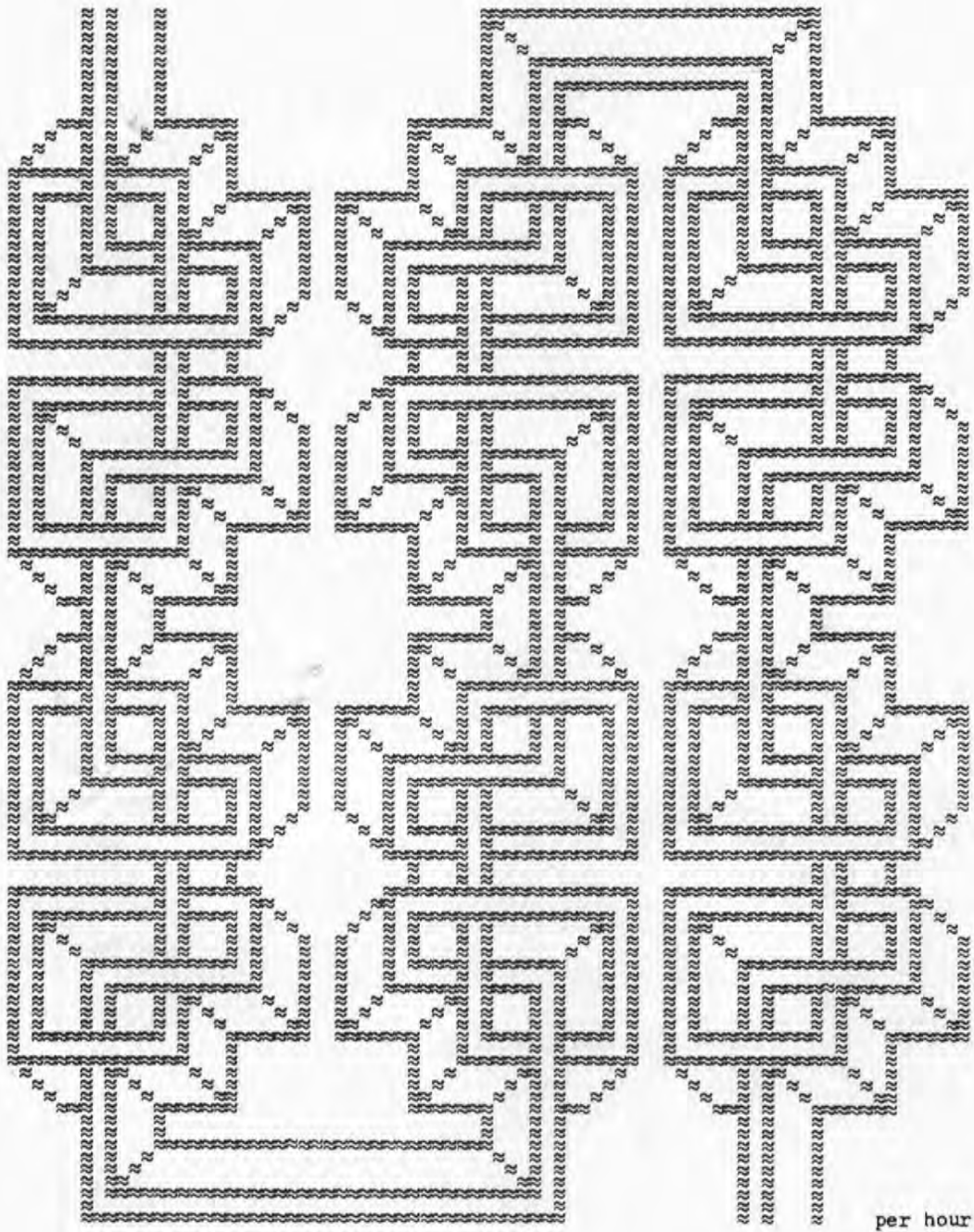




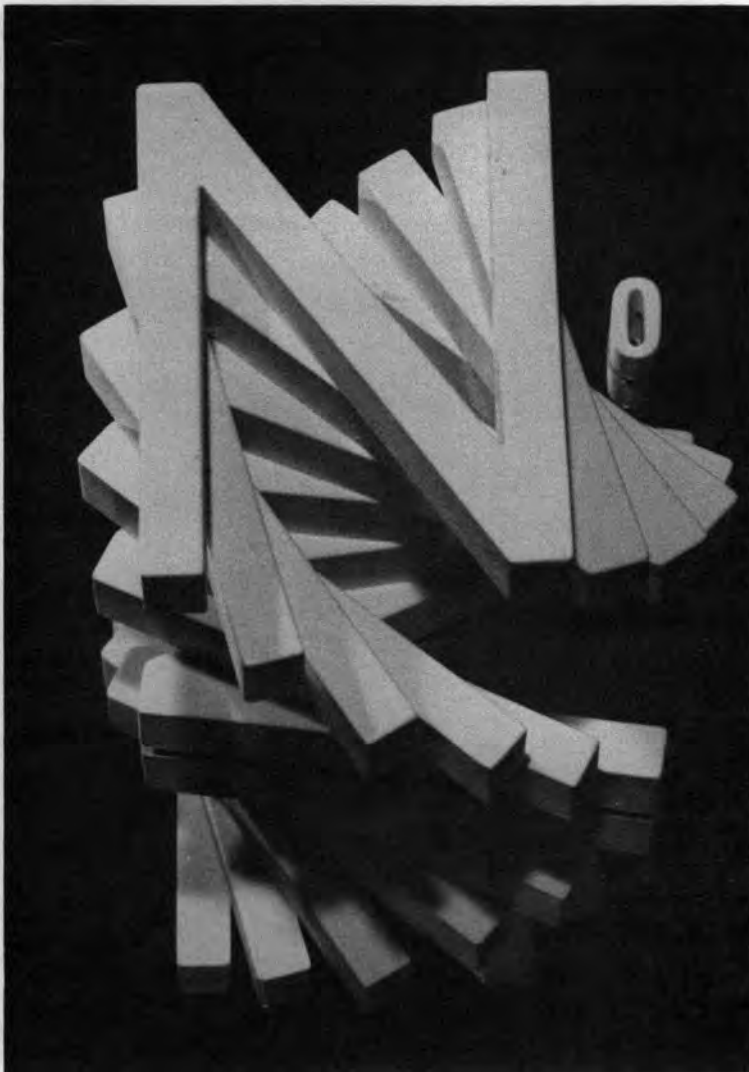








Towering Negativism



K.S. Ernst gives this account of her life and works: I was born and grew most of the way up in St. Louis, Mo. I graduated from college with a B.S. in chemistry, to my great surprise, as my interests would classify me as more of a poet/pilot/photographer.

At the moment I am working full time as editor and chief silk-screener of *PRESS ME CLOSE*, a press devoted entirely to concrete poetry. We feature a line of concrete T shirts with work by many artists, including some of the winners of *The Gamut* contest. We also publish *Place Stamp Here*, a concrete poetry magazine that appears twice a year on fine quality post-cards. Our catalog is available on request.

Looking at my work, I would have to say that my role as a poet is to remind people that words are only symbols for what they represent. Perhaps that's why I prefer to do my pieces in three dimensions, although I do some concrete poetry on paper and write some "regular" poetry as well. My sculptural pieces range in size from rather small to 7 or 8 feet high. I also do wall hangings and mobiles. Out in my barn I'm working on a maze-environment piece that people can actually walk through. A four dimensional concrete piece — that is, a sculpture that will change what it says (what it is) while you are watching it — is on the drawing board.

A book of my work will be out later this year.





Charles Cameron provides the following biographical/literary statement: I was born in England in 1943, and educated at Oxford. I was first nudged into the writing of poems by Dom Sylvester Houedard, dean of British concretists, some time around 1964. And while we're on the subject, this seems an appropriate moment to salute other concretely oriented friends from the middle sixties: among them the English painter John Furnival, and the Austrian soundpoet Ernst Jandl.

If England provided early soil and nourishment, America offers me a wide sky in which to flourish. I live in Pasadena, CA, make my living writing holistic health materials, and am co-authoring a book on high blood pressure for Doubleday.

Though not a Quaker myself, I love the silence of their meetings, and feel that a good test of poetry would be its ability to fly in that silence without disturbing the Friends.

She is a plague to us fishers,
 against whom we cast silver coin
 into the brine. She
 is green?

have you seen her
 under water?
 seen how ripples dis
 tort?
 port?
 con
 tort her
 limbs?

green?
 she is
 sub
 have you seen?
 sub marine?
 acqua
 marine her
 limbs?

slim?
 she is?
 she is a sliver?
 slip?
 silvery fish
 plash spray
 flying

from under
 water?
 her eyes
 flash?
 hair
 dries

green?
 weed
 sea mur
 wait
 mur
 mer
 waist?
 mer maid,
 her breasts,
 fish
 tail silvery
 scale

green?
 she is drown
 green?

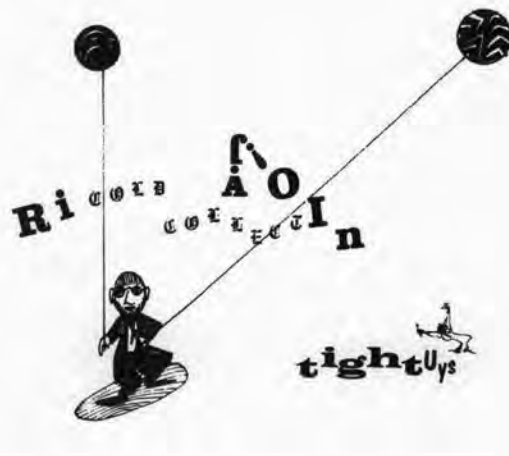
And if we make it to coast, we
 talk less tonight, toss a fistful
 of copper coin down on the bar
 against bottles of hard red wine.

4th RAT 2nd



fi pqr rssiSTANTHS T F
OHIOSPLITPOMMEZOUPI, SÄNDER HUMPY

INCENTIVE TIMBER TIME & ... walking ZZ



David Cole writes: I was born Dec. 27, 1939 in Charleston, S.C., but moved rapidly to Boston, to Seattle, to London, to Washington D.C., to Seattle again and settled at Princeton for a B.A. in philosophy in 1961; completed Ph.D. in literature at Brandeis in 1970, with a dissertation on William Empson. Taught college English for 12 years, 1963-75. Studied natural sound, theater games, & holography. Began an artist-run gallery, Henry Hicks, in Brooklyn 1975. Curated, with Roger Erickson, *The Concrete Poetry Show*, at H.H. in 1975. Began writing concrete & visual poetry; artists' books, book sculpture, book performance, mail art; edited *Assemblings 10 & 11*; now edit MC, with Paul Zelevansky. Began *Paumonock Traveller*, a 10 year art project connected with my local position as visual poet living in Walt Whitman's idyllic Paumonock, in 1980. I have made about 25 books incorporating lyrical bits of this epic. My role as a poet is to witness to a prophecy & with grace to clarify.



David Cole's entry to the contest was an accordion-like scroll folded into 60 pages, 7 1/2 inches by 7 inches, and bound between stiff covers (pictured below). We reproduce here four double pages (15" x 7"), reduced to 38% original size.



INTO THE NIGHT

afterthought



R. Prost: I was born and raised in Chicago. After pursuing several undergraduate majors, I took an M.A. in Medieval literature. My work has appeared in numerous magazines, including *Unmuzzled Ox*, *Interstate*, *Wormwood Review*, *kaldron*, *New Poetry* (Sydney, Australia), *Ambit* (London, England), *Sphinx* (Beaugency, France), *Tam Tam* (Parma, Italy), and *New Tendencies* (Posnan, Poland). My poems have been included in international exhibitions of visual and concrete poetry in the United States, England, Belgium, West Germany, Poland, Brazil, Italy, Holland, and Greece. I have published 3 chapbooks (*The Fragments: Series I, Six Poems*, and 17) and, recently, *The Book of Glyphs*.

My work is primarily literary. Though there is often a large visual component, the visual component functions as a support structure to the literary aspect. Words carry with them their baggage of images, metaphors, associations, memories, connotations, etc. It is in this bundle that the mechanism of the poem can be found. Language is put into new circumstances to see how it responds and, thus, to see how it operates. My poems are generally simply constructed, clean, visually uncluttered. There is always the conscious effort to entice the eye without confusing it.

~~we describe the board as a cloud of elementary particles (for
 H-nuclei these are Newtonian elementary particles) and imagine
 its position and velocity at some arbitrary time t_0 of each one. We
 do this in a similar way. (Say the board is 'cloud B' and the peg is
 we describe the round hole as 'region 1' and the square hole as
 say that by a heroic feat of calculation we succeed in proving that
 through 'region 2', but not through 'region 1'. Have we explained~~

~~that whatever the pragmatic constraints on explanation may or may
 not be, it is surely this: That the relevant features of a situation should
 be in an explanation and not buried in a mass of irrelevant information.
 It is now clear that the first explanation — the one that points out that
 objects are approximately rigid and that one of the two holes is big
 and the other is not — explains why 'cloud A' passes through
 the first hole, while the second — the deduction of the fact
 from the positions and velocities of the elementary particles, their
 masses and repulsions, etc. — fails to explain
 what is intuitively obvious for two reasons, I think. (1) We have been taught
 that a phenomenon in this way is to explain it. But this is ridiculous on the
 face of it. (2) I deduce a fact F from G and I, where G is a genuine explanation
 of F and I is irrelevant. Is G and I an explanation of F? Normally we would
 say 'yes, because G is an explanation'. Now, suppose I subject the statement
 to a series of mathematical transformations so as to produce a statement II which is mathe-
 matically equivalent to G (in a complicated way) but such that it~~

~~something which
 through one hole
 these macro objects
 around and the
 consist of atoms
 rigid body, etc
 information (why
 relevant informat
 size and shape
 board consist of
 peg goes through
 this explains that
 The relation b
 'pass' of an ob
 irrelevant to wh
 which is relevant,
 concern a partic
 What follows
 microstructure is
 bodies can be
 geometry as in
 rigid. A more
 features which
 nature of the~~



Mark Melnicove, asked for a "head-and-shoulders" photograph of himself, provided the picture at the left. He also sent the following account of himself and his work: Mark Melnicove was born in Washington, D.C., on June 2, 1952. During the final stage of his mother's labor his left collar bone was broken. In order to heal he had to remain on his back for his first six weeks out in the world, which gave him plenty of time to think about things such as pain, birth, and immortality. These early thoughts, it is rumored, are the basis for everything he's done since.

Failing in his ambition to become centerfielder for the Yankees, he became a concrete poet instead. His cross-out technique is an effort to recycle old texts into new (the compost theory of literature). The technique is something he picked up from shopping in supermarkets where, to find any real food, one has to cross out (blot out, ignore) 99.99% of the messages (visual, verbal, tactile, etc.) coming one's way.

Since 1979, he has published over fifteen books under the Dog Ear Press imprint. He also developed one of the country's few regional co-op book distribution services for the Maine Writers to Publishers Alliance.

He has lived in structures such as a log cabin, a yurt, a trailer, and a garage. He has worked as a radio producer, teacher, offset camera-man, potato-digger, and carpenter. He and Bern Porter do performance poetry as The Eternal Poetry Festival. For them, poetry is a 24-hour, 7-day-a-week, 365-day-a-year phenomenon which has never been successfully divided from any other human (or animal or plant) language communication, behavior, or act of doing (or not doing). It is all-pervasive and, quite frankly, inexplicable.

NOITULOVER

no
no it
no it u
no it u love
no it u lover

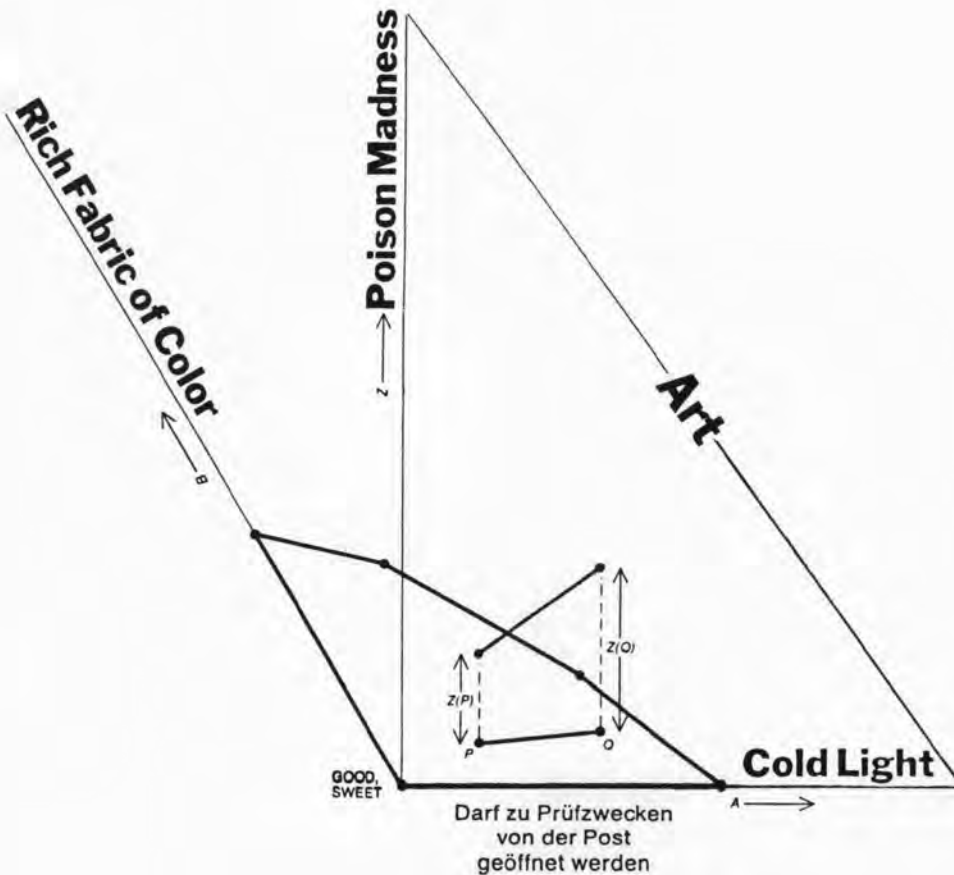
REVOLUTION

Naomi Rachel was born and raised in California. Her “very mobile education” culminated in a Master’s degree in creative writing/English from San Francisco State University. Her works have recently appeared in the *Massachusetts Review*, *Nimrod*, *Denver Quarterly*, *Canadian Literature*, *Portland Review*, *Hampden Sydney Poetry Review*, and *Kansas Quarterly*. Her personal statement continues: “Until recently, taught at the University of British Columbia, currently up to ears (literally) in concrete due to building a very visual house. Preparing to move to another life farther north.

“Enjoy concrete poetry because of its humor and its attempt to be to literature what sculpture is to the visual arts—a way of moving beyond the flat sheet.”



Essay



Kirk Robertson sends the following information: Kirk Robertson was born in 1946 in Los Angeles; graduated from California State University at Long Beach in literature in 1971. He has published 13 collections of poetry, most recently *West Nevada Waltz* (Turkey Press, 1981) and *Reasons and Methods* with typoglyphs by Karl Kempton (Rainbow Resin/Duck Down, 1981). A new chapbook, *Two Weeks Off*, is forthcoming from Floating Island Publications. The piece which appears in *The Gamut* is from a manuscript entitled *art-i-facts*. He is founder/editor/publisher of *Scree* magazine and Duck Down Press and in 1982 joined the permanent poetry staff of the Squaw Valley Community of Writers. His visual work has been shown at a number of places including Open Ring Gallery, Church Fine Arts Gallery (UNR), and the Sierra Nevada Museum of Art. He lives in Fallon, Nevada with his wife and two sons and is currently at work on a collaborative book with Larry Hurst, a painter from Los Angeles.





Carolyn Stoloff makes these comments about her poem: This cut-up poem is part of an as yet unpublished collection begun in 1967, called *What Can I Ad.* Each cut-up is made from words cut out of ads in one issue of a magazine or newspaper. Though I don't have a goal in mind as I work, it turns out that the poems almost always comment in an interesting, sometimes meaningful, sometimes amusing, way on the thrust of the magazine or the subject heading of the section of newspaper.

I like to use a scissors. I enjoy the variety of type. I find handling words, moving them around, stimulating. Each type face has a different emotional charge. Size makes a word shout or whisper. I like the challenge of having to make-do with few verbs . . . making nouns work as verbs. In short it's both fun and serious, like all intensely absorbing games.

And Now The News

W h e r e n o w h o w h a t
 H e r e n o w h o w h a t h
 E r e n o w h o w h a t h e
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Allen Tice was born in Washington, D.C. and grew up there and in Oakland, California, where he wrote his first poem at the age of seven years under the influence of Carl Sandburg. He still rather likes it. In a D.C. high school he was made to scan the entire twelve books of the *Aeneid* of Virgil inch by inch in Latin dactyls by the six-pack, and has become a far, far better man for that reason. His B.A. in English is from Goshen College in Indiana. At that time he obtained a Woodrow Wilson Fellowship which he used to study legends and primitive religion at Indiana University's Folklore Institute, and received an M.A. After teaching college for a while, he moved to New York City and gained a Master's degree in psychology from New York University. He teaches in a fine New York City high school. His personal statement continues:

"I have only recently begun publishing again after evolving through a variety of styles. But I have always felt that the backbone of a poem for me is the auditory effect it has that impresses it firmly upon the mind. This is true even in my directly visual concrete poetry, where the entire sound

mosaic alters every time the reader sees and subvocalizes the word breaks differently. I desire my concrete poetry to be as interesting as possible for a translator to attempt.

"Speechless poetry for me is deadly dull, and has the lesser qualities of mathematics, advertising posters, or bad diary writing. I want to be pleased by reading a poem aloud, as well as pleased by its other beauties or challenges. My mind likes to dance and poetry is its ballroom. Poetry can be immediate and unforgettable — is translatable — may be most durable."

Martin Hiller

Safe Space Station: Helping Hand for Troubled Teen-Agers

She is dressed like many other high-school students, in slightly worn jeans and sneakers, a patterned, long-sleeved blouse and nondescript jacket. She carries a social studies reader and a loose-leaf notebook. Except for the fact that she is alone in an area widely regarded as unsafe for lone women — Euclid Avenue, east of University Circle — there is nothing about her which would tell you that Janet' is running away from home.

Still, Janet is walking with apparent purpose toward a renovated commercial structure which formerly housed a lawn mower repair shop and a U-Haul truck rental. The address is 12321 Euclid Avenue, and the sign identifies this building as Safe Space Station. It is a temporary shelter for runaway and homeless youth.

It is Monday, 4:30 p.m.; the door is never locked at this time. As Janet steps inside, she begins the "crisis intervention" process by which most youth shelters operate. The counselor to whom Janet will be assigned will try to identify her problem and help her work out a constructive solution, typically with her family; the counselor also works with any other institutions that may be involved in helping her, such as the Juvenile Court or the County Welfare Department.

Safe Space Station

Safe Space Station is easily reached and highly visible, on one of Cleveland's major traffic arteries, about a hundred yards east of the Coltman Rapid Transit Station. Less than a mile to the west are Case Western Reserve University and the other cultural institutions of University Circle. More important, almost next door is the Free Medical Clinic of Greater Cleveland, which provides at no charge a variety of medical, dental, psychological, and psychiatric services. Many of the young people who come to Safe Space Station need such Clinic services. In fact, the Free Clinic is the parent organization of the Safe Space Station, although the shelter's day-to-day operation is virtually autonomous.

The first resident of Safe Space Station arrived three days after it opened its doors on January 18, 1977; since then the shelter has always had at least one resident. During 1981 the shelter housed 589 young people, averaging eight per night. In 1982, 703 stayed there.

Many youth shelters are located in large old residential buildings, but the original Safe Space facility was a renovated two-story commercial structure of about 2,900 square feet, including two dormitory rooms, one each for male and female residents, with six beds

Martin Hiller, director of Safe Space Station youth shelter in Cleveland, was born in the town of Westfield in western New York. After undergraduate study at St. Bonaventure, where he majored in history, and a two-year stint in the military, he went on to Miami University (Ohio), where he received an M.S. with a concentration in personnel counseling. For three and a half years he was Associate Director of Treatment at Community Action Against Addiction, with supervisory responsibility for all rehabilitation treatment at the central intake center, four outreach centers, and three treatment centers. For the past seven years he has been program director of Safe Space Station, an adolescent emergency shelter. He is married and lives in Mentor. He admits an enthusiasm for long-distance running and for raising and showing his three Clumber spaniels. Right: Martin Hiller at the entrance of Safe Space Station.





Safe Space Station is open to "walk-in" runaways 24 hours a day.

apiece. A one-story extension was built out from the rear of the structure in 1980, which had the effect of doubling the living area and tripling the space used for counseling.

Safe Space is administered by a director (the author of this article) and employs a full-time attorney, a program coordinator, five "house managers,"² and six counselors — three men and three women. (At present, because of budgetary constrictions, the shelter is without an administrative assistant.) The average age of the counselors is thirty-two, and most have had several years of youth work. Most of the counselors have attended or attend college; three have master's degrees and another a bachelor's degree.

The operating style of the staff is not the "mainstream human services" model, but is more informal, "youth-oriented" and "non-traditional," as will become clear later on.

The regular staff is augmented by volunteers, who do no counseling but help in the daily activities of the shelter, particularly in recreation. The shelter also serves as a field-placement facility in which graduate and undergraduate students in human services programs at nearby universities receive training and get needed practical experience, in-

cluding supervised counseling with individuals and families.

In the 1982 fiscal year, Safe Space Station operated with an annual budget of \$240,000, of which about one-third came from federal funds. It also received funds on a contractual basis for residential and counseling services for young people referred by the Cuyahoga County Welfare Department, Juvenile Court, and the Ohio Department of Youth Services, representing from a fourth to a third of the total budget. The remainder is made up of corporate and private grants, donations, and contributions.

Each runaway has a different story and a different reason for being at the shelter. But in demographic features — religion, race, family structure, and economic and social status — the runaways are practically identical to Cuyahoga County residents in the same age group (15 to 17). The racial mix is 50 to 60 percent white and 40 to 50 percent black, with a negligible proportion of all other ethnic groups. The discrepant statistic is that two-thirds of the youngsters at the shelter are female. Ninety percent of residents have come from homes in Cuyahoga County, though three times as many come from the east side of the county as from the west side.

About half of these adolescents come to Safe Space entirely on their own; about a fourth are referred by police, court, or the County Welfare Department. Three out of four arrive because of family problems; roughly one youngster in five has been "pushed out" of the home; one in six comes to Safe Space because of physical or sexual abuse at home.

Two-thirds of the youngsters stay a week or less, the other third remaining for most of the fourteen days allowable by federal and state guidelines. Of every ten youngsters at Safe Space in 1981, four returned to the family home; two went to live with relatives or friends; two went to a foster home, group home, or to another institutional residence³; one fell into the "Miscellaneous Outcome" category in the shelter's accounting system; and one went back to life "on the run."

Janet: coming to terms with parents

We have already followed Janet to the shelter. She has come directly from school by public transportation. She has no money with her. Earlier, she called the telephone hotline, 421-2000, complained of "troubles with her

parents," and obtained the Safe Space address. As she steps into the shelter and stands hesitantly at the door, the first thing she sees is a counter (the staff call it "the raft") and walls cluttered with schedules, photographs, and drawings. Behind the counter a young bearded man in an open collar looks up and smiles.

"Hi, I'm David. Can I help you?"

"My name is Janet. I called here earlier — I came to talk to somebody."

David, the counselor on duty as "intake" worker, has a record of her call. He asks her to sit down, and the intake process begins immediately. David tells Janet just what kind of place the shelter is and what it can do for her, and she starts to explain her problem. As she talks, David takes down demographic and family information and tries to clarify what the problems are. These notes may be included along with a more complete first entry in Janet's confidential file.

Janet is fifteen and a half years old, the oldest of three children. Her Dad is a semi-skilled, non-union blue-collar worker; Mom holds a full-time clerical job. Janet attends tenth-grade classes in a neighborhood public school. She has been a fairly consistent C+ student, but her grades have dropped in the last six months.

As the oldest child, Janet has been encountering increasing expectations and responsibilities. Her parents have assigned her additional tasks which in her opinion are not matched by additional adult privileges. In fact, she feels more restricted than she can ever remember. She has to cook dinner and round up her brother and sister before the parents arrive home from work; she has to clean not only her own room but the entire downstairs of the house. She and her sister rotate after-dinner cleanup. She is ordinarily called upon to babysit at home once a week, usually on Saturday evening, when her parents go out.

Janet says she wants to go out with friends on weekends, but that she has less freedom than others in her age group. Her parents have imposed a 10 p.m. curfew; her friends can stay out until midnight on Friday or Saturday, according to her story. She has a boyfriend at school who has asked to date her, but her parents have refused her request, claiming that Janet is "too young for that." Within the last year, she has been tardy for

school several times and has cut classes occasionally to be able to spend more time with her friends.

These complaints, though rather specific, do not indicate what brought Janet to the shelter at just this point. David prompts her to explain why she came to the shelter today, at 4:30 on a Monday afternoon. Janet replies that she cut a class to spend time with her friends and was caught for a third time. She was suspended at the end of the school day and feared the consequences at home.

Having heard the story, David tells Janet more about the shelter's program and especially about its problem-solving procedures. He shows her the "house rules," and she is surprised to find that they are set forth in a typed agreement. (A condensed version is printed on the next page.) She finds the rules reasonable, and both she and David sign the agreement. At this point Janet is officially a "resident" of this youth shelter.

The first task is to contact her parents, who by now will have returned home and not found Janet, and will be wondering what to do about this unexpected tardiness. Janet agrees, and she and David decide to take a break for supper. During supper, David talks with Sue, the counselor to whom Janet is assigned,⁴ and he briefs her on the details.

After supper, Sue makes a conference call to Janet's home; one of the siblings calls the mother to the phone. The parents are relieved to hear that Janet is all right. They have already called Janet's friends, who gave rather divergent stories about her whereabouts, and they were anxiously considering what to do next. The mother had not heard of the youth shelter before, and Sue — who has been doing most of the talking — describes the program to her briefly and without specific reference to the daughter.

After these preliminaries, the mother gets down to presenting her "side," and it turns out that there are several discrepancies with Janet's account, especially as to the amount of responsibility placed on her. The mother also reports that Janet recently has not been coming home when she was supposed to, and that occasionally she has brought friends to the house when neither parents nor other siblings were at home. On at least one occasion, she invited her boyfriend to the house unsupervised, and this precipitated the parents' refusal to permit dating. Janet has

been grounded a couple of times for breaking the agreed-upon curfew, at first for two weeks, and then indefinitely. She was now in the second week of her most recent grounding period. Janet's grades have fallen, she has received tardy slips, and now she has been suspended. Janet's mother says she *knew* this was going to happen, though she had tried to prevent it. She is not sure "what else I can do as a parent."

At this point, Sue describes the purposes of the youth shelter with specific reference to Janet's problem, emphasizing the necessity of her taking responsibility for her situation and working out, with her coun-

selor, more constructive ways of meeting her responsibilities.

Sue also suggests that the parents should consider more reasonable rewards for Janet when she carries out her responsibilities. Sue arranges a meeting between Janet and her parents at 7 p.m. Wednesday, two days hence, to discuss a compromise, and suggests that both parents discuss what specific responsibilities and expectations of Janet they could tolerate, given their awareness of difficulty with the present arrangements.

Sue assures the mother that since Janet has been suspended from attending school, school authorities will be approached to ob-

SAFE SPACE STATION CONTRACT FOR RESIDENTS

MUTUAL EXPECTATIONS

- Safe Space will help you with the problems that brought you here by providing
1. staff people who will listen to you, work with you, and treat you with respect;
 2. counseling for you and your family;
 3. food and shelter;
 4. legal and medical help.

We expect you to

1. work hard on a plan to change the situation that brought you here;
2. attend your school or job, on a daily basis and on time;
3. help with chores that keep Safe Space Station in good shape;
4. treat others with respect;
5. observe the house schedules and rules.

HOUSE RULES

1. No sexual activity of any kind. (No boys in girls' dorm or girls in boys' dorm.)
2. No drugs or alcohol at the Station or while signed out.
3. No stealing.
4. No weapons.
5. No violence or threats to staff or other residents.
6. No dangerous or disruptive behavior.
7. No smoking in the bedrooms, bathrooms, or kitchen.
8. Prescribed drugs must be turned in and will be given to you in accord with the prescription schedule.

VIOLATIONS OF HOUSE RULES

Violation of any of the rules may result in any or all of the following consequences:

1. warning and immediate staff attention to the problem;
2. recontracting (Having to read and sign the contract for a second time is the most serious warning. The next step is to be asked to leave.);
3. being asked to leave the program.

SIGNING OUT

Your responsibilities must be met before you sign out, and you must check with a staff person before signing out. Sign out before you leave, write down where you are going and a phone number if available. Because we care about you and expect you to act responsibly, we may verify where you are. We also do checks on school attendance.

OUR RECORD OF YOUR STAY

We keep a confidential record of your counseling and behavior while at Safe Space. This record will not be released to anyone without your permission. You can review your chart with a staff person and make any entries you wish.

tain school-sponsored instruction for her while she is at the youth shelter. Sue then explains the regulations at the shelter regarding curfew and chores that the residents are expected to do. (Parents are often surprised and pleased at the amount of structure the shelter arranges in the day-to-day life of residents during their stay. It is usually more than is provided in the home.)

Janet and her counselor meet daily for about an hour and discuss the negotiation of specific tasks and privileges with her parents. They also talk about Janet's suspension and her inadequate performance at school. Though Sue reminds Janet that she cannot make promises for the parents, she helps her arrive at a specific list of responsibilities and privileges that would seem reasonable to both parties.

The parents come to the Wednesday evening session prepared to negotiate. The counselor is present mainly to clarify disagreements and to make sure that the expectations of each party to the negotiation are clearly stated and fully heard. Sue sets the tone of the meeting by describing it as one of relatively minor adjustments within a basically sound relationship between youngster and parents. It is important that they all keep in mind that, despite recent conflicts and failings, they are in agreement on fundamental matters and have a genuine concern for one another. All three very much want to make whatever changes will lead to more amicable relations.

The Wednesday night meeting lasts an hour and a half, and the two parties agree to a compromise. They plan to meet on Friday to iron out small details and to cement the understanding. Janet is to go home with the parents after the Friday evening meeting.

Janet meets with Sue on Thursday to review what she expects for the future. Janet suggests that she would like to stay at the shelter for the weekend, "to have a little more time to think things over," and then to go home late Sunday afternoon rather than after the Friday night meeting. As an experienced counselor, Sue is not surprised at such reconsideration; but she reminds Janet that the purpose of the shelter is problem-solving, and reiterates that the new agreement will be completed on Friday evening. Recalling how the shelter's purpose has been described to her, Janet sees the unreasonableness of backing out of the agreement to leave Friday.



House-manager Joan Cotleur helps shelter resident work out her problems.

On Friday evening, remaining details are ironed out, and an agreement is reached that is satisfactory to both Janet and her parents. The 10 p.m. curfew is to remain for the time being, but it will be reconsidered in two months, contingent upon Janet's improvement in her school work. The parents accept the reasonableness of Janet's spending more time with her friends, and they agree not to tie her up with babysitting on Saturday night. Janet is to be permitted to see her boyfriend in supervised social activities. They agree to call if there is difficulty in living up to the agreement; at present, further counseling is not indicated. Janet goes home, and they all live happily ever after — one hopes.

Design and Operation of a Youth Shelter

Janet's experience illustrates many of the practices of the youth shelter. Any shelter must satisfy two fundamental conditions: (1) it must be available when needed, in an accessible location, and (2) the youth's stay must be voluntary. The accessibility of the shelter and the quality of its service will be broadcast primarily by word of mouth, although newspaper articles and public service radio messages will inform some potential users of its existence. (Initially, the resident roster of Safe Space Station was composed entirely of youths who had heard of the Station from other youths and who arrived voluntarily. Relationships to other agencies had not been established, and so at first there were no referrals from welfare, court, or other child-care institutions.)

Shelters such as Safe Space Station must be open 24 hours a day, since crises may occur

The Youth Shelter in Perspective

Running away from home has probably always been a prominent fantasy of childhood and early adolescence, as is suggested by stories ranging from Hansel and Gretel to *Catcher in the Rye*. But in America since World War II the incidence of running away seems to have increased. The *Reader's Guide to Periodical Literature* listed 13 articles under "Runaway boys and girls" in the decade from 1952 to 1961; from 1962 to 1971 there were 18; from 1972 to 1981 there were 47.

The first impression of an epidemic of wandering youth appeared in the 1960s. Though it is no doubt an oversimplification to view the sixties as a homogeneous period, in any event, along with the rock music, campus protests, increased use of drugs, and the sexual revolution of these years, came the first widespread awareness that many American youngsters — often from solid middle-class families — were exchanging the comforts of home for life "on the road" and "on the street." The beatniks had earlier sung the praises of life on the road; now there were places to go to. There was the obligatory pilgrimage to the Haight-Ashbury section of San Francisco or to New York's East Village, and ritual consumption of mind-expanding drugs. The flower children of this period of novelty and innocence often became casualties of drugs, V.D., and violence.

These dangers were forcefully brought to public attention in 1967, when *Time*, *Look*, and *Life* simultaneously carried stories of life "on the street," documented by stark photographs of youngsters lost in a strange city, dazed by alcohol and drugs, and sidetracked from their quest for an earthly utopia.

In this atmosphere of innocence and vulnerability, the first free medical clinics developed. Dr. David E. Smith established a pioneering free medical clinic in the Haight-Ashbury area and kept America abreast of counterculture developments. He analyzed drugs available on the street and published warnings of dangerous or contaminated substances. He provided at the facilities of his clinic places where those who had taken "bad drugs" or were having a "bad (drug) trip" could "crash" in a secure and controlled atmosphere. Clinic workers learned how to "talk down" those who were on a "bummer."

The "crash pad" became a familiar phenomenon: wandering young people, without money, would find a place to sleep on a sofa — or even on the floor — in the living room of a large and decrepit old house that a group of friends (acquaintances) rented cheaply. The temporary visitor might not even know the renters directly, but only a mutual friend or a friend of a friend. Such understandings and living arrangements could endure only in an atmosphere of innocence.

The crash pad then became more organized, as churches and other civic and humanitarian organizations set up, often with volunteer staffs, temporary residential shelters (like hostels) or therapeutic facilities outside the traditional institutions. Free clinics might be included in this category, though they were usually nonresidential.

Existing institutions were unable to meet the pressing human problems in the late 1960s. Imagine a young adolescent, having run away from home, in a strange city, his brain buzzing from some illegal drug he has inhaled or ingested. He has no money, it is late at night and cold, and he faces a choice among such official institutions as the police station, the fire station, and the hospital emergency room. This scene must have occurred thousands of times before alternative service institutions were developed. The free medical clinic, the rap center, the drop-in neighborhood counseling center, and the runaway shelter were responses to this environment of need and distrust.

at any time. This means a larger staff, a larger budget, and more complicated scheduling patterns than in a conventional 9-to-5 facility.

The voluntary nature of the shelter also is extremely important. The potential resident can come to the shelter and "check it out" before accepting shelter, and can decide whether he or she is willing to accept the stated rules and responsibilities.

In order to be able to help youths for whom there is a warrant for arrest, Safe Space Station has obtained working agreements from court and police authorities. Such a youth has the option of accepting shelter or not; if he stays, the first item of business is to deal with the warrant, with the aid of the shelter's counseling staff and its attorney. The authorities may either allow the youth to remain at the shelter or require that he turn himself in to the detention home. If the latter decision is made, the youngster may either comply or leave and take his chances on the street. This procedure has generally served the shelter, the authorities, and the runaway youth well. It puts the immediate personal concerns of the youth above other considerations.

Guidelines in screening potential residents have slowly evolved to a policy that excludes runaways who are presently withdrawing from addictive substances, are accompanied by a young child, or are psychotic or physically ill. The ill or psychotic youngster will be referred to an emergency room or hospital nearby, and the shelter will provide or arrange for transportation. Through trial and error, the shelter had to discover that such young people are unable to make the personal commitment to work out their problems within the framework of the shelter; they unintentionally make it very difficult for the shelter to take care of its other residents.

As in the case of Janet, the intake process serves two functions: the young person learns the nature of the shelter and decides whether or not to stay, and the staff worker collects information which is used in counseling and which also helps in dealing with such agencies as Juvenile Court, County Welfare, and sometimes foster-home placement offices. Some of this information must be reported to the state or federal agencies.

Federal guidelines require that emergency shelters notify parents within 72 hours



Recreation and chores are both part of residents' routine.

of their child's arrival at the shelter. This notification ordinarily takes place within 24 hours, and often at the intake session. The stay of the resident is usually limited to two weeks, on the assumption that the longer the child is away from home, the more likely the family is to become upset or to complicate the case unnecessarily by involving the Juvenile Court.

So if the young person decides to remain in the shelter, the phone call is made. It is a three-party telephone conversation. The young person may decide not to participate, but he is present during the call, because negotiations often occur during the call. It is not at all unusual for parents initially to refuse permission for the child to remain at the shelter. Their relief, anger, and frustration make their decision difficult. Parental permission,

however, is necessary according to the guidelines within which emergency shelters operate and receive federal funds, so the counselor ordinarily will describe to the parents the benefits of the shelter in the hope of changing their minds. If the parents still refuse, the worker may describe the alternative: the youth may leave the shelter and take his "chances on the street." During the phone call parents usually grant permission for the child to stay at the shelter; less than one percent have refused permission.³

The assigned counselor is responsible for counseling the youth, counseling the family, and serving as advocate with other agencies. If the counselor works in the evenings, as most counselors do, supervisory staff will deal with other community agencies during business hours.⁴ Safe Space Station has a full-time attorney, John Lawson, who works with the counselor and is responsible for legal assessments. The most common legal problem arises when the parents attempt to control a young person with an "unruly child" filing at Juvenile Court.

The young person entering the shelter commonly has a number of huge problems relating to family, personal identity, emotional maturity, and so on. But if a shelter is to be successful, it must focus on the problems that can be worked on and solved within two weeks. This counseling or therapeutic method is called "crisis intervention," which, in the context of a youth shelter, means that the pace of everything is stepped up: there is not enough time or resources for lengthy diagnosis. The problem must be quickly identified and the treatment aimed at changing the situation of the child and the family in an immediate, practical way.

Some youth shelters offer a limited after-care program. Safe Space Station is one of these; each counselor carries two or three "out-clients," that is, youths who have left the shelter but continue to see their counselors for purposes of therapy or assistance with practical matters. These counselors also carry out the normal counseling activities at the shelter; the percentage of residents who continue in after-care, however, is surprisingly small. After the residence ends, the motivation for making the effort to be present at conferences and to deal with family problems ceases. "We're cured, so let's forget about it," the family of the former resident seems to say.

The rapid turnover of residents, the infrequency of adequate follow-ups, and the necessarily urgent "band-aid" nature of the shelter's services all make staff morale a continuing problem. Counselors and workers move from one unhappy case to the next, often with little reward of gratitude from their clients and with little chance to feel the satisfaction of getting to the bottom of a client's problems. Funds are always short and unpaid overtime is sometimes necessary. Staff "burn-out" is a common occupational hazard.

Living Arrangements

The shelter's living arrangements are therapeutic. The assigned chores, spelled out at the time the young person enters the shelter, are designed in part as a re-education in "living" skills.

Though a youth has fled — or been thrown out of — his home, he has not escaped from schooling. The resident continues to attend the school in his home district, perhaps rising early in the morning to take public transportation. (Safe Space Station pays for transportation.) If the child has left his home county, work may be sent to the shelter by mail or by phone, to be done at the shelter. In a few cases, when the child has withdrawn from a school, a new school plan is not arranged, since the resident would probably attend a different school after leaving the shelter.

Every resident is expected to be present at the evening meal, a "formal" sit-down dinner. Such attendance is part of the contract, and it is designed to make the stay of the resident an experience of a "living community," as was his original home.

After dinner, from 6 to 7 p.m. there is a "house meeting," an informal session that is usually focused on issues within the shelter. Misunderstandings between residents are clarified; information is exchanged; the shelter gets feedback on the success of its procedures. The house meeting is conducted jointly by a house manager and a counselor, and it sets the tone for the evening: homework, family contact, and individual counseling are usually done in the evening. After these tasks are accomplished, there is time for recreation.

Recreation is essential for relieving the intense pressures the runaway youths are inevitably experiencing. A recreation budget of \$20 per week is set aside for activities outside

the shelter, which include visits to museums, an occasional movie, and other low-cost activities. More often, the shelter relies on donated tickets to a baseball game, time made available at the City of Cleveland recreation center on the west side, or at gymnasiums in neighborhood community centers. There is a basketball court behind the shelter and a ping-pong table in the basement. At the nearby Free Clinic, a wide variety of craft activities (painting, pottery making, etc.) are available with supervision by a resident artist.

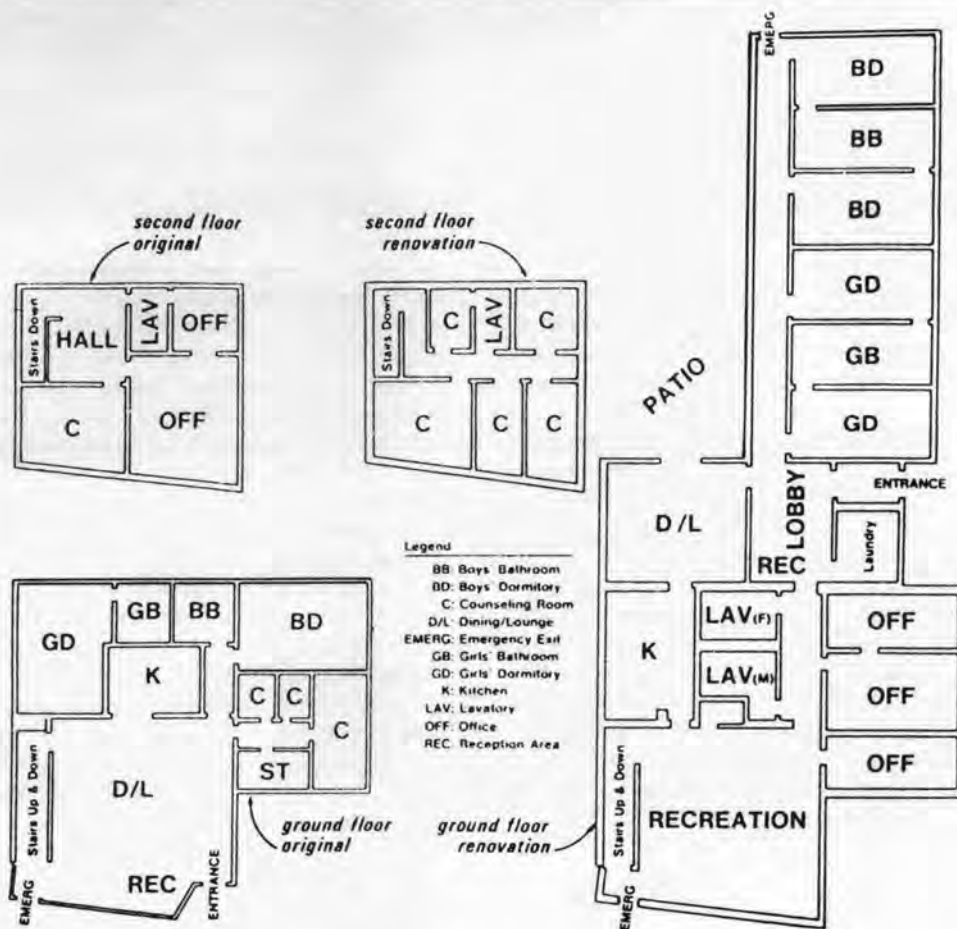
If the resident has free time in the evening, he or she may even watch some television until 10 p.m., when all residents gather for a staff-supervised relaxation session. The relaxation time blends a combination of yoga and meditation to help relieve the accumulated tensions and anxieties of the day. Con-

ducted by the night counselor, this activity typically ends with most residents asleep on the floor. Such a period is critical in alleviating the intensity of the daily shelter experience.

Debbie: a case of incest

Not all youngsters who enter the shelter arrive with problems so easily resolved as Janet's. Janet's parents were concerned and cooperative, and she wanted to reestablish a congenial relationship with them. The conflicts were over matters that could be adjusted through agreements on specific duties and privileges; there were no deep disturbances.

When Debbie first called the youth shelter and complained of excessive restrictiveness on the part of her parents, her problem sounded like Janet's. She claimed that she was not allowed to visit or even call her friends, and she was expected to come directly home



Original floor plan of Safe Space Station (left) and plan after renovation.



Rebecca DeVenanzio and Carl Redmond at "the raft," Safe Space's reception desk.

from school. Her parents appeared to expect her life to be limited to the confines of the family. On Debbie's first telephone call, the preceding week, she inquired about the shelter, which she had seen in a television public service message. This week she has called on two successive nights, and now she shows up at the youth shelter at 8:30 a.m. instead of going to school.

As she sits talking to Carl, the intake worker on duty, Debbie brushes her dark hair back from her face with a nervous gesture. She is fourteen years old, the second of four children. She has sisters sixteen and eleven, and a six-year-old brother. Her father has not been employed in the last year, since he was laid off; her mother has never worked outside the home. The family owns their home; a visitor to it would apparently not notice anything unusual.

When the time comes to consider how to make the obligatory phone call home, a troubled look comes over Debbie's face. She says she really doesn't want to speak to her father, because he "will be real mad." Carl ob-

serves this and begins to explore at greater length Debbie's feelings about her parents. Debbie says she used to have a very good relationship with her mother, but Mom began to "withdraw" in Debbie's early adolescence, and Debbie "feels bad" about it. The mother is pictured as giving all her attention now to the youngest child. The mother is often physically ill and remains in bed for long stretches of the day. She lacks energy and has become "religious," involved in a variety of activities at the neighborhood church.

Debbie speaks of her relationship with her sisters as quite good, and it becomes evident that Debbie's complaint is not unique: all the children live under the same level of restrictiveness. The older sister has not rebelled against this kind of existence and seems to have grown accustomed to it. The youngest child is said to be the parental "favorite."

Debbie says she feels close to her father, who is concerned about her welfare and tries to protect her; but she wants to be free of this degree of protectiveness. Carl begins to suspect that more lies below the surface at this

point: Debbie has characterized her relationship with her father as close, even though he has apparently not been responsive to Debbie's discontent; moreover, Debbie is unusually resistant to making the required telephone contact with her father.

The father, formerly only a social drinker, has been drinking more frequently since he was laid off. Debbie has found that when he is drinking, the problems are more severe, for he is more unreasonable. This pattern has worsened in the last ten months.

Though Carl does not feel he has clearly identified Debbie's problems, he is inclined to admit her to the shelter. He puts off the mandatory phone call for the time being, and, after going over the rules and regulations, he and Debbie sign the contract. He then confers with other staff, specifically with the shelter coordinator and with Rebecca DeVenanzio, a counselor who has completed a variety of training programs on physical and sexual abuse of children and who is now looked upon as the most appropriate counselor to deal with youngsters for whom abuse may be a problem.

After lunch that day Debbie has her first meeting with Rebecca. Naturally, Rebecca's specialty is not mentioned at the time of the meeting, but the principal aim of this first meeting is in fact to explore the possibility of sexual abuse by the father. She will begin with questions about Debbie's strenuously voiced refusal to telephone home earlier in the day.

The questions, initially posed in a rather nonspecific way, will become more focused. Debbie may be asked where she sits when she and her father are alone in the house; she may eventually be asked whether there has been any unusual physical contact between her and her father. The questioning must be delicately carried out, and it is ordinarily tailored to the level of understanding of which the youngster is capable. (With young children, it is not unusual to make a doll-house representation of the family, or to use puppets to represent actions for which the child has no word or description.) This interview could last for a couple of hours. In the course of discussion, Rebecca may or may not have to confront Debbie with very direct and unambiguous questions, but will do so if any doubt remains as to whether there has been some sort of sexual contact.

In Debbie's case, the session begins —

after reassuring preliminaries — rather tensely, and continues so until she acknowledges that there are a number of things troubling her which she did not mention to the intake worker. As the inquiry proceeds, Rebecca reassures her that her situation is not really unique, that there is not something wrong with her, and that the workers at the shelter need to know specific details about what has been going on in her family in order to help.

By the end of the session Debbie has shared some facts with Rebecca that she was initially reluctant to divulge. She has described a progressively incestuous relationship with her father that dates back about five years. Initially, she and her father were very affectionate, and hugging and other ordinary expressions of affection were typical. The father began fondling her when he was alone with her, and at some point this developed into a mutual activity; actual intercourse has been going on for the last year.

Her descriptions of the incidents are surprisingly antiseptic, and she remains convinced that her father cares very much for her; she only recently has begun to feel that this form of expression is not right. She has no idea whether her sisters have had similar experiences; these sexual incidents occurred only when she and her father were alone. She has never told anyone about them before, and while she is not sure that she has done anything wrong, she thinks this may be connected with her father's increased strictness.

In a case such as this, the counselor may decide not to call home, as is customary, but instead may contact the County Welfare Department, Abuse Hotline (telephone 696-KIDS). This permits the Welfare Department to contact the family and to notify them that the Department has received a report of a possible abuse of a child, who is now staying in a safe location, the address of which is not divulged. The Welfare case worker will ask the parents to come to County Welfare offices for an interview, and a worker will have interviewed the youngster at the shelter before the interview with the parents. After these interviews, the Welfare Department will assess what steps to take; it will not necessarily acknowledge that sexual abuse has occurred; in many cases, in their first interview, the parents will deny that any such thing has happened.

At this point, the counselor at the youth shelter takes on a different role. She becomes an advocate for the youngster's interests. She will inform Debbie about the proceedings that have begun, and will have to deal with the typically severe emotional aftereffects of the revelations, usually including guilt and fear. She may spend several hours a day with Debbie, and the other workers will maintain a more than ordinary awareness of the girl's activities and her comings and goings at the shelter.

If the results of interviews indicate further inquiry, an interview will be held with child, parents, and County Welfare worker and supervisor. The shelter counselor will usually not be invited to the interview, but the youngster will have been prepared for it by the counselor. She will be prepared for possible denial by the father and for the other emotional shocks of the meeting.

Depending on what happens at this important meeting, the County Welfare Department may initiate a variety of actions. Speaking generally, the overriding concerns of the County Welfare organization are, first, to protect the youth; second, to keep the family together if possible; and third, to intervene as little as possible — largely because of insufficient County Welfare staff and funds. After the meeting between Debbie and her parents, events may take any of several directions.

1. Debbie's father may vigorously deny his daughter's story. Debbie, prepared for the meeting, would insist on the truth of her story. County Welfare must judge whether the story is valid. (Prior to the family conference, case workers will have interviewed other siblings for information that may corroborate Debbie's story.) After the meeting, Debbie will certainly return to the shelter, and the County will begin to act on a plan to separate her temporarily from the family. The Juvenile Court will become involved, for County Welfare must file a "dependency action," in which blame is not placed on any party for removal of custody from the parents. Both parents must, without admitting wrongdoing, agree to give up custody temporarily. The youngster becomes a ward of the County Welfare organization, which begins immediately to seek out a relative for temporary placement.⁷

2. A second possible outcome of the family interview would be that the father admits responsibility, appears contrite, and —

most important — expresses willingness to obtain professional help. If his wife, faced with the admission, chooses neither to ostracize Debbie from the family nor to seek a divorce, it is possible that Debbie would return home. In this case, almost certainly the father would leave the home voluntarily — or would be asked to do so — for the sake of the youngster's safety. He would reside elsewhere, with specific guidelines as to permissible visits and a schedule of reintroduction into the family. A therapist would be engaged from private practice or from another agency (e.g., the Child Guidance Center or the Free Clinic) to work with the family, settle the details of living arrangements, and provide individual therapy for the persons involved. Successful individual therapy would be followed by sessions with the couples involved: the father and mother; perhaps Debbie and her mother; and eventually Debbie and her father. Ultimately, the family as a unit would be involved in counseling, preparatory to reunification. This process could require one to three years.

3. A third possible outcome: imagine that the father does not admit guilt, but that the older and younger daughters also are found to be victims of sexual abuse and therefore have to be removed from the home. In this case, the County Welfare Department may make a police report. The Police Department staff will investigate and may then go to the County Prosecutor, who must decide whether there is enough information to take the criminal complaint to a grand jury. The grand jury will hear the case and determine whether to indict the father. If an indictment is handed down, the case will be brought before a judge at the Common Pleas Court. The entire process will have become far more complicated, because the father will have engaged an attorney and there is a threat of punishment.

Court proceedings are unpredictable, but there are only two possible outcomes: guilty or not guilty. Ideally, the threat of punishment would be an inducement for the father to cooperate and to seek professional help. But if the father is actually sent to jail, the overriding goal of family reunification is thwarted. Sexual abuse cases are frustrating because it is difficult to establish evidence. Moreover, the incest taboo involves strong emotions that can make a rational but distant goal, such as family reunification, unattainable.

The whole legal approach to the prob-

lem is often in conflict with the accepted therapeutic remedies. For this reason, however heinous incest may be considered, only rarely do cases of this abuse find their way to criminal court. Elsewhere—in Spokane, Washington, and San Bernadino, California, for example—pilot programs combining criminal charges with a treatment program are just now being tested.

* * *

When Safe Space Station opened in 1977, the staff had no idea that a considerable proportion of the runaways would be fleeing homes in which they had been sexually abused. In the first two years of operation, about one such case turned up every two months, roughly one out of seventy-five residents. The victim was invariably female, and the father was the typical offender.

Today between ten and sixteen youngsters are identified as victims of sexual abuse every two months, from a total service group of 120. This change probably does not represent an increase in the incidence of incest, but only an increase in the capacity of the staff to see the signs and to pursue the possibility. One staff person began to specialize in this problem, and the entire staff became increasingly aware of the problem and better able to spot the signs of incest, as in the case of Debbie. Along with the increased vigilance went an increase in the sheer amount of service given to these youngsters, who of all the residents of the shelter require the most supportive counseling and individual attention, including, in some cases, surveillance aimed at preventing possible self-injury and behavior that can result in hospitalization in a psychiatric facility. Service for incest victims demands a great deal of staff time.

The shelter soon found that the fourteen-day period of residence allowed under the Runaway Youth Act was not sufficient to handle such cases. It is required by law to report cases of *suspected* sexual (and physical) abuse to "the legally designated investigative agency"—in Cuyahoga County, the County Welfare Department. The resulting investigation, interviews, and interaction between various agencies quickly use up the allotted fourteen days. In the past the County, assuming that the offender in an incest case, once exposed, will not repeat the offense, has not extended its service beyond that point. In recent years, however, there has been increased

recognition that placement outside the home and continuing therapy are usually necessary to prevent damage to the child. The renovation of Safe Space facility in 1980, increasing the dormitory space to sixteen beds, made the extended stay a real possibility.

Paying the Bills

Most youth shelters in the country receive support from a variety of sources. Almost all of them receive some money from the Youth Development Bureau (YDB), a federal funding outlet within the Department of Health and Human Services, where top officials are appointed by the administration in office at the time. In addition to funding temporary shelters, the YDB helps maintain a national hotline for the location of missing youth.

YEAR	AMOUNT
1976-77	\$75,000
1977-78	\$75,000
1978-79	\$85,000
1979-80	\$85,000
1980-81	\$77,000
1981-82	\$77,000
1982-83	\$77,000

Safe Space Station also receives grant support from corporations and private foundations such as the Cleveland Foundation and the Gund Foundation; such grant funds are usually earmarked as "seed" money for experimental programs rather than being applicable to ongoing operating expenses. Individual donors also contribute to the shelter, though Safe Space Station lacks the staffing to solicit such support regularly and effectively.

Finally, Safe Space Station receives compensation from the County Welfare Department *per diem* for the shelter of minors officially taken into custody by the County. The current rate paid by the County, \$35.20 per day, per person, is less than seventy percent of the actual average daily cost to the shelter, which is \$46.30. The shelter has often had considerable difficulty recovering funds owed it by the County, because of the inefficient procedures in the County offices. Unfortunately, the shelter must use a great deal of its limited staff time just to keep enough money coming in to continue operating.

Legislative Background

During the 1950s and 1960s new attention was paid to juvenile delinquency, and some improvements were made in the juvenile justice system. The Department of Health, Education, and Welfare (HEW) was assigned some responsibility for creating and funding a variety of youth programs, under the 1961 Juvenile Delinquency and Youth Offenses Control Act and 1968 Omnibus Crime Control and Safe Streets Act. The Office of Youth Development, within HEW, administered several such programs, but in fact a variety of youth programs existed in several federal departments. The *Congressional Quarterly* counted 116 distinct federal youth programs in 1974—certainly a rambling, uncoordinated, shotgun approach both to the traditional problems of delinquency and to such newer problems as epidemic pregnancy of unmarried girls, drug abuse, and venereal disease.

In 1970, runaway youth shelters, like free clinics and other "alternative" organizations, were strictly local efforts, dependent on the charisma of a few dedicated people, with small, poorly paid staffs supplemented by volunteers. Funding was mostly local, coming from civic organizations, churches, and foundations willing to support experimental programs. State moneys might come through application to the County Mental Health and Mental Retardation Board. In general, federal funding was minimal: Richard Nixon was in office, and distrust of the Establishment was at its height. To seek federal dollars was a form of selling out.

A few U.S. Congressmen became advocates of youth shelter programs and of other youth services. Senator Birch Bayh (Democrat-Indiana) and Representative Gus Hawkins (Democrat-California) sponsored early legislation on runaway youth. Passage of a prototype Runaway Youth Act failed twice in the early 1970's, despite the visibility of the problem. The unsophisticated and strictly local nature of existing shelters—numbering around 40 in the United States in 1973—prevented them from exerting influence on the legislative process and helps to explain the early failures of federal runaway youth legislation.

A few farsighted individuals on the east and west coasts attempted to coordinate these local efforts. Bill Treanor, a veteran of the civil-rights movement and director of a Washington runaway center, organized the first national conference of youth shelters at Carlton College in Northfield, Minnesota, in 1972. In 1973 he founded the National Youth Alternatives Project (NYAP)—its present name, National

Youth Workers Alliance (NYWA), was adopted in 1978—as a source of educational and technical services for alternative social-service agencies. By 1974, NYAP had facilitated the birth of a national *network* of runaway shelters, which coordinated educational conferences and made possible the exchange of information and planning. NYAP also helped communication between existing shelters and sponsoring legislators such as Bayh and Hawkins, and it provided technical assistance in the bill-writing process.

By 1973 legislation for runaway youth had forceful sponsors and a coordinated grass-roots movement. Another ingredient necessary for success was the willingness of some federal agency to undertake the potential programs. The Office of Youth Development within HEW had acquired an unfavorable reputation in the delinquency field. With its legislated lifetime nearing its end, its administrators pressed money into shelter programs to try to create a track record that would look favorable when the youth shelter legislation would eventually be passed, as seemed likely. In fact, several programs within HEW actively competed for potential control over the runaway shelter programs. HEW was pressured from within to announce its willingness to undertake the program. Secretary Caspar Weinberger was favorably inclined. Despite its inept handling of delinquency problems in the past, HEW was the philosophically appropriate choice "to provide community-based alternatives to the traditional juvenile detention and correction facilities."²

The last step was a legislative strategy. The original Runaway Youth Act, modified in 1974, was written into the Juvenile Justice and Delinquency Prevention Act as Title III of that Act. This location was appropriate since youth issues were at the heart of both pieces of legislation. However, the Juvenile Justice Act was targeted for the Law Enforcement Assistance Administration (LEAA), a tough outfit created in the Justice Department in 1968 by the Omnibus Crime Bill. Philosophically, it made no sense to locate an "alternative services" vehicle within the LEAA, noted for its "traditional orientation toward law enforcement rather than delinquency prevention."³ With the consent of HEW and with Bayh's blessing, Title III was placed within the Office of Youth Development in HEW, and given an authorized limit of \$25 million annually. A Bayh amendment gave youth representatives a substantial voice in funding and evaluating shelters.⁴

¹The knowledgeable assistance of Doug McCoard, Director of Huckleberry House, Columbus, Ohio; and of Tom McCarthy, staff writer for the National Youth Workers Alliance, Washington, D.C., is gratefully acknowledged.

²*Congressional Quarterly*, 32 (1974), 1976.

³*Ibid.*

⁴*Ibid.* The National Advisory Committee for Juvenile Justice and Delinquency Prevention was to be composed of 21 persons, "with at least seven of its 21 members under 26 years old."

Shelters for homeless young people have been relatively successful in staying afloat in the shifting political tides of the past decade. The Runaway Youth Act of 1974 created a "categorical" program, that is, a program for a specific and limited purpose. Such programs are most susceptible to elimination during changes in administration; and if they are not eliminated, they can suffer an unpredictable reduction in funding during the federal budget process. Those who must defend existing programs, the top administrators of the Youth Development Bureau, cannot always be counted upon to do so, for they are political appointees of the present administration, not youth workers who have come up through the ranks and have developed a commitment to youth issues.

President Reagan initially recommended no funding at all for shelters; subsequently, he recommended a total funding of \$6.6 million, which the politically appointed YDB representative testified was adequate.

The Runaway Youth Act authorized allocations up to \$25 million, and the 1979 allocation was \$12 million. The Senate approved an allocation of \$18 million in its budget resolution, and the recommendation was sent to a conference committee for resolving differences with the House version. On September 5, 1982, *Parade Magazine* carried an incisive story on runaway youth, which provoked a great many letters to Senators and Representatives. In the end, after further hearings, \$21.6 million was finally allocated to shelters.

The problem of runaway and homeless youth will not soon disappear, and economic stress is likely to reduce further the capacity of families to care for their youngsters. In the constellation of community services, the youth shelter stands almost alone as a temporary haven. The efforts of these shelters have replaced those of more traditional institutions and they are going a long way toward meeting the crisis needs of adolescents and their families.

NOTES

¹The names of both Janet and Debbie are fictitious, and both stories are representative composites from a large number of adolescents who have stayed at Safe Space Station in the last six years.

²The counselors are responsible for *individual* residents and the handling of their problems typically through counselor contact with other institutions. The "house managers" are the *group* specialists, assuring the smooth operation of the shelter as a whole, intervening in disputes, arranging activities, and making sure that the daily housekeeping tasks of the shelter get done.

³Safe Space Station is a short-term residential shelter. In Cleveland there are long-term residences for homeless children, such as the Parmadale Children's Village (run by the St. Vincent de Paul Society), the Metzenbaum Children's Center (administered by County Welfare Department), and Ohio Boy's Town (run by the Variety Club Charities).

⁴The assignment of a counselor may not happen until the next day. Among the considerations in the assignment are: the problems of the youngster and the special skills of particular counselors; the client load of the counselors; and the compatibility of the counselors' work schedule with the availability of the family for counseling and conferences.

⁵If the permission is not given, the child may return home if the parent will have it that way; or the child may be denied re-entry to the family, in which case the shelter refers the case to County Welfare as an abandonment, and an alternative living arrangement is sought. The alternative may be the original shelter, in

which case the child now remains within the shelter as a referral from the welfare agency and as a ward of the county.

⁶Very recently at Safe Space Station, one counselor has chosen to work half-time, and to be available on weekend days full-time. In the previous years, counselors have had to suffer rotating shifts that have involved day and evening schedules, weekday and weekend schedules. The presence of a weekend counselor will make possible development of special skills at "transitional counseling" of residents whose assigned counselor is not working on the weekend.

⁷While her case awaits resolution, Debbie will reside at the youth shelter with continued counseling. If a relative is not available or willing, the County Welfare Department must place Debbie in a foster home or in a group home. Placement in any of these three residences — with a relative, in a foster home, or in a group home — involves extra amounts of work and preparation, usually undertaken at the shelter. In the case of the relative, not much more is required than careful guidelines regarding contact between Debbie and her family, and in some cases, brief counseling about the relative's feelings concerning the problem and some education concerning the problem of incest. In the case of placement in a group home, a large "placement package" must be obtained, with a full social history, a medical history and records, materials from her former school, and records from psychological testing. In addition, Debbie would participate in an interview at the site of the group home, and the decision would be made as to whether her residence there would be trouble-free and beneficial to her. During the entire process, supportive counseling would continue, with the aim of family reunification six to twelve months later.

⁸Other *per diem* contracts have been made between Safe Space Station and the Juvenile Court, and with the now-defunct Ohio Youth Commission. The rates differ in each case, since the rate is negotiable.

Robert E. Hermann

The Training of Surgeons

"So you want to be a surgeon ... You have experienced seemingly endless nights of drawing blood, of doing histories and physical examinations, and of holding retractors in the operating room ... You have been harassed endlessly for trivia and minutiae by distant and unfeeling attending staff or chief residents ... You have cancelled, with a sigh, an evening out on the town when your service has suddenly gotten an interesting patient as you were about to go home ... You have stared aghast at socks and occasionally underwear stained with blood or other patient fluids accrued during long hours at the operating table ... You have endured the sneers of your student peers currently on medicine or pediatric rotations about the alleged "animal house" behavior of your surgical colleagues ... You look, thunderstruck, at 30- or even 40-year-old surgery residents still in the midst of their training status while their children enter high school ... You have seen and experienced all that, and you still want to be a surgeon?"

—D. M. Heimbach and K. Johansen, *So You Want to Be a Surgeon*¹

In spite of the rigors of surgical training and practice — long hours in the operating room; disruptions of personal life; the necessity of dealing with gunshot wounds, automobile injuries, burns, and other assaults on the human body; and the emotional involvement with a patient who may die — a significant percentage of medical students each year choose surgery as a career. What are the attractions?

First, the surgeon has a chance to use his or her hands to correct something that has gone wrong: the repair of a mechanical problem such as a hernia, a fracture, or removing a kidney stone; or the adjustment of some bodily function, such as the removal of an islet-cell tumor of the pancreas which secretes too much insulin.

Second, surgery often produces quick results. The effect of medicine prescribed by an internist (specialist in internal medicine) or family physician may take weeks or months, whereas surgeons tend to deal with acute problems whose correction can produce dramatic improvement. Surgeons like to get things done or see things happen without waiting around a long time.

It must be admitted that most surgeons love to cut and sew. They love to delve into the body cavities, to see "inside," where vital processes happen, to go to the source of the problem if possible. The cardiac surgeon feels a thrill and sense of power when he is able successfully to stop the heart, replace a weakened or faulty valve, and restart this human pump again. The neurosurgeon, when he

Robert E. Hermann, Chairman of the Department of General Surgery at the Cleveland Clinic Foundation, was born and raised in the small town of Highland in south-central Illinois. He grew up knowing something about medicine and the life of a doctor, since his father was a general practitioner. He received an A.B. degree from Harvard University and an M.D. from Washington University School of Medicine, and did his internship and residency in the University Hospitals of Cleveland. In addition to his position at the Cleveland Clinic, he is a Clinical Professor of Surgery at Case Western Reserve University School of Medicine. He is a member of some 29 professional societies, in most of which he has served as president or other officer. Dr. Hermann has won a number of awards for research and for scientific exhibits; he has produced five movies demonstrating surgical procedures and is author or co-author of (at last count) 148 articles on subjects related to surgery.





The author (right) performs surgery assisted by residents (from The Cleveland Clinic Educational Foundation, *Graduate Education Programs*, 1982).

opens the skull and removes a tumor that has been causing pressure symptoms on the brain substance, cannot help but feel that he has approached the mysteries of life. These and many other sorts of surgical specialists have in common a sense of immediate personal fulfillment and pride in their work.

Finally, in the hospital, the surgeon is the superstar. His domain is the operating room; here he is served by the nurses, respected by the anesthesiologists, consulted by the other medical specialists. The drama of surgery, its pressures, the difficult decisions which must be made, all are attractive to persons with the surgeon's temperament. It is also true that he can often earn in a few hours what other physicians earn in a whole day or two.

Personality traits of surgeons

Medical students who choose surgery as a career often show certain identifiable attitudes and personality traits. A study by G. D. Otis and J. R. Weiss has found that students who selected surgery as a career were more aggressive, stubborn, and authoritarian than

other medical students. They tended to be "thick-skinned" and were able to handle difficult emotional situations without great distress. They tended to be confident, somewhat unsophisticated, sometimes crude, easily pleased, and free of jealousy. They thought of themselves as realists, had good memories for facts and details, and were good at handling tools and machinery. They were "thing"-oriented rather than "idea"-oriented.²

Other investigators have noted that students interested in surgery tended to be less prone to anxiety, were more cynical,³ and were more intolerant of ambiguity than students who chose internal medicine, pediatrics, or some other specialties.⁴

Heimbach and Johansen, quoted at the beginning of this article, also summarize personality traits which favor a surgical career: they include impatience, good manual and spatial orientation (as might be exhibited, for example, in mapreading or geometry), and an ability to endure long work hours, to tolerate the unexpected or the inconvenient, and to make decisions on an inadequate data base without undue emotional stress; surgeons

must be willing to subordinate outside social, personal, and family needs to those of their patients. Students choosing surgery are likely to be outgoing and involved in extracurricular activities such as sports, music, and college organizations. Finally, they are intellectually conservative. Surgeons learn early to have a priority of values, conserving as much as possible at all times, in accordance with the old saying, "Life before limb, function before form."⁵

The clinical clerkship

During medical school, all students rotate through a variety of "clinical clerkships," in which they begin to work with patients in hospitals and clinics. Most medical students spend at least three months on internal medicine and three months on surgery in their junior year, and junior and senior medical students rotate through the clinical fields of pediatrics, obstetrics-gynecology, and psychiatry, and have electives in pathology, laboratory medicine, and radiology. Students assigned to clerkships may choose a specific hospital from among those affiliated with their medical school, or they may choose to work predominantly on a ward or on a private service, depending on their special interests. During these clerkships, the student deals with medical or surgical patients in both the outpatient clinic and the in-hospital service. They work with private attending physicians and surgeons as well as with resident physicians in training, and thus have the opportunity to see the types of diseases commonly treated. They begin to develop a sense of which field of medicine appeals the most to them, and begin to make early career choices. At this stage, the student who has a squeamish stomach or can't tolerate the sight of blood decides he may be best suited for internal medicine or radiology. The student who loves working with children decides to be a pediatrician. The student who likes action, who is fascinated by anatomy, and who doesn't mind the blood and guts of the operating room may make his or her decision for the life of a surgeon.

During these clinical clerkships, students wear white coats, carry stethoscopes, and begin to "practice medicine." Over cups of coffee at night, they hold endless discussions about patients, their diseases and treatment regimens, and they ponder moral and ethical judgments and philosophies of life.

There is a story of a professor of surgery making rounds with six senior medical students. The group walked into the room of a patient, and one student presented his case to the group. The professor then turned to another of the students (it happened to be the smartest student in the group) and asked him, "Would you operate on this patient?" The student had not read up on this particular disease, so he decided to be conservative and said, "No, I would not." The professor then turned to the next student in the group, asking the same question. This student decided to line up with the first student under the theory of "safety in numbers." All the other students also lined up with the first two, stating they would not operate. With some disgust, the professor of surgery, knowing that proper treatment required an operation, said, "Well, I plan to operate on this patient tomorrow." With that, the patient sat bolt upright in bed. "Oh no, you're not. Six to one is good enough for me!"

And there are stories of the patient who will not agree to an operation until he has discussed it further with "his doctor," the senior medical student who took his history and performed his basic physical examination. These stories suggest the role of the medical student on his clerkship rotations as he works as a part of the team of doctors caring for the patient in the hospital.

Residency training

As the senior year of medical school progresses, all students must make a career choice as to further residency training. Those students choosing a career in surgery have several choices, as indicated in the table on the following page. The complete training of a surgeon thus includes four years in college, four years in medical school, and from four to six years in postgraduate or residency training to become a surgeon or surgical specialist.

Young surgeons in the first year of residency training learn how to write up the patient's history and conduct physical examinations. They learn more about the diseases or disorders common to the specialty area, and about the various laboratory and x-ray diagnostic procedures. The resident spends time with various surgical specialists, assisting them in their operations, and cares for the patients before and after operations. He is the "house officer" who stays in the

TABLE I: FIELDS OF SPECIALIZATION IN SURGERY

Surgical Speciality	Residency Training after Completion of Medical School	Nature of Speciality
General Surgery	Five years, plus one or two additional years for specialties within general surgery, including: surgery of the gastrointestinal tract, colon and rectal surgery, oncologic surgery (malignant tumors), vascular surgery, trauma surgery (injuries), and pediatric surgery.	Predominantly gastrointestinal surgery, surgery of the abdominal wall (hernias), surgery of the breast, the neck including the thyroid and parathyroid glands, blood vessels, soft tissues of the body including skin and subcutaneous tissues; and management of patients with multiple injuries, especially in the abdominal area.
Cardiothoracic Surgery	Five years in general surgery plus two additional years.	Formerly called thoracic or chest surgery, in recent years this field has been dominated by heart surgery; it also includes care for patients with problems of the lungs and esophagus.
Orthopedic Surgery	Five years, with six months or a year additional for hand surgery.	Treatment of bone fractures, injuries to ligaments, bone tumors, and disorders of growth of the musculoskeletal system; often includes treatment of muscle tumors and other malignant tumors involving the musculoskeletal system or an extremity.
Plastic Surgery	Three to four years in general surgery, followed by two years specialty training in plastic surgery. Sometimes six months to a year additional in hand surgery.	Treatment of cosmetic disorders of the face and head, breast, and skin generally; consultation in the removal of malignant tumors in face, head, etc.; care of patients with burn injuries involving skin grafting and reconstructive efforts.
Otolaryngology	Five years.	Surgery of the ear, nose, throat, mouth, head, neck, sinus passages, voice box, etc.
Urology	Five years.	Treatment of the urinary system — kidneys and bladder.
Neurosurgery	Five years.	Treatment of problems of the brain, spinal cord, and peripheral nerves, including tumors, congenital deformities, and injuries.
Gynecology	Five years.	Surgery of the female organs, including tumors, developmental problems, injuries, and problems related to childbirth or aging.
Ophthalmology	One year general training plus three additional years in ophthalmology.	Treatment of diseases of the eye, muscles of the eye, optic nerve, and eyelids.

hospital "on call" all night (usually every third or fourth night), and who writes most of the orders for sleeping and pain medications and other necessary medicines.

In the second and intermediate years of his or her specialty training in a surgical residency program, the resident becomes a more active participant in operations, learning the techniques of the various procedures, and actively performs parts of the operation under the supervision and guidance of the senior or attending surgeon. During the course of the operation, the resident may start to tie sutures, to cut the suture after a knot is tied, and to handle the needle and thread. Finally, under the guidance and watchful eye of the senior surgeon, the resident is given the knife or the scissors and permitted to perform the incision, to open the abdomen, to remove the appendix or the colon, and eventually, after months or years of training, to perform the whole operation, "from skin to skin," with the senior surgeon acting as *his* assistant.

Learning surgical skills can be compared to learning to play the piano. You must practice the various maneuvers and parts of the whole until you can put it all together. And you can't learn by only watching, you must do it over and over again, practicing each maneuver carefully under the watchful eye of the teacher.

As the resident develops his surgical skill and dexterity, his work is analyzed, discussed, criticized, and (not often enough, he thinks) praised. In some surgical specialties where emergencies, accidents and injuries, or other unscheduled procedures are seen frequently, the resident surgeon in training often works day and night, around the clock for 36 or 48 hours, until his time off, when he is able to fall into bed for a night's sleep.

This aspect of resident training has recently come under criticism. Many well-meaning educators, students, and other observers have questioned the need for around-the-clock duty for residents in training. There are several reasons why this exhausting regimen continues. First, in actual practice many physicians and surgeons are called out at night to handle emergency problems after working all day and facing a full schedule the next day. New physicians must practice and be able to handle these demands of their profession. If the resident were not present at night or on weekends, he would

miss a vital learning experience in the management of emergencies, which occur at unscheduled times, often at night. Second, the resident in training is the "house physician" in the hospital, employed by the hospital and its medical staff to care for the patients during the entire 24 hours. If these young physicians were not on duty, additional physicians would have to be employed. This is the service aspect of residency training, to some extent justifying the salaries and insurance reimbursements paid to the physician in training.

In the final or senior year of residency training, the resident surgeon is given full responsibility to make diagnoses, order studies, and perform operations, still under the guidance and supervision of the attending or senior surgeons in the hospital. In this final year, he is tested to determine that he has the skills and ability to go into practice the following year. The question constantly raised is, "Is he a safe surgeon?" During this final year, increasing emphasis is placed on judgment, on choices of operation, on the timing of the operative procedure, on the operative risk to the patient and how it could be improved, and on alternate choices of therapy — either surgical or medical treatment. The residents discuss operations and areas of controversy in surgical technique or practice. The surgeon in training is encouraged to read and criticize papers from other institutions and to attend national meetings where he will be exposed to a variety of teachers and speakers to learn new ideas and techniques.



Supervision and certification

All residency programs in surgery in the United States are supervised by a Residency Review Committee. This committee, consisting of twelve surgeons of that specialty, meets once or twice a year to review all residency training programs in the specialty throughout the United States. Each residency program is inspected every three to five years

by a surgeon from the Residency Review Committee. After reviewing the inspector's report, the Committee gives either full, provisional, or probationary approval to the program, or disapproves it for further residency training.

In the United States at the present time there are approximately 350 hospitals which offer surgical residency programs. There are over 1,000 surgical programs and about 20,000 residents (Table II). From these many programs, between 1,800 and 2,000 newly trained surgeons and surgical specialists enter practice each year.

TABLE II
RESIDENCY PROGRAMS IN SURGERY
IN THE UNITED STATES — 1982*

	No. of Programs	No. of Residents
General Surgery	331	8,105
Colon-Rectal	26	40
Pediatric Surgery	18	27
Cardiothoracic Surgery	98	281
Orthopedics	180	2,667
Plastic Surgery	105	389
Otolaryngology	112	995
Urology	153	1,027
Neurosurgery	93	608
Gynecology	304	4,705
Ophthalmology	155	1,543

A resident who has completed the prescribed time of training is eligible to be examined for certification by one of the appropriate surgical specialty boards (e.g., in general surgery, cardiothoracic surgery, otolaryngology, etc.), which were founded between 1930 and 1960 for this purpose. Having taken the prescribed period of training in a recognized and approved surgical residency program, each surgeon graduate presents to the appropriate board a list of operative cases on which he has

assisted and operations he has performed, and provides letters from his program director attesting to his completion of the residency program. He then takes a written examination, usually lasting six hours and covering all aspects of the specialty. After passing this written examination, he takes an oral examination lasting 1 1/2 to 2 hours. On passing the oral examination, he is certified as a fully trained surgeon or surgeon specialist recognized by the American Board of Surgery or one of the other specialty boards. This recognition on a national level makes the young surgeon eligible to practice in any hospital in the United States.

Surgical associations

Having successfully completed his medical education, residency training, and certification by his specialty board, the surgeon begins his practice. After two years he may apply for membership in the American College of Surgeons, a scientific and fraternal association of surgeons, all of whom are either certified by an American Specialty Board or recognized as having appropriately similar credentials from training in a foreign country. The College oversees and reviews the work of surgeons in the United States through its local, regional, and state committees and review boards. If a surgeon becomes disabled or develops a dependency on alcohol or drugs, or if he begins simply not to keep up or fails to practice appropriately, mechanisms are available to censure or suspend him. The College attempts to help practicing surgeons with their problems, provides them with continuing medical education, and speaks for them in contacts with other medical, legal, or governmental groups. It sends representatives to the American Medical Association and to the American Board of Medical Specialties, where problems in medicine and surgery are discussed. Legal issues are discussed at College meetings, where lawyers are invited to present lectures or take part in panel discussions. Representatives of the College often give testimony to legislative and government committees.

The American College of Surgeons holds a meeting each year in October, attended by approximately 10,000 surgeons. A second, smaller meeting is held each spring, emphasizing two- or three-day postgraduate courses in various surgical subjects. The an-





Surgery instruction in the nineteenth century, before the introduction of aseptic methods. From Thomas Eakins's painting *The Gross Clinic* depicting the operating theater in Jefferson Medical College, Philadelphia, 1875.

nual meetings make available new research, papers on surgical procedures, movies on surgical techniques, forums on experimental techniques and procedures, and panel discussions, all of which continue the education of the practicing surgeon.

Most of the states have a state chapter of the American College of Surgeons, with annual meetings that often deal with social, legal, economic, and educational issues. There are also regional surgical societies and organizations devoted to surgical specialties, including the Society for Surgery of the Alimentary Tract, the American Vascular Society, the Hand Society, and many others. Most surgeons subscribe to three or four professional journals such as the *American Journal of Surgery*; *Annals of Surgery*; *Surgery, Gynecology, and Obstetrics*; *Archives of Surgery*; the *Journal of Plastic and Reconstructive Surgery*, etc., which keep them abreast of new research and techniques.

Training in the past

The extensive training now required of surgeons and other medical specialties is a fairly recent development in the history of

American medicine. Although apprenticeships to a practicing physician had long been a traditional part of medical education, hospital internships and residencies did not become a regular requirement in the United States until the twentieth century. Charles W. Eliot described the state of medical education in 1869 when he became President of Harvard University:

There were no requirements for admission to our medical schools. To secure admission a young man had nothing to do but to register his name and pay a fee ... The total period of required attendance for the degree of Medicine did not exceed, in the best schools, three winter terms of four months each. The main means of instruction were lectures, surgical exhibitions in large rooms appropriately called theatres, rude dissecting rooms with scanty supervision, and clinical visits in large groups ... A majority of young medical practitioners were, therefore, uncultivated men with scanty knowledge of medicine and surgery who had had opportunity for but a small amount of observation by the bedside and but little experience in hospitals.⁷

The effort to combat such lax standards led to the founding of the American Medical Association in 1847; but it was not until the

brilliant report by Abraham Flexner, *Medical Education in the United States and Canada* (1910, commissioned in 1908 by the Carnegie Foundation for the Advancement of Teaching), that reforms became widespread. Specialized graduate training in surgery was virtually unknown in the United States until the opening of Johns Hopkins Hospital in 1889, and the establishment there of a rigorous residency program.

Selecting a surgeon

It is clear that during the past 50 to 100 years the role and activities of surgeons have changed dramatically. During this period of time, specialization has developed, and there has been a tendency toward superspecialization and fragmentation of surgical services. It is often difficult for the patient to know exactly who treats what disorder and how a good surgeon, experienced in a specific problem, can be identified. In each city or county, the local medical association can help the patient find the right surgeon. In Cuyahoga County, the Academy of Medicine of Cleveland has a phone-answering and consultation service to help guide prospective patients. If there is an excellent hospital or clinic in the area — and Cleveland has several — the patient can call that institution and ask to be referred to one of the surgeons associated with it. Friends or relatives who have had operations can be consulted. Family physicians and specialists in internal medicine or other medical specialties can often provide information on the reputa-

tion and experience of various surgical specialists.

Finally, when a patient meets a surgeon, he should pay some attention to his credentials, where he trained, his residency experience, his years in practice, and whether he is certified by the appropriate American or other specialty board. The personality of the surgeon is important in choosing a surgeon and in assessing his surgical skill. One hopes for a surgeon of experience and good judgment, not too elderly, with the wisdom of years but without the frailties of age.

The education of surgeons is an ongoing process and surgeons probably reach their prime somewhat later than professionals in most other fields. Most surgeons are in their late 20's or early 30's by the time they finish their residency training. By the age of 40, they should have achieved a level of skill, judgment, and wisdom which should be in full maturity until the age of 60 or 65, when declining health, vision, or manual dexterity begins to take away some skills. During these years of active and vigorous surgical practice, it is important that the surgeon continue his own self-education through attendance at meetings, enrollment in postgraduate courses, and the reading of surgical journals.

At the present time, surgery as practiced in the United States is probably the best in the world. The educational processes described here should maintain this superiority in years to come.

NOTES

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²G. D. Otis and J. R. Weiss, "Patterns of Medical Career Preference," *Journal of Medical Education*, 48 (1973), 1116-1123.

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⁴S. Budner, "Intolerance of Ambiguity as a Personality Variable," *Journal of Personality*, 30 (1962), 29-50.

⁵Similar findings are reported by B. S. Linn and R. Zeppa, "Values and Attitudes Related to Career Preference and Performance in the Surgical Clerkship," *Archives of Surgery*, 117 (1982), 1276-1280.

⁶A.E. Crowley, "Eighty-second Annual Report on Medical Education in the United States: Graduate Medical Education," *Journal of the American Medical Association*, 248 (1982), 3271-3275.

⁷Quoted by J. Bordley, III and A. Harvey, *Two Centuries of American Medicine* (Philadelphia: W.B. Saunders, 1976), pp. 27-8.

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LANGUAGES OF THE WORLD

IRANIAN

A 2,500-Year Panorama

by John A.C. Greppin

In the following survey, Dr. Greppin, a professor of English at Cleveland State University and internationally known scholar of historical linguistics, not only gives an account of modern Persian and other Iranian languages, but also looks at this language family from a chronological perspective that reveals the evolutionary process by which all languages are constantly changing.

When the U.S. Embassy in Teheran was seized several years ago and the young zealots of the Ayatollah Khomeini were shouting anti-American slogans, they were doing so in a language which is a near relative of our own. Persian or Iranian is a member of the Indo-European family of languages, on the same level as Armenian, Albanian, Greek, Balto-Slavic, Italic or Celtic, and therefore much closer to English than such tongues as Arabic or Turkish, that are spoken in countries near Iran. Persian also is the language of such poets as Omar Khayyam, Hafiz, and Firdausi.

We say that languages are related when they have developed over the centuries from a common "parent" language. Such languages have many words in common, which differ in ways that may be explained by amazingly consistent laws of sound change; their grammars are also similar. English, as a member of the Germanic sub-family of Indo-European, has many words in common with its near relatives. English *daughter* is *Tochter* in German, *dottir* in Icelandic, *thugater* in Greek, *dokhtar* in Persian; whereas it is *bint* (girl) in Arabic (this word is also used in Persian) and *kiz* in Turkish. Persian is written in Arabic script (as was Turkish until 1924 and as is the Urdu of Pakistan) for political rather than linguistic reasons.

The living Iranian languages, which include primarily Persian, Kurdish, and Baluchi, as well as a host of dialects, are spoken by people whose recorded history extends back over 2,500 years. At their greatest extension, speakers of Iranian languages inhabited the lands between western China and modern Iraq. In modern times this range has been reduced: Iranian speakers are found no further east than Afghanistan, extending north into the southernmost parts of Soviet Central Asia. In addition to the Persians, Baluchis, and Kurds, modern speakers of Iranian languages include Afghans, Ossetes, the Tajiks of the U.S.S.R., and the Wakhi, Sanglechi and Shughni people, little known tribes of the High Pamirs.

Persian is the best-known Iranian language, but it is far from pure because from the seventh century onward it absorbed a very large number of Arabic words. This Arab influence, following the rise of Islam, changed the speaking habits of the Near East and North Africa. Aramaic and Syriac quickly passed to near extinction under the onslaught of the tongue of the prophet Muhammad; the Berber languages of North Africa also gave way before the evangelism of his followers. Within scarcely a century the once unimportant Arabic language had spread over 5,000 miles, in a broad continuum from the Atlantic Ocean to the Persian Gulf. It was the infusion of this Arabic vocabulary that constitutes the point at which Middle Persian becomes New Persian, and the dialect of the province of Fars (a southwest dialect) becomes the standard. The inadequate Middle Persian alphabet then gave way to the script of the Arabs.

By the ninth century the Persians had fully absorbed the Arab impact and had been able to redefine themselves within the new social and religious context. Their language reflected the success of Islam, their poetry was dynamic and imitated by lesser cultures, and politically the Persian language dominated the land from what is now Iraq to Afghanistan. And the language which the Islamicized Persians began to write, after its Arabic infusion, remained remarkably stable, changing little until the present.

It is impossible to specify the extent of this Arabic intrusion into the language. Certainly the Arabic words were of interest for more reasons than the obvious religious ones. Arabic vocabulary simply was more pregnant than the Persian; words containing new concepts stimulated the Persians, and the prestige of using Arabic words in speech and writing was enormous. Some Persian literary forms became virtually a series of Arabic words connected by Persian syntax and verb endings. And though the Persian word for "daughter" is *dokhtar*, a father would now as often call her by the Arabic *bint*. It was this artificial Arabicization that the nationalistic poet Firdausi rebelled against in his epic poem *Shahnameh*, for in it he strove to keep his Persian pure of Arabic intrusion. His effort at purification, though it produced a great piece of literature, was unsuccessful in stemming the Arabic flow. New Persian became a mixed language.

The Iranian peoples have left extensive literary records. The Persians learned to write from the Assyrians, but instead of copying the syllabic cuneiform alphabet of the Assyrians, they used an alphabetic script which was better adapted to Iranian. The Old Persian script, also being cuneiform, however, had a severe limitation: it was more suitable for being incised on the face of stone cliffs than written on paper. In 332 B.C. in the reign of Artaxerxes III, the use of this script was abandoned, and knowledge of how to read it soon disappeared. Not until the late eighteenth century did European interest turn to the antiquities buried in the broiling sand of the Near East, where some of the Old Persian inscriptions were found. The translation of Old Persian inscriptions by one Major H.C. Rawlinson in 1846 was a major breakthrough in Oriental studies, for Old Persian was the first of the languages written in cuneiform to be deciphered.

The earliest examples of Old Persian go back to about 550 B.C.; they are mostly inscriptions praising the Achaemenid kings. The Avesta, sacred book of the Parsis composed by Zoroaster (Zarathustra), dates from a few years earlier than this. It is written in a closely related Iranian language now called Avestan, after the text in which it is found.

The grammar of the old Persian inscriptions and the Avesta is not unlike Latin. Old Persian and Avestan have a well maintained case system which, like Latin, marks the function of a noun in the sentence not by its position in the sentence but by the addition of a special ending to the noun. Thus, the Avestan word for "sacrifice," *yasno*, become *yasnem* when used as a direct object; to say "of the sacrifice," you use *yasnahe*. Avestan has all the cases that Latin has, plus a separate instrumental ("by means of a sacrifice") and locative ("at the sacrifice"). It is interesting to observe how close Avestan is not only to Latin, but also to Sanskrit, another Indo-European language, in which the sacred Hindu scriptures are written. The following is a comparison:

Avestan: *Zaota yasnai imem mainyum dadaiti.*

Sanskrit: *Hota yajnaya imam manyum dadati.*

Latin: *Flamen sacrificio eam "mentem" dat.*

English: The priest (to the) sacrifice this soul gives.

As can be seen by this example, many of the word endings in the three ancient languages are similar, and their relationship is evident, particularly between Sanskrit and Avestan. But a knowledge of one language only aids, it does not insure an understanding of the other. They are as close as Spanish and Italian.

By the fourth century B.C., when both Old Persian and Avestan were replaced by vig-

orous new western Iranian languages, loosely called Middle Persian (in fact a welter of closely allied north and west Iranian dialects), a considerable literature was developing, including Zoroastrian religious commentaries, histories, belles-lettres, legal texts, and biographies. Case endings were disappearing in Middle Persian, and word order changed to a pattern that was not as baffling to a Western eye; there was more reliance on prepositions than on cases to convey meaning. The verb system became immensely simpler.

The written form of these dialects also got rid of most of the letters of the alphabet. The best known of the Middle Persian dialects, Pahlavi, used writing based quite clearly on the Avestan alphabet. But, while Avestan had an inventory of 46 letters, Pahlavi had only 13. Since there had not been any significant reduction in the sounds used by the speakers of Northwestern Iranian in the fourth century A.D., Pahlavi had introduced a system of writing that was immensely ambiguous. A single letter could have numerous phonetic values. For example, ">" can stand for G, D, or Y, and if doubled (>>), can equal S. Thus this sign, written twice at the beginning of a word and followed, for instance, by the letter "l" (which can also stand for R) can be read as *dagr* ("long"), *dyl* ("heart"), or *sar* ("head"). Pity the modern student trying to read this language; if these three words were unknown to him, much time would be spent looking up such nonexistent words as *gadr, *dagal, *yadal, *sal, etc. [The asterisk is the linguist's way of indicating hypothetical or incorrect forms.]

Further complicating the study of this already puzzling alphabet is the existence of loan words from Aramaic, a north-west Semitic dialect similar to Hebrew. Middle Persian even uses the spelling of Aramaic words when the Middle Persian equivalent would have been pronounced. Thus the verb "to be" is pronounced in Middle Persian as *bavam*, *bave*, *bavet*, *bavem*, *bavet*, *bevend* ("I am, thou art, he is, we are, you are, they are"), but it is written as if it were an Aramaic word: *yhwwn-m*, *yhwwn-yh*, *yhwwn-yt*, *yhwrom-ym*, *yhwrom-yt*, *yhwrom-d*. This double writing of Aramaic creates further problems when we realize that Middle Persian letters can stand as easily for an Aramaic word as for an Iranian word. For instance, the letters MN can be read as Persian *man* ("me") or as Aramaic *min* ("from"), which would have been pronounced *az*, which also was the Middle Persian word for "dragon"!

New Persian is pretty much a direct continuation of the Old and Middle Persian languages with the large infusion of Arabic vocabulary that has already been noted. In this panorama we have a splendid opportunity of observing the growth of 2,500 years of literacy. We learn some interesting things. Though the well developed system of cases was clearly lost in

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Passage from *The Epistles of Manushchihir* (ninth century A.D.), written in Middle Persian alphabet modeled after Avestan script.

Middle Persian times, in the New Persian language we see what could be interpreted as a re-nascent case system. A new form has developed to denote possession. It can be seen in the names of Iranian ports *Bandar-i Pahlavi* or *Bandar-i Abbas*, where the letter *-i* ("of") becomes an extension of the noun to which it is attached.

Modern Persian is now spoken as a first language in most of Iran and in west and central Afghanistan. It is still taught as the language of poetry and elegance in Pakistan and Islamic areas of India, where a school graduate without a basic knowledge of Persian poetry in the original is considered uneducated. A dialectal variant called Tajik, with its independent literary tradition, is spoken in southern Soviet Central Asia. Most Persian speakers can understand a Tajik when he speaks, but find his choice of words and expression quaint and old-fashioned. The Tajik speaker is linguistically more conservative.

Kurdish is spoken by five million people in western Iran, in the rugged Taurus mountains and in the Soviet south Caucasus. In Iran, northeastern Iraq, and Turkey, the Kurds are a repressed people without newspapers or radio stations. Only in the U.S.S.R. is their language written in newspapers, heard over the air, and used in state-supported classrooms. Inhabiting a mountainous area and living a largely nomadic life, the Kurds are a mysterious people even to their hosts and neighbors, the Iranians. They come and go in the smaller western towns, the veiled women shopping for supplies. The men wear the baggy shalvar trousers seen also in rural Turkey; the women are adorned with bright jewelry, frequently coins or gold worn around their foreheads. Unlike the Persians, they are Sunni rather than Shi'ite Moslems, and are not quite the rigid followers of the prophet that we find elsewhere in Iran.

The Kurds are an ancient people, and so is their language. Strabo, the classical Greek historian, mentions them, identifying them as the *Karduchoi*. These hardy people have survived, keeping their individuality in a sea of Arabs, Iranians, and Turks, but they have borrowed numerous words from their hosts. The Kurdish vowel system is considerably richer than that of Persian. Whereas a native of Tehran gets by with only six vowels (*a, i, u*, each long and short, as in Arabic), some Kurdish dialects have up to seventeen pure vowels, five separate forms of *a* alone. Kurdish tends to be a bit more guttural than Persian. Whereas the Persians are content with a simple *h* sound, the Kurd feels he must reach deeper into his throat to produce an *h* that would pass for the final sound in Scottish *loch*. The Persians say *bareh* ("lamb"); the Kurds put forth a muscular *barkh*.

The Baluchi people, some one million in number, live in southeast Iran and adjoining Pakistan and Afghanistan. Just as the Kurd is a step lower on the cultural ladder than the Persian, so the Baluchi tribesman is lower still. Their literature is so poorly developed that one can not say what standard Baluchi speech is, so lost is it among a maze of competing dialects.

The dialects spoken in the Pamir mountains are among the least studied of the world's languages. So isolated are some of the tribes of this region that Islam came to them only in the nineteenth century. Languages such as Sanglechi, Wakhi, and Shughni are indeed rare. Wakhi, one of the more numerous, has only 10,000 speakers (the number of people living in Conneaut, Ohio), while Ishkashmi has perhaps a surviving population of 200 speakers. The ruggedness of this area inhibits contact between tribes from one valley to the next. Gradually, over the centuries, the eastern Iranian dialect from which they are all descended developed into various separate languages. Sanglechi and Munji are two distinct languages, mutually incomprehensible, yet the Munji people and the Sanglechi are separated only by a mountain pass.

There is no written literature in these languages, though there is, as in almost all languages no matter how culturally backward, a well developed oral poetry (frequently even a tribally designated poet laureate) and a voluminous folk literature. But it is all oral; like the Homeric epics, the literature lives only in the memories of its speakers. When the last one dies, both the literature and the language itself are extinct.

Robert V. Bruckshaw

The Art of Building Admiralty Models of Ships

Building models of ships is an exercise of art, as the dictionary defines the word: skill, the ability to make things. We have all seen beautiful works of art, and we have also seen daubery. In some of the old Admiralty models dating back to the 1600s, the carving has been reported to be the work of Grinling Gibbons.

There are models of ships that only one person in a million can really appreciate — and then there are ship-models that only the ignorant can admire. Such a ship-model is typically made by a sailor or a ship's carpenter who understands little of the craft; it is something to suggest a sea atmosphere for interior decorators, so far off scale that a scale equation is never mentioned. Or a ship-model can come in a box all "researched," precut, and twenty-five percent formed, like the paint-by-number sets.

Admiralty models were a sort of three-dimensional blueprint created by artists for British shipbuilders or naval architects for presentation to the King and Admiralty Board as a means of persuading them to provide money to build the ship. The model represented a new ship design, possibly one carrying more cannon or measuring a few more feet in length. The planking below the wales and on the upper deck was omitted to show the construction and the lines of the hull. These models were fully carved, painted, and gilded to please the eye of the King and the Board. Since the design of the rigging was changed

substantially only about every twenty years, the ship's hull was all that it was necessary to present.

After approval by the King and Admiralty Board, someone might continue to work on the model and rig it, maybe as a record for posterity. After launching, the model could be given a name. Modern Admiralty models are carefully researched replicas of historical ships. If a model, however well made, is not based on an actual ship, for that reason alone its value is automatically half that of an Admiralty model. The prices of modern Admiralty models range from about \$15,000 to \$80,000.



My own fascination with ship models goes back to my boyhood in Iowa. In the beginning it was just a matter of waiting till the moment before the last rain drop was about to fall, then making a mad dash to the wood lot to find six or eight sticks or chips, then down to the stream at the bottom of the hill. The amount of water from the surrounding streets and yards didn't last for more than an hour, but the small pools left behind would last for four more days. My sticks and chips were the finest old Spanish Galleons, or large battle-ships such as I had seen in the movies. Even a stick or leaf floating in the gutter would give me a five- or six-second nautical dream. Every once in a while I see people stop and watch a leaf or something float by. I don't know what

Robert V. Bruckshaw, internationally known marine artist specializing in Admiralty models of ships, learned cabinetmaking, blacksmithing, and gunsmithing as an apprentice to J.W. Davis in Centerville, Iowa. He learned patternmaking at the Hercules Manufacturing Co., and drafting at M.G. Hall Engineering Co., both also in Centerville. He attended Dobbs School of Drafting in Libertyville, Illinois, and night school at the Toledo Museum of Art. His models are in a number of private and corporate collections throughout the country. Four Admiralty models are in the National Museum of History and Technology, Smithsonian Institution; one of the four, the CS Confederacy, was on tour with a Smithsonian exhibit to leading museums of Europe. He has written several articles for Model Shipwright (London) and for Nautical Research Journal. A native of Centerville, Iowa, he has made his home since World War II in Toledo and now in Norwalk, Ohio.



they are thinking, but I like to believe they are seeing frigates and battleships, too.

In those days everyone had a wood lot full of limbs and trees cut down for firewood. The wood was cut into lengths not by a chain saw but by the ax. The cut was angled to make for easy cutting, so an eight-inch-thick log would produce chips sometimes eight inches long. If the chips were not taken in for kindling, the long pieces were candidates for a ride down the stream to who knows where.

Where the idea of placing a sucker stick for a mast and making a paper sail came from, I don't know — probably from my older brother or some of his friends. I was making "boats" from wood shingles with a rubber-band paddle wheel long before I ever saw the idea in print. I guess this was the beginning of the time when I began to lose some of my imagination about sticks and chips. But I don't think I have ever built a finer model of a ship than those sticks and chips.

One of the first books on ships that I read was Francis J. Reynolds's *The United States Navy from the Revolution to Date* (1915). It came with a magazine subscription from F.P. Collier and Son. I don't know when I started going to the public library — I was probably forced to go for a school assignment. But about the only library book that had any information on ships was the encyclopedia. The contents of libraries are more or less determined by their location, and this was in the middle of an Iowa corn field with coal mines scattered close to the railroad lines. A remote place for naval interest in those days.

Being born and raised next to a lumber yard accounts for my interest in wood. The mines around the county were mostly shaft mines that needed a great deal of large timber, both for boxing in the shafts and for making the runners of the elevator. There were timbers 12 in. x 12 in. and 6 in. x 6 in. x 32 ft., and other sizes like 3 in. x 12 in. x 24 ft. So visualizing large timbers while planning a model has never been one of my problems. I don't remember a warped piece of timber in the whole yard.

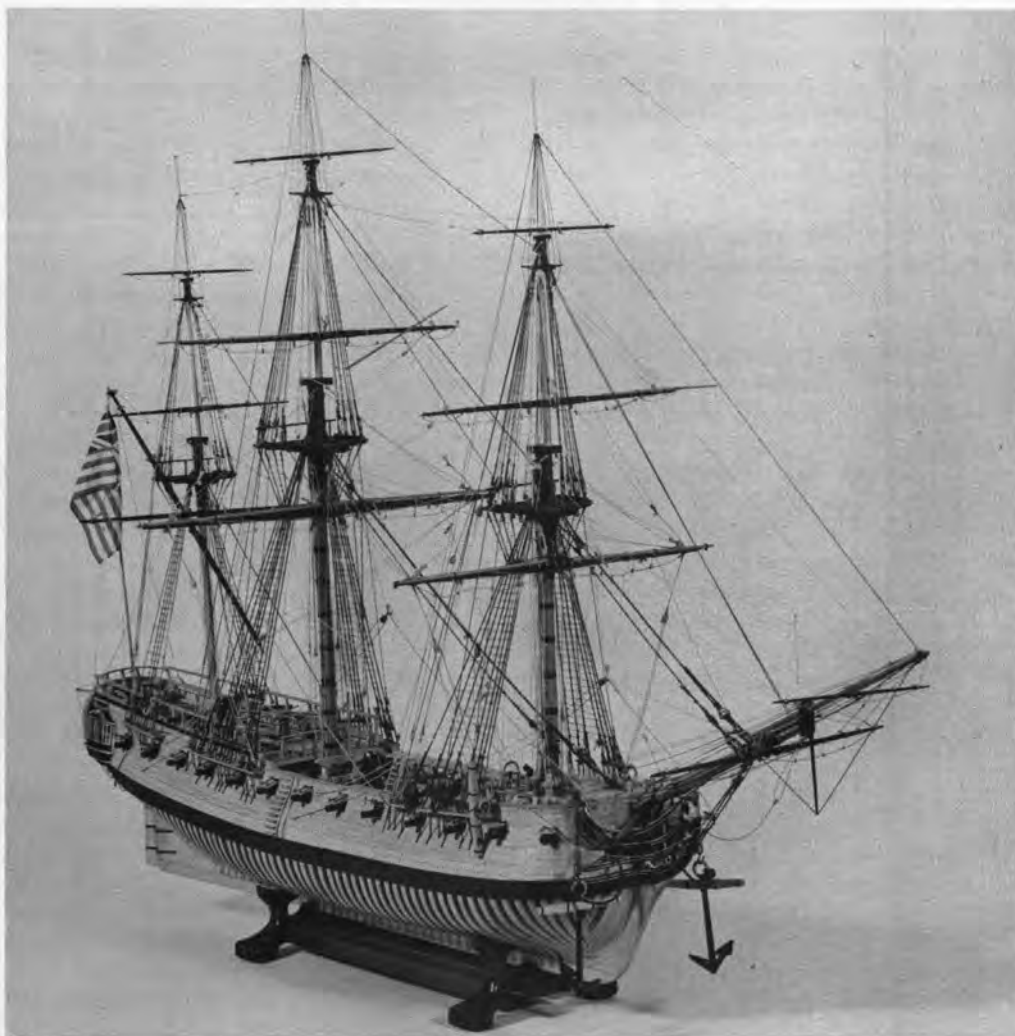
I received a lot of encouragement from my high school mechanical drafting teacher. I was never fortunate enough to see his finished models, but he had the hull of a merchant ship, probably an Indiaman, in his office. I never missed a chance to look in at this model every time I passed his door. I guess he

started me on the larger scale by explaining the improvement in a scale 1/8 in. to 1 ft. over 1/16 in. to 1 ft. He also said that the better models such as museum models were built in the scale of a 1/4 in. to 1 ft.

At the impressionable age of ten, I went with my mother and brother to visit friends for a month in Niannamo, Vancouver Island, B.C. Just a little way past the old fort tower, behind the hotel our friends owned, was a boat shop. I don't remember the size of the shop, but I do remember that the long row of shining brass propellers hanging on the wall and the smell of the wood used for repairs and new boats made me feel I had found a place where I could stay forever. I can remember models of sailing yachts being carried into the hotel, probably on their way to some regatta. On the return home, we came by way of Vancouver, where we made connections for the Canadian National Railroad. Our hotel was just across the street from the train station and around the corner from a dock. Sitting in a large showcase in the end of the station was a large model of a steamship. I guess this was my first look at 1/4-inch scale model: it was a model of a ship that was actually berthed around the corner, *The Empress of the Orient*. That conjunction made a lasting impression on my imagination.

Modelmakers in this period when I was beginning, up until the end of World War II, were more or less limited to the plans and information published in a few magazines. I remember nagging the local photographers for their old negatives, which we dissolved in acetone to make our adhesive, thick or thin. About this time I purchased from a publishing firm in England a set of plans for building a model of the *H.M.S. Victory*, 1805. The hull for the *Victory* was almost finished when I learned that plans for the same ship were available from the National Maritime Museum in Greenwich, England. Why I sent for a copy of these plans, I don't know, but it was a blessing. The plans from the Museum were authentic, not the imagination of some draftsman from a publishing house. The differences were many; for example, I had to fill in all of the gun ports I had cut, and relocate new ones. This cured me of using second-hand information.

After my family moved to Toledo, the Public Library and the Toledo Museum of Art improved my access to information. Here I



The Continental Frigate *Raleigh*, 1776: Admiralty model by the author. Figurehead of Sir Walter Raleigh can be seen just above anchor. Note the omission of planking below the wales (gunwales) to reveal the ship's construction. Photo, The Smithsonian Institution.

found such names as Howard I. Chapelle's *The History of the American Sailing Navy* (1949), *American Sailing Ships* (1935), and *American Small Sailing Craft* (1951); G.S.L. Clowes's *Catalog of the Models in the Science Museum, London, England* (1930-32); L.G. Carr Laughton's *Old Ship Figureheads and Sterns* (1925); C.G. Davis's *The Built-up Shipmodel* (1933); F.C. Bowen's *From Carrack to Clipper* (1927); A.G. Vercoe's *English Warships in the Days of Sail* (1933) — all first editions, not someone else's interpretations. Later I found out it would save money if I purchased copies, even though they were becoming rare, rather than paying all the bus fares to and from the library.

It is very important that the correct pieces of equipment be used only for the exact time that the model represents. My own models always represent the ship, if a hull model, at the time of launch; and if rigged, at the time it finished fitting out. It is well known that some captains made changes after they were at sea, sometimes based on experience, to improve the sailing qualities, sometimes just on whim. Discovering the specifications of an old ship is a major job of research. Reliable books are few, and most of them today are on the booksellers' "rare" lists. Most good books will have a useful bibliography, often divided into primary, secondary, and modern sources.

Once in a while you will find a modern author who will stick to facts, but the majority will wander off into some fantasy of their own. I remember one author who was so carried away with the battle sequence, he gave two different descriptions of the cannon on board the principal ship. Another author, in his description of the battle of Lake Erie, gave a tonnage for the vessels that would make them twice the size they actually were. When you are looking for useful books, another thing to worry about is whether the author is trying to cover forty years or the last thousand years. My own library covers only from 1690 to 1820, mostly the first half.

Fortunately some reliable records of old ships do exist. One source of information is what were called the Admiralty "Establishments." Every once in a while when a great number of suggested changes were sent to the Admiralty Board, they would publish for that year a set of changes known as The Establishment. The Establishment for 1720 on boats, for example, would include a list of various ship sizes or rates, showing what boats, sizes, etc., were to be assigned to each. The same with cannon — the size and number for each deck aboard each rate, the weight, length, etc. The appendix of Charles Derrick's *Memoirs of the Rise and Progress of the Royal Navy* (1806) contains a number of tables showing the various Establishments, even those that affected the length and breadth of different ships. The tables may cover seven to forty years. Here you can find when the transition from brass cannon to iron cannon took place, and for which sizes, when the sizes were adopted, and when they were discarded. Cannon, incidentally, were seldom alike; sometimes, after making a foreign port, ships would trade their cannon for more uniform pieces.¹

The Establishments also helped in maintaining some uniformity in the supply department. Imagine the extra work caused to fill an order for five or six different sizes of shot plus five or six sizes of powder charges! Ships of a much later date solved this by using cannon all the same size, at least in the bore. The supply problem could result in disaster, as when the French *Ville de Paris* on April 12, 1782, ran out of ammunition, enabling the British to capture her. (She saw action under British colors but was later lost in a storm off Newfoundland.)

A book containing specifications written in the time you are researching is a treasure. The size and the making of anchors can be found in David Steel's *Elements of Mastmaking, Sailmaking, and Rigging* (1794), which also covers blocks, sails, masts and yards. (But it must be remembered that Steel was writing about English ships and, although America had the same standards, we did from time to time vary when we thought our method was better.)

A very helpful book published in 1948 and again in 1962 is called *The Shipwright's Trade* written by Sir Westcott Abell. He starts with the dugout and early efforts in the fourth millennium, but goes on to devote considerable space to the Tudors, giving a brief account of the master shipwrights such as Burrell, Matthew Baker, Phineas Pett, Anthony Dean, the Stuarts, and William Sutherland.² Abell also describes the iron and steel ships, but over half of his book is on wooden ships. He explains the use of the ellipse in locating the hang of the deck, main breadth, rise and width of the floor, and other calculations. One can not emphasize too much the importance of precision drafting in laying out the lines for a model, the hundreds of points that are

¹It will be noted that the word *gun* has replaced the word *cannon*, even though they were still muzzle loaders.

²William Sutherland wrote the first English textbook for shipwrights, *The Shipbuilder's Assistant* (1711). A product of thirty-two years of study, it is the foundation for building models of ships. His praise of shipbuilding can be applied as well to model building at its best: "Tho' it so far exceeds several other Arts and Sciences that a proper and regular ship cannot be composed or built, without making several other Sciences subserviant to this; as Arithmetic, Geometry with the knowledge of the Laws of Motion, and the different increase between Rest and Greatest Motion, as also how Bodies gravitate; and to order the equipping, the experience whereof is the noblest Part, with out which all the rest would be but insignificant. But he that has acquir'd both the Theory and Practice makes an accomplished Shipwright." Sutherland makes a large contribution with his introduction of the mold loft, for which he draws each frame and forms a pattern for each frame with the cutting-down angle, before assembly. In Sutherland's original, a copper plate is drawn to the standard of 1/4 in. to 1 ft.



Author's Admiralty model of *H.M.S. Britannia* (1682, rebuilt 1719), unrigged.

picked from one drawing to another to position the lines that form the shape. Remember, fillers—and paint to cover the fillers—are not used *ever*. If it is a bad joint, the only thing to do is to dismantle and rebuild the section.

I remember my research on the figurehead for the model of the Continental frigate *Raleigh*, 1776. The figure was naturally supposed to be that of Sir Walter Raleigh. Well, the librarian found six or seven books about Raleigh and in five of them were copies of paintings of Raleigh. They were so different that I am sure in real life they would never have recognized each other. So, from all five, I made a carving for the figurehead. I used David Steel's book for the details of the rigging. Though the book was not published until 1794, the twenty-year difference isn't important, since an idea had to have been in use for twenty years before anyone had the nerve to write about the facts. The lines for the model were taken from Chappelle's *History of the American Sailing Navy*. This plan was drawn from an Admiralty plan made after her capture. It was a practice of most navies to take the lines off any captured ship that showed good sailing qualities. The carving on the stern was taken from Laughton's *Old Ship Figureheads and Sterns*. I made my own lines and cables from linen yarn; these were three-, four-, and nine-strand ropes, left and right

twist, depending on their specific purposes (see photo p.61).

All my life I have wanted to make a model of a battleship in 1/4" scale, but the hard fact that a model of this size would be in the neighborhood of twenty feet long, sort of put this idea back on the shelf. After building the model of the *Raleigh*, though, I realized that I could build a model of a battleship if I went back two hundred years. I had on hand many photos of models of ships as well as the catalog of the National Maritime Museum. From this I could select a model that I would like to build. This was my first mistake. There wasn't enough information about the ship I selected, the *H.M.S. Britannia*, 1682, 100-gun. The model in the museum at Annapolis shows the ship as she appeared after her rebuilding in 1700. In the *Van De Velde Drawings* compiled by M.S. Robinson for the National Maritime Museum (1958), plates 603 and 610 do not show enough detail. Mr. Arthur Tucker of the NMM suggested that I use the drawing 6317/4 showing her as she was rebuilt in 1719. When the plans arrived I found they were copied in the scale of 3/16 in. to 1 ft. This meant a re-drawing of all lines to increase the scale to 1/4 in. to 1 ft. No details of the carving were shown on the drawing, so I appealed to Dr. R.C. Anderson, a well known authority on this period in England, whose description of the stern and figurehead carvings as well as



Details of author's model of *H.M.S. Britannia*, showing elaborate carving. *Left*: Bow or head; *right*: stairs and railings.

many other details was an inspiration to finish the model. He sent me a photograph of William Kent's engraving taken after Thomas Baston's painting, noting that Kent was very precise and authentic in his details.

The figurehead was a carving of a double-headed beast, its chest bearing a medallion of the Hanover family with the familiar GR for George Rex (George I), who became King of England in 1714, the same year the *Britannia* went in for rebuilding. Back of the double-headed beast are two angels on the port side and two on the starboard, one of whom bears a sword. Below the feet of the beasts are the heads of fallen kings and other rivals, trailed by head and shoulders of a Mer-boy. The deep four-rail headhead of this period had its timbers and rails covered with various vine work and heads.

All the information I could find about this period still only gives two "seats of ease" located on the head. But anyone who has been close to the British military knows about the contrivance known as the "honey-bucket," of which, for a crew of seven hundred, there must have been several dozen located strategically about the different decks. An odd structure, with three uprights crossed by a beam, was another puzzle, until a Mr. John R. Stevens, of the Maritime Museum of Canada, Halifax, Nova Scotia, told me that the structure was used for hanging. I researched the location of the deadeyes and the channels in various sources including R.C. Anderson's

book, *The Rigging of Ships in the Days of the Spritsail Topmast, 1600-1720* (1927). The research on the stern carvings, including information on the mythological figures represented on them, required help from several librarians in Toledo plus the librarian at the Toledo Museum of Art and from Dr. Worfield of the Smithsonian Institution, who was especially helpful on the dress of the cuirassier on the quarter pieces.

Each model has presented different problems and different solutions. For the *Ohio*, a small schooner built in 1810, I sent out a mass mailing to all possible sources of information, listing the facts I had (some of them conflicting) and the facts I needed to know. The Cleveland Public Library — located only a few blocks from the old shipyard — was the main help on this one.

After various misadventures with the first twenty-five years of the nineteenth century (when ships-of-the-line were becoming like gun platforms), I began to work on the first naval ship to be built in North America: the 52-gun fourth rate *H.M.S. Falkland*, built in Portsmouth, New Hampshire, in 1692. Contrary to some historians, just seventy-two years after the Pilgrims landed we were building ships 128 feet between perpendiculars, many times longer than the *Mayflower*. The plans for a *Falkland*, 1720, had been located in the National Maritime Museum for some time, but they had to be studied to make sure this was the same ship and not a new ship. In



The U.S. schooner *Ohio*, built in 1810 by Murray and Bigsby of Cleveland. Originally a supply ship, in 1812 she was converted into a war vessel for operations on Lake Erie and armed with one long 32-pounder on a pivot.

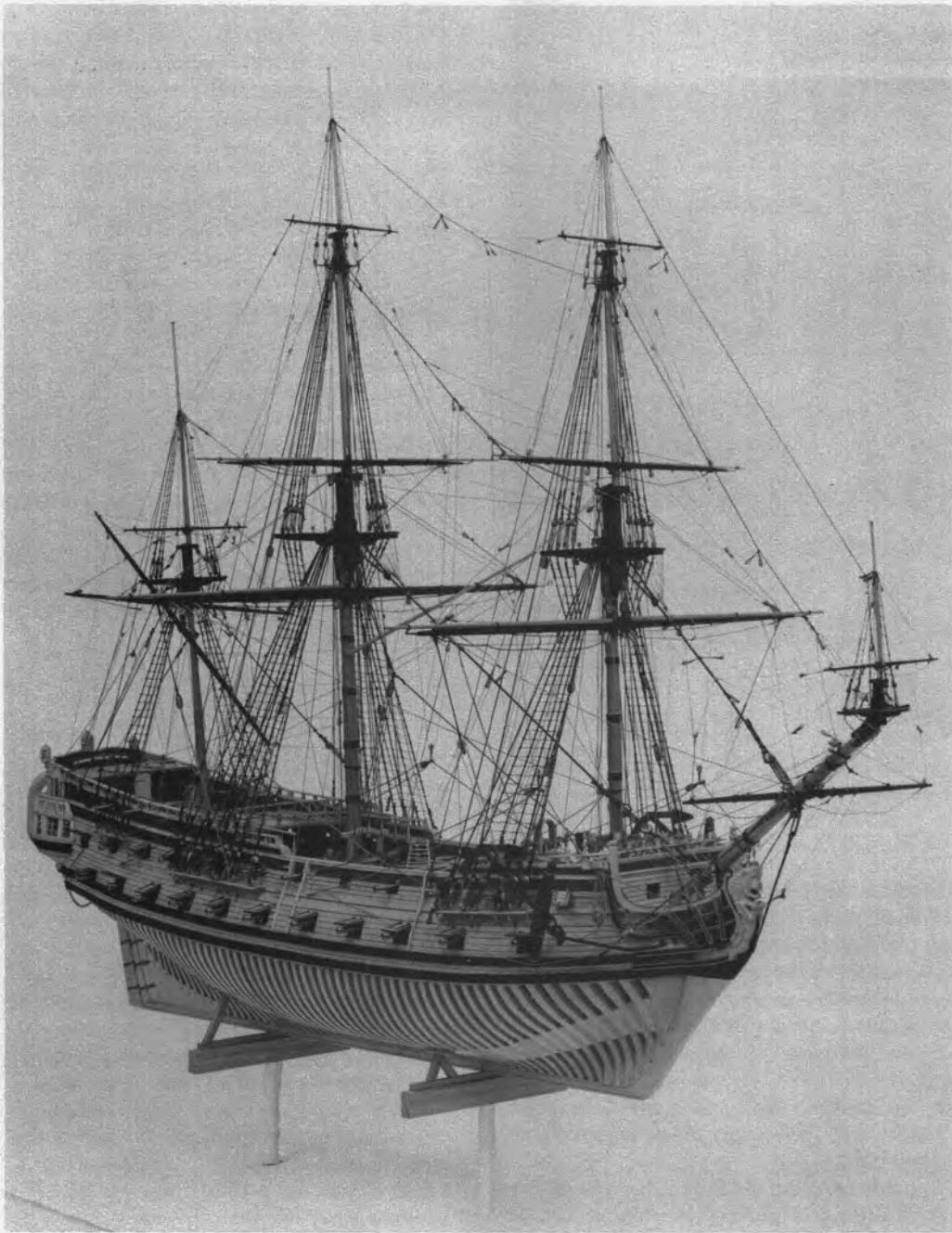
the margin of the tracing or drawing of the 1720 ship was found the date 1701. This was construed to be the date that the lines were taken off the ship when she was being readied for the West Indies. After a meeting with representatives of the Smithsonian Institution, it was decided to go ahead with a model of this ship. Our discussion of the pros and cons concerning the plans, the furniture, bulkheads, etc., lasted almost six years. The model is now in the Smithsonian's National Museum of History and Technology in Washington (see photo p.66).

My model of the *H.M.S. Serapis*, 1779, a 44-gun ship (see photo p.68), required more research on mythological figures. The *Serapis* is famous as the English ship that John Paul Jones captured while the *Bon Homme Richard* was sinking during the Battle of Flamborough Head, September 23, 1779, off England's east coast. The ship's figurehead represented Serapis, a god of the Lower World. I needed to learn whether his right or left hand was raised in the carving. Eventually, Mr. Charles Child, owner of Child's Gallery in Boston,

gave me the answer: in a painting by Robert Dodd it was the right hand, and Dodd, who took great pains in his search for detail, was a painter to be trusted. The carving on the stern was another matter. It involved the examination, under strong magnification, of a medalion celebrating the victory at Flamborough Head, letters to the Rijksmuseum in Amsterdam, and, finally, an appeal to the Department of Egyptian Antiquities in the British Museum. But I do believe that the most difficult part of the research was trying to locate a plan showing the lines for the hull of this ship. It was built in 1779, but plans of the date were nonexistent. I had checked the period six years before this to find a plan for the *H.M.S. Roebuck*, 1774. The date of the plan was 1773, and it contained a list of ships that had been built from this plan. In the latter part of the list, I found the name *Serapis*. So the plan was drawn in 1773 but the ship was not made until 1779. The habit I have formed to order more than one set of plans at a time, because of the time it takes to receive them, finally paid off.



Traditionally, Admiralty model hulls are made of boxwood or Swiss pear wood. I recall a friend of mine who likes to indulge in early American furniture and who once built a model of the *U.S.S. Constitution*. The work on this model was excellent; the joints fit perfectly. The only mistake he made was in the choice of wood: he used a maple, grown locally. Maple furniture lasts two or three hundred years, he reasoned, so why not a model? Well, Admiralty models are not made of maple, and that's that. There's no arguing with tradition. I have attended several national conventions that dealt with the woods used in building models and have tried to get an idea of what others thought about the use of maple, cherry, hawthorn, and other hard, dense woods. But because these woods don't have a history like the boxwood or pear, no one would venture an opinion. Whatever the reasons for their monopoly in model construction, it is true that boxwood and Swiss pear wood will take a beautiful finish, and after about a hundred years they develop a reddish patina. I have worked on models that were about two hundred and sixty years old. The cleaning requires great patience and experience as there is no known way this patina can be replaced.



Author's model of *H.M.S. Falkland*, 1692 (based on rebuilt version of 1720); first man-of-war built in North America. Model is now in the National Museum of History and Technology of the Smithsonian Institution.

Boxwood comes from Southeast Asia, Europe, and South America. I believe that the Asian is more dense, and the South American is clearer than the European. The purchase of the wood in the form of a log will give you more freedom as to size. Cost is by the pound so you may purchase some water. Boxwood can also be used for masts and yards as well as any other woods. For myself I have elected a wood for masts and yards known as Sitka spruce. The growth rings will vary from twenty to thirty-eight per inch, which makes a strong yard when reduced to a size necessary for the model. The fineness of the growth rings will insure at least two rings of grain in the small yard arms and so will reduce the chance of breakage.

The only acceptable finish is that of natural wood, i.e., a clear varnish or lacquer. The only paint required is the touching up to highlight various pieces. The black wales separate the upper half of the hull from the lower half, from which the planking is omitted. Which brings me to a point about the difference between modern models of modern ships and modern models of old ships. When I stand back and look at a battleship of today's size, the detail of the superstructure is overwhelmed for me by the massive plain hull. On an Admiralty model the absence of planking on the bottom half of the hull diminishes the bulky appearance. The area covered by the rigging, almost twice the size of the hull, also reduces the dominance of the hull. The model maker is not trying to cover the details of the hull, only to balance the whole model to be pleasing to the eye. The amount of gold leaf used on a model is minimal but most exacting. Although the drying time is long, I have always used oil colors because they are more in keeping with the prestige and the time required to build an Admiralty model.

Bleached linen yarn is used in the manufacture of the various sizes of ropes, lines, cables, and other cordage. Sometimes three-strand cord can be purchased in the correct size, but never count on it. Lay up the yarn in three-, four-, and nine-strand lengths long enough for the model. A machine for doing this can be found in journals and magazines dealing with models of ships. Rope sizes are given in circumference if you are using Steel's book. Actual sizes can range from 5/8" to 24"; these scale down to .0041" for the 5/8" and .1591" for the 24". Keep knots to a minimum;

splices can be worked in with the use of a crochet needle. What was spliced is spliced, and what was tied is tied. The color should be that of new rigging, as the model most of the time represents the ship at the time of launch. Black rigging came into use at about the same time as the copper bottom. Line is waxed to control the fine fibers that rise above the lay of the cordage.

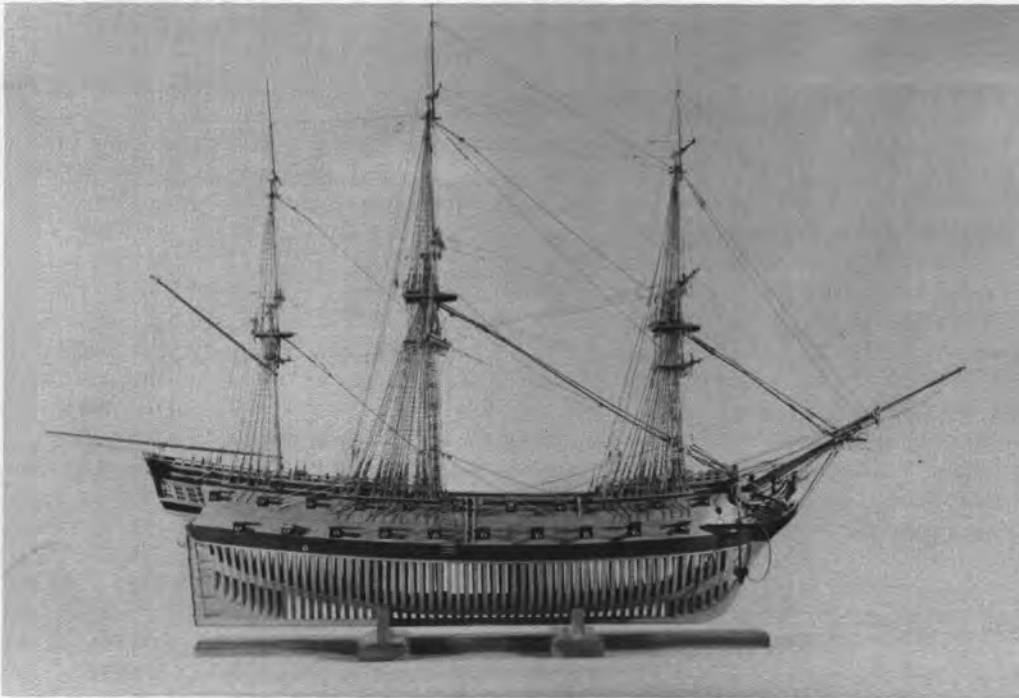
Glass is used in all lights and windows. Microscope slides are used because of their nonfogging qualities, and I have found that finger prints clean up easily. The cover slides have the same qualities and are better if you are going to mortise the glass in the frame. I might mention here that a small circular saw is needed so you can cut pieces .010" in thickness by .020 to .025" in width. Glass used in old models more often than not was mica. Window frames were sheet brass with the panes sawn out.

For fittings and cannon, brass is the most accepted metal. An artist restoring an old model sometimes will find that pewter was used, even in thin sheets for the hinges and strapping. What I have used and found in old models is brass with hard solder for connections. This is the acceptable metal for museums.

I have made almost nine hundred cannon since I started building models of ships. Each ship differs from the last in size of shot as well as length of barrel. When one ship will use seven-foot twelve pounders, the next will probably have nine-foot twelve pounders. Each difference in cannon length changes the length of the carriage, and if the port sill height is changed, the carriage height is also changed. There are so many differences that it is impossible to build models of two different ships from the same plan. Even the moldings around the stern and along the side are different. At first I thought that five or six molding cutters would be all that I would need; today I have over three dozen.

A variety of drawings must be made for each model, including the master drawing, which I keep on the board until the model is finished; many isometric sketches of various parts of the ship, dimensioned, of course; and overlays of the carvings.

Caulking is done with a hard black paper. Planking on the actual ship was finished so as to leave between the planks an eighth of an inch for caulking for each inch in thickness



H.M.S. Serapis, 1779, famous as the ship captured off Flamborough Head by John Paul Jones when the *Bon Homme Richard* was sinking. Note figurehead of the mythological character Serapis, with right arm raised. U.S. Naval Photographic Center, Washington, D.C.

of the plank. So a plank three inches thick would be beveled to lie $\frac{3}{8}$ " from its neighboring plank. Scaled down, the $\frac{3}{8}$ " space becomes .00076". Now about $\frac{1}{4}$ " of the caulking is left sticking out and later beaded over. This would make the visible caulking look like $\frac{1}{2}$ " or maybe $\frac{5}{8}$ ", which in the model would be .0104015" or .013015". The paper measures .008".

Because of the small scale, normal building methods are impracticable. Hidden metal fastenings are used to provide greater strength and permanence. Superb detailing depends upon how much time an artist has to

spend on a model. Maybe he has only a year because of today's prices, or, if he is very fortunate, he might land a commission for two years. That is still not enough time really to detail a model properly.

An enormous amount of time is required for the building of an Admiralty model, even when you don't count the time spent daydreaming or correcting mistakes, or waiting for the mails. Yet the finished product is an object of permanent and ever-increasing value, a veritable compendium of nautical information, and a work of art of great aesthetic appeal.



Fiction: Whistle Against the Wind

by Suzanne Hartman

"I don't know what shoes to wear," he said.

Frances looked at Cedric's feet and then at Rae. "His foot is all swelled up," she explained to her sister.

"Used to be this leg bothered me."

"That was affected by the stroke," Frances told Rae.

"But now it's this one swelling up. Think it's gout." Cedric raised his pants leg slightly.

"See how swelled up it is," Frances said to Rae.

"That's not gout," Rae said to her brother-in-law.

Cedric dropped his pants leg.

"You should see it in comparison to the other one," said Frances.

Cedric looked down and raised his pants leg again. Then the other one. Bunions bulged his socks. His right ankle ballooned.

"Wear your white ones," Frances told him.

* * *

He sat on the side of the bed and struggled with the white shoes. A drop of saliva hit his knee and he angrily wiped his mouth. He made an effort to hold in his lips. They had always protruded, and the upper one had little fangs of flesh at each corner, but now they protruded more and sagged a little on one side. Could hardly whistle. Laboriously he tied his shoes. His feet, Jesus, his feet hurt in the white shoes; in any shoes. He wanted to go to Nebraska. Christ he wanted to go to her. Now. But they were just going out to eat with Rae.

He limped into the living room. "There we are," Frances said. Rae smiled at him. She was a good-looking woman. Better all the time, too. Much better than Frances, though only a year younger. She looked twenty years younger. She didn't look a day over forty. Damn good-looking woman. He'd wanted to screw her for awhile a long time ago after her husband died and she had flirted with him a little, but that was as far as it went.

He had his now, anyway. Had had it for a long time. Sweet, hot, Elaine. "Well," he said cheerfully.

Frances looked at him expectantly.

"Well," he repeated, knowing what he wanted to say.

Suzanne Hartman has published stories in The Carleton Miscellany, Ladies' Home Journal, Family Circle, and several other national magazines. Two of her stories have been included in Houghton Mifflin and Allyn and Bacon anthologies. New stories will soon appear in Woman's Day, Accent on Youth, Confrontation, and The Kansas Quarterly. She has degrees from the Universities of Iowa and Michigan and won a Hopwood Award for Fiction at Michigan. For the last dozen years she has taught a workshop for minority writers at Karamu House and is founding member of the board of New Day Press, a Cleveland publishing company devoted to work by and about American minorities. She lives in Cleveland Heights with her writer husband, Andrew Byerley, and her daughters, Tanya, Elisa, and Lorien.



"Let's go then," Frances supplied.

"Let's go," he repeated. After repeating it, he felt better. Better and worse.

"We'll eat at the Chinese restaurant," Frances said. Rae nodded. Frances took Cedric's arm and pressed her breast against his elbow. "Let's go, handsome."

The swollen foot lagged and he longed to take off his shoe. "You want to try driving, Ced, or you want me to? Doctor says he's not to drive alone anymore," she told Rae. "No more long car trips alone, that's for sure."

The hell, Cedric thought. "I'll drive," he said and got in the car.

The streets of Burlington were lined with waving maples. Leaves shining in sun. They took the road along the Mississippi, hot and sparkling.

"Watch out, Ced," Frances squealed. Cedric had meant to avoid the squirrel, but the car squashed it.

"Oh Ced. That makes me sick," Frances wailed.

"No great loss," Rae said. "World is full of squirrels this summer. Sure glad you got air conditioning in this car, Cedric. Your face is beet-red. You better watch it."

"Well shit," he said slowly. "Hit a squirrel and you're a goddamned — a goddamned — you're goddamned."

"Calm down, now," Rae told him and frowned at Frances.

"Isn't this just a lovely day," Frances began. "Don't you just love that sun? Aren't you glad to be alive, honey, after that hospital? That was awful, Rae. Day after day, just sitting and thinking he was gone. He didn't say a single word for a week. Just stared. But now you're fine. Just that droop at the face and that foot. And he can't grip his hand very well either. Show Rae, honey. See, he can't really grip with that hand."

He put his hand back on the wheel and tried to concentrate on his driving. She never shut her mouth. Never. Was worse with Rae around. Couldn't tell one from the other sometimes. Except to look at. A lot of difference there.

"The doctor says he isn't to drive alone," Frances told Rae again. "No more trips alone, huh, honey?" she said, mashing her breast against his arm again and patting his leg.

"Definitely not," said Rae. "You can take it easy and let Frances drive. Just let her pamper you for a change."

He wondered if Frances had told Rae. Probably. Probably somewhere along the line she had blabbed all the details. He ached to see Elaine. He could do anything with her. Not even the movies he and Lester watched in the back room at the tavern were anything compared to her. He felt a wash of sweat under his arms and an uncomfortable heat in his head. After screwing her he felt so good. So good. He even felt better towards Frances. Not that he ever wanted to touch her again. Especially in the last few years since she had known about Elaine. Coming around with the sex books and saying how she would try and all that. Some of the things she had done made him sick. That strawberry jam. Christ. But he felt sorry for her. He had never been able to get in her good. She was so damn dry. How they had ever had the boys he didn't understand. It was just because he had been so ignorant and had needed her so much those first few years. He would have done anything to get at her. He had worshipped her every way. And she had acted like a bitch after the first few times. Never wanting it. Never. Always turning away. Always. For all those years, ten, twenty, thirty, all the way up to Elaine, he had never had anything but dreams and the lousy movies and his horniness.

And the shop. Now Lester was trying to take that away from him. If it hadn't been for Ced there wouldn't have been a shop. All these years it had been his life and he'd work there every day till he died too. Screw Lester. "Where we going to eat?" he asked.

"We told you. The Chinese restaurant."

"Oh yeah. I'll get some of that — that —" he could taste it, but he couldn't say it.

"Beef chow mein," finished Frances. "I want sweet and sour pork and egg rolls and egg foo yung. They always have homemade hot rolls on Sundays, too, at that place. Ced eats all of them. They call him their roll man. Now he's got his appetite back, he's eating like a horse. Gained fifteen pounds right back. He has to take that off again, the doctor says. It was his own fault he got that stroke. The doctor told him for years to take those blood pressure pills."

Ten years he told him. At least ten. He'd never do it. His own fault."

"Don't talk about him that way, Frances. He doesn't like that. You don't like that, do you, Ced? Not when he's right there sitting next to you."

Frances patted his leg. "Here we are," she said.

They went into the restaurant. The foot throbbed, and he took off his shoe under the table.

The waitress came over and placed a basket of rolls in front of him. "Hi, Cedric. How's my roll man?" she asked.

The pain in his foot dulled his appetite, but from habit he reached out, took the warm bread and stuffed it in his mouth. Frances and Rae looked at the menu and ordered.

Cedric slurped his soup. "Cedric. The noise," hissed Frances. He continued without pause until the soup was gone. When the covered dishes arrived, he scooped heaping steaming piles on his plate and, forgetting he wasn't hungry, ate without looking up.

"Ever since the stroke, he's eaten like that," said Frances in low tones across the table. "Just shoveled it in. Ced, you're shoveling it in," she said to him. "Just shoveling."

He didn't reply.

She nudged him.

"What do you want?" he asked.

"You're just shoveling it in. Like a hog."

He glared at her and went back to his eating.

"Rae," she said, nodding at Cedric.

"It makes me lose my appetite," said Rae to Frances. "Ced, you're making me lose my appetite." He didn't look up. A Chinese noodle hung from the corner of his mouth. He took the fourth roll from the basket and mopped his mouth with it before he swallowed it. He hiked the sore foot up on the chair opposite his. It felt better. He felt better. He leaned back in his chair.

"Eat and sleep. That's all he does. All he's ever done except for that shop," Frances said.

Cedric's eyelids drooped. She wishes.

"Never gave those boys any fathering," she went on. "I was mother and father."

"But he was a good provider," said Rae.

"Yes he was. And he'll die if he can't get back in the shop."

"You'd go nuts having him around all the time."

"No I wouldn't," said Frances. "I'd like it." She turned to him. "I'd like having my sweetie around all the time."

His eyelids closed.

"The doctor says he's not to drive distances anymore."

"You told me."

"So he won't be taking any more of those trips alone."

"Well, let's hope not," Rae said.

"Thank the Lord," Frances said and smiled at Rae. Cedric's head nodded.

"Been back to work, Ced?" asked Rae.

He opened his eyes.

"He went down Friday for the first time again. Only stayed two hours. Awful tired. Lester called and said, 'Frances, get this man out of here, will you?' 'Good luck,' I told him. 'Good luck getting that man out of the shop.'" She laughed. "Doctor says he shouldn't work more than two hours a day anyway," she added.

"He don't know anything," Cedric mumbled. "Can't do anything in two hours."

"What do you need to do?" asked Frances indignantly. "Been killing yourself in that shop for forty years. What thanks have you got from those brothers? Let them do it awhile. You take it easy. We'll travel. I got beautiful brochures on Mexico and Italy and Hawaii. Wouldn't you love Hawaii, Rae? I would. We'll travel. Whatever you want, honey."

I want to go to Nebraska. And I'm going. Those days before Elaine had moved away. Before she ran off with that son-of-a-bitch from Denver. Shithead. What did he have? He was married too. She said she loved both of them. Both Ced and the shithead. Well, he could un-

derstand that now. He cared for Frances too. But he would have married Elaine. He would have. He would have left Frances then. Yes he would.

Not now, though. He couldn't ever now. If he could have left clean. Left the town with Elaine back then and not seen the agony. But the agony, the tearing up Frances had gone through when she found out. Christ. He did love her in a way. They had the grandkids now. Their house. And she had nothing of her own. She hadn't worked a day in her life. She wouldn't be able to make it and he didn't have enough money for two. Barely enough for one wife. But back then he could have anyway. Back then he would have.

"Well," he said.

"Well, let's go," Frances said.

Cedric took his foot off the chair and tried to get it in the shoe. He couldn't.

"Let me help you, honey." Frances bent over and tried to force the shoe on.

"Ouch." He leaned over, picked up the shoe and stood in one stockinged foot. "I'll go this way."

"Oh, Cedric."

"Who cares," Rae said.

"I'll drive," said Frances. "You shouldn't drive in stocking feet."

"I'll drive," he said. He hobbled to the car and took the driver's seat.

"Bullhead."

Cedric jerked the car into gear and roared around the corner, the short way to their house.

"Watch out, Ced," hollered Rae. "That was a stop sign."

"So?" he said. "Nobody coming."

"Thank the lord for that," said Frances, shaking her head.

The car lunged forward, slowed suddenly and lurched into the driveway.

"Well," said Rae. "That was exciting."

Frances was white-faced. "Yes, wasn't it?" she said sarcastically.

Cedric limped into the house and slammed the bedroom door. He pulled off the other shoe and kicked them both under the bed, took the pill the doctor had given him and fell heavily on the pillow. His head felt funny. Like the wind was pushing through it. He closed his eyes and saw himself standing up in the back of his Dad's pickup, whistling against the wind. The sound left his lips and the wind took it and splayed it back in his mouth and whipped it thinly past his ears. He had loved it. He'd rest tomorrow and Tuesday morning he'd go into the shop at eight. Then on Friday night, he'd leave for Nebraska and stay the weekend. He'd call Elaine later this evening when the foot stopped throbbing and he could get to a pay phone. He hadn't talked to her since the stroke. He sighed and nestled into the pillow. He couldn't wait to get to the shop. Maybe he'd go in at six on Tuesday like he used to and get the machines going. Elaine would have married him if he had had enough money to support two households, or so she said, but he wondered if one man would ever be enough for her. Even now she occasionally visited the shithead in Denver. Even now. And there was probably some bastard in Nebraska too where she'd gone to live after awhile to be near her daughter's family. It didn't matter. Thank God he had found her. If he died tomorrow he'd be glad.

"Slut," Frances had screamed. "That slut. What does she have? Works in a tavern. Not even pretty." When Frances found out about Elaine, he thought she would kick him out. But she hadn't. She had just cried. For weeks. Not days. Weeks. She had said she needed him and wanted him and loved him so much she would just keep begging him to give Elaine up till he did it. Finally he told her he couldn't. He didn't want to leave the house and neither did she, so it was a standoff. But she hadn't given up. She had never given up. Never given up the hope that he would forget Elaine. "Not even pretty."

No. Not nearly as pretty as Rae, but what did that matter? She was warm. She sat with him after they screwed, just holding his hands. Asking about the grandchildren and the shop and laughing now and then. He knew he hadn't been the first from the tavern. And sure he had had to pay her. But only five or ten a week. That wasn't much for what he got. What if the stroke had done him in? He reached down and held his penis in his hand. Sweet, juicy

pussy. Christ was it ever. Safe and warm as an old chair, but sweet and oh Jesus when he got in there, he could not get enough. Neither could she. On and on. His cock was responding and he let it go at that. She would do the rest. She'd help him. And if it didn't work at all once or twice, she would laugh and put on an apron and fix them a pancake. And they'd go to sleep and do it in the morning.

He heard someone in the driveway.

"Ced," called Frances. "Lester's here."

Cedric zipped up his pants but stayed on the bed. His brother came in. "Hi. How you feeling?"

"Since when did you give a damn?"

"Come on, Ced."

"What's new?"

"Cy and me been talking to the doc."

"Yeah?"

"You're making too many mistakes, Ced. We got enough problems at the shop without you lousing things up more."

Cedric sat up. "What do you mean, mistakes?"

"You fouled up two orders Friday just in that little time you was there. We can't afford it. Bank's breathing down our back now."

"That's 'cause you and Cy is so goddamned — so goddamned —" the word finally came, "stupid."

"Shut your fuckin' mouth, Ced. Looked at yourself lately?"

"I built that shop."

"And now you're tearing it down." He lowered his voice, "We ain't going to last the year, Ced. Materials is fuckin' sky high. Cy and me are making plans to get out of it with our shirts as it is. Hope you got yours stashed away."

"Stashed away?" Cedric shouted. Frances came into the room.

"Stay calm, honey. You gotta," she said. "Lester, go home. You're getting Ced excited. Look at his face. Go on, get out of here."

"Stay away from the shop, Ced. We'll all have to split the losses as it is."

"Losses," gasped Cedric. "Losses — you —" but the words he wanted stayed in his head. Fools, cocksucking fools. Bastards. Goddamned bastards. Stupid, ignorant fools. Losses.

* * *

Frances gave him a tablet to calm him and brought him warm milk. She lifted his head and made him sip it, though he kept his eyes closed. For a moment, she held his head against her breast and stroked his hair. Then he slept.

When he woke up, he was undressed and under the covers and Frances slept beside him, snoring. His foot no longer throbbed and he felt rested. Only when he thought of the shop did pain whip through his head and make his ears sing.

He got out of bed and pulled on his clothes. Then he drove to the gas station on the corner to use the pay phone. When she answered, he found he couldn't speak. Finally he said hello and she said, "Oh, hi Ced."

He didn't tell her he had a stroke six weeks ago and lay in the hospital near death for two days and hadn't been able to say a single word for a week. But he did say he was leaving for Nebraska and would be there in the morning. She said, fine.

When he got back out to the car, Frances was sitting in it. She looked at him with tears in her eyes. He had used the pay phone lots of times. He thought it was better than calling from home. Frances had come down a couple of times five years ago, but she hadn't come lately. The tears rolled down her cheeks. He got in and shut the door. He drove to their house and left the motor running.

"Where do you think you're going, Ced?"

"I'll be back in a couple days."

"The doctor said you weren't to drive alone. Didn't you hear him say that? He said,

'Cedric, I don't want you behind that wheel at all, and if you simply have to drive, don't go alone. Your reflexes are lousy and may always be. Leave the driving to Frances.' He said that and you know it. 'Leave the driving to Frances.'"

"Get out and go in the house now. I'll be home in a couple days."

"No. I'm not going anywhere. And neither are you."

"I am. And you're not going to stop me."

"Wherever you're going, I'm going."

He looked at her in fury, the pulse battering his temple. He reached across her and opened the door. She closed it.

He got out and came around, opened her door and gently took hold of her arm. "Get out now."

"I'm not getting out."

"I'm going to see her, Frances. I have to."

"Then I'm going with you."

"God damn you," he said quietly.

"God damn you. If you don't watch it, you're going to have a stroke right here on the spot."

"A lot you care."

"I should care?" her voice rose. "I'd be so much better off with you dead. Better off in the long run."

"Bitch."

"Look who's talking."

They remained that way a long time, looking at each other. Once he reached in and tried to pull her out, but she hit him on the hand and hung onto the steering wheel.

Finally, feeling dizzy, he stumbled around the car, got in and took off.

Frances wept. "You can't still think of going to her," she said. "You can't. How can you after what you've been through? How can you? It's indecent. You're half dead. I wish you were all the way dead. I wish it. I do, Cedric. I wish you were dead so bad." Finally she just sobbed.

Ten miles out of town she told him to take her home. He turned around and she got out in front of their house. "I didn't think you'd do it to me anymore. But I guess you're meaner than any human being alive. Rotten mean, through and through. Don't expect me to be here when you get back. Don't expect it," she sobbed. "That is, if you get back, which I hope you don't," she screamed at him and slammed the door. She sat right down on the sidewalk in the pitch black. She sat there sobbing and he looked out the window at her. He looked at the house and back to her again. He left the motor running and got out. When he touched her, she bit his hand, but it was the numb one and didn't hurt much. He pulled her to her feet and led her to the house. He put her down on the couch and she trembled against his chest. "Don't go," she said. "Please don't go."

He pressed his mouth against her forehead. "You take care, Frances. You take care. I'll be back in — in —"

"A couple days," she said.

"Yeah. You take care, honey. Look at them — them things on Hawaii. You hear? I'll be back."

She sobbed. He patted her arm and went back to the car. He slammed the door and roared away. His foot throbbed again, heavy and dull. He felt sad. Rotten sad. But he concentrated hard on the driving and maneuvered the car out of town again. The farther away he got, the better he began to feel. He shut off the air conditioning and rolled down the window. And though the droop made it hard, he pursed his lips and pitched a thin tune to the wind.

John Matyas

Endangered Plant Life — Our Planet's Irreplaceable Treasure

Throughout history, by design or accident, human beings have radically altered their own habitats, and hence the habitats of animals (fauna) and plants (flora). Motivated by the need for living space or by the hope of profit, developers have justified destroying the environment by the pragmatic dictum that to gain one thing it is necessary to give up another. But the growing harmful impact of civilization on a diminishing natural environment — particularly in Third-World countries — has forced many scientists, conservationists, and concerned citizens to take a closer look at the ecological and economic costs of our practices.

Plants have always been low on the priority list when developers and conservationists clash over the fate of a given piece of land. Throughout the world most of the effort to conserve living organisms has been concentrated on endangered fauna. The *Red Data Book* on endangered animals, which was begun over 25 years ago by the International Union for the Conservancy of Nature and Natural Resources and is updated annually,¹ has only recently been paralleled by a *Red Data Book* covering the world's endangered flora. In 1970, the first *Red Data Book on Angiosperms*² was compiled, and since its inception plants have regularly been added to the list in the category of "rare," "endangered," or "extinct." Of the 220-250 thousand species of known flowering plants, over ten percent

are declared "endangered" and vulnerable to extinction by the year 2000. Extinction would mean a loss of 25,000 individual species of flowering plant, a number equivalent to all the known angiosperms found within the United States.³

There are many ways in which plant species are endangered by the human presence. Each plant is specialized for the habitat it has colonized: the amount of sunlight and water, the quality of the water, the presence of animal species to transport seeds and to manure the earth, the absence of highly competitive plant and animal species are aspects of the harmonious relationship a species has with its habitat ("niche"). This relationship is often spoken of as a "balance of nature," which is to imply that the fauna and flora are mutually supportive and interdependent. Such a set of relationships has developed during millennia and continues to evolve. Only in the perspective of this tremendous time scale can one comprehend how rapidly and radically humans can alter the habitat and endanger the plant and animal inhabitants. In many cases, the change is irreversible, and the species disappear forever.

Readers will be familiar with some examples of this human destruction. Insecticides such as DDT may eliminate valuable insects as well as commercially undesirable target species, and may affect other species than insects. National awareness of the tragic

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Illustrations by John Matyas.

effects of insecticides on nontargeted species was provoked by the case of the bald eagle: a diet of fish contaminated by DDT that had washed into rivers made the eggs of bald eagles and ospreys too brittle to support the weight of the adult attempting to hatch the eggs. Herbicides too may harm nontargeted flora and fauna and hence reduce their contribution to the whole interlocking system of species in that vicinity, the ecosystem.

By the term "pollution" most readers will understand chemical-industrial products that kill animals and plants directly. But some pollutants achieve their effect by selectively and enormously *enhancing* the growth of organisms which then eliminate other species. Many people who live near fresh-water lakes are acquainted with the process of *eutrophication*, in which phosphorus, an ingredient in detergents and fertilizer, multiplies the population of algae to the point where other indigenous plant life is choked off from sunlight and the oxygen content of the water is thereby reduced. Fish die and the lake may eventually become moribund.

The term "biological pollution" refers to the introduction by human agency of an alien species that endangers the indigenous plants and animals of that habitat. Familiar examples are the Japanese beetle in California, the jack-rabbit in Australia, and most recently the Mediterranean fruit fly in the California fruit-growing region.

Islands

Biological pollution, the effect of alien plants and animals introduced into a naturally balanced ecosystem, has of course occurred ever since man has been able to travel from one land mass to another. The adverse effect on native flora is normally a slow process, but in isolated habitats such as the Hawaiian Archipelago, the pace is substantially faster.

Oceanic islands have always enjoyed a natural form of biological "screening" due to their isolation from other land masses. In the case of the Hawaiian Archipelago, the nearest continent lies over 2,500 miles to the north. Because of this isolation only a few plants and animals were able to colonize these volcanic islands. Over the 30 million years during which the Hawaiian Archipelago grew and changed, various plants and animals competed for habitats there. Successful colonization

of the Hawaiian islands by new plant or animal species was a rare event, occurring only once every 10,000 years.¹

The plants that reached the islands were cut off from other individuals of their species, and they were present in very small numbers. These two factors would surely have limited the plants' survival had it not been for the islands' extremely various ecological zones and the absence of other plant competition. From the dryer coastal regions to the cooler mist-laden mountains of Hawaii's Mauna Loa and Maui's Mount Haleakala, which rise over 10,000 feet, plants that were transported by wind, water, or colonizing birds found a variety of climates and habitats to exploit. Herbs (nonwoody plants) have always been able to adapt to open situations and are the most successful in pioneering the colonization of island habitats. The herbs that were able to survive evolved into shrub and tree-life forms that filled the islands' various ecological niches. Since the islands were almost devoid of herbivorous animals, the plants that had evolved various protective mechanisms, such as toxins or thorns, before island colonization either lost or suffered a marked reduction in their protective devices through subsequent evolution. Beginning



Blossom of native Hawaiian Olia tree

with the approximately 200 colonizing plant species, more than 2,200 species have evolved on the Hawaiian islands. Alongside these indigenous plant species, a relationship has developed with the colonizing birds and invertebrates as they evolved. The feeding habits of many species became so specialized that they could subsist on only a single plant species.

When human explorers interfered with this natural balance among plant and animal, naturalists discovered how quickly plant species could be lost. In the aftermath of Captain James Cook's 1778 visit to the islands, the endemic flora faced a battle for survival that could not be won. Biological pollution in the form of grazing sheep and cattle, pigs, rats, and numerous commercial plants — and we must not forget the weeds which were inadvertently smuggled in potted soils — quickly made their own paradise in paradise. Of the 2,200 endemic plant species, more than 1,100 are now either endangered or threatened, and 270 are extinct. At this time approximately 4,000 imported plant species have become naturalized throughout the Hawaiian islands. Within a mere 200 years, the plant ecology of the islands has been enormously changed. Through increased land use, commercial farming, and further biological pollution, the future of the indigenous flora has been made less and less secure.

Rain Forests

Tropical moist forests (called "selvas") in portions of Central America, Southeast Asia, and tropical Africa constitute the richest biome on earth.⁵ They are vast green oceans of plant life, making up perhaps only five percent of the earth's land surface, but containing 80 percent of the world's vegetation. They may harbor as much as 50 per cent of the earth's five to ten million plant and animal species.

In tropical rain forests, constant temperature and abundant rainfall allow a great number of plant species to grow in very close proximity. There are no major seasonal changes, such as flowering and leaf loss. Flowering and fruiting times are specific to each plant species, but vary greatly between species, thus providing ample food and cover throughout the year for the forest's abundant fauna.

In a typical rain forest, the plant community can be separated into three basic



Urn plant, one of the bromeliads native to South American tropics

growth layers, but in a mature tropical forest as many as five layers are distinguished. The uppermost layer is the "emergent trees," with extremely long, branchless trunks and a thatch of greenery at the top. Below this layer of green islands is what looks to be an unbroken "canopy" of the foliage of shorter, branching trees. A third layer is referred to as the "secondary growth" of the forest. In a mature forest, the dense canopy restricts the growth of this and of lower layers. Where the canopy is sparse, layers 3, 4, and 5 are luxuriant, and this type of forest is called jungle.⁶ Layer 4 is composed of small trees, especially palms. The fifth and bottom layer is the ground layer of nonwoody, herbaceous plants. A rain forest's canopy may reach 120 feet in height, and in each layer various plants, animals, and invertebrates have evolved complex biological communities.

The herb layer, which may grow to over six feet, is populated mostly by ferns and similar species (selaginellas, gingers, and aroids⁷). Unless there are openings in the upper canopy or unless it is near streams and waterways, the herb layer grows sparsely and is relatively drab in flower and leaf color. The most colorful plants are normally not found at the lower levels of the rain forest. Some of the most brightly colored and interesting plants



Brassia orchids, native to tropical rain forests

grow not in the soil but upon the branches and trunks of tropical trees. These plants are known as "epiphytes," plants which use other plants for support but which are not parasitic. Epiphytes, which require good light, use the humus-laden branches of trees as their means of support, nourishment, and a ladder to the sun. In most cases epiphytic ferns, orchids, bromelia, and numerous others of this family have evolved interesting means of holding water, from spongy root systems such as those found in the orchid family, where a layer of dead cells called velamen allows water to flow into and around the root system and acts as a means of storage; to the cup-like leaves which are best exhibited by the bromeliads. In most bromelia, the short root system acts mainly as a means for attachment

while the plant's leaf arrangement forms a water-tight tank which is kept filled by the frequent rains. These water-holding plants produce, in turn, microenvironments which support a variety of insect and amphibious life, and play host to other plants, such as algae, lichens, and mosses.

The tropical rain forest is a wondrous place, with hundreds, perhaps thousands, of undiscovered life forms. Many of these plants and animals will never be discovered, if the destruction of the world's tropical forests continues at its present rate. One authority estimates that in Central America, Southeast Asia, and Africa, over 75 acres of forests are cut each minute, with the annual loss of tropical forest equal in area to the state of Florida.⁸ The expanding population of the tropics, in-

vasion by foreign timber interests, and the persistence of poor agricultural methods combine to threaten the remaining forests. The lowland forests of the Philippines may be gone by the late 1980's and Southeast Asia's rain forests may be reduced to "nothing more than a small botanical reserve by the year 2000."⁹

In South America over five per cent of the Amazon rain forest has been cleared. New roadways leading to the interior of the Amazon Basin have opened thousands of acres of normally inaccessible forest to farmers and industry. The characteristic growth of the upper-canopy trees — they may be branchless for up to 100 feet and have admirably uniform cylindrical trunks — has made them an ideal export product. Third-World countries actually receive comparatively little income from this resource, but a great deal of coordinated planning and foresight is required to invest money in such an intangible as "conservation." These countries, as they clear their forests, are cutting down their future.

Though tropical forests are quite different from northern forests, the same logging method — "clear cutting" the entire forest of trees, whether commercially valuable or not, whether old or young — is used in both locales. The density of the rain forest makes it difficult to employ selective cutting, even though only eight to ten trees per acre have commercial value. The tightly interwoven canopy causes the single cut tree to pull down several of its neighbors. Since the soil found in rain forests is composed mostly of decaying leaf matter (humus), the tree root systems are relatively shallow and trees fall rather easily. A rain forest subjected to selective cutting can regenerate quickly because of the extremely favorable conditions for growth. But the clear-cutting method destroys the entire structure of the forest: the valuable humus is quickly washed away in the frequent and abundant rainfall, and what is left is a sterile clay that is inhospitable to future growth. Today in many parts of what were tropical forest ranges, one finds virtual deserts, in Indonesia, lowland Malaysia, and in parts of Amazonia. Scientists believe that if the present rate of destruction continues, within 40 years the tropical rain forests will be gone!¹⁰

Even in places that a country has taken steps to protect (such as portions of the tropical forest in Western Africa's Cameroon terri-

tory), the efforts may eventually fail, and the scope of the problem is immense. Small reserves of tropical forest cannot be controlled like plants in a green house. There are countless interactions among plants, animals, and ecological forces that scientists are only beginning to understand. Moreover, watershed and erosion problems may be insurmountable if these isolated green islands are surrounded by miles of sterile earth.

There is no way to calculate what will happen to the climate of the rest of the earth if these forests are lost. These forests are effective natural windbreaks. Their disappearance could result in changes in wind currents, unexpected increases in rainfall in some places around the globe and decreases elsewhere, and even a global increase in temperature due to the release of huge quantities of carbon dioxide from the burning of tropical forests for cultivation. It is estimated that between 20 and 50 percent of the world's oxygen supply is produced by the tropical rain forests, which absorb carbon dioxide during the day and, in the process, release oxygen in great volume. With the loss of tropical forests, atmospheric carbon dioxide may build up and — combined with the burning of fossil fuels and the forests themselves — the earth's temperature could rise, through a "greenhouse" effect created by the increased carbon dioxide in the upper atmosphere. In rare instances where reforestation has been tried, the transplanted trees have typically been not the native species, but faster-growing commercial trees, such as eucalyptus and tropical pine, which have a much lower oxygen output. Whatever the consequences, a unique and ecologically vital part of our planet is in imminent danger.

Deserts

The so-called wasteland of the Mojave Desert actually contains an extensive variety of unique and rare flora. Desert flora required tens of thousands of years to adapt to an almost waterless environment. The California Nature Plant Society lists over 18 rare endemic species in a small section of Death Valley, popularly regarded as a region in which literally nothing can live. Many of these plant species are survivors from prehistoric times when the climate of the desert was less hostile. Many rare plants are isolated on alkaline sands and washes. The use of off-road jeeps and motorcycles in areas where these remnant populations exist poses the greatest threat to the

plants' habitat and the flora itself. The desert is now the playground for over one half million people annually and the fragile environment is quickly being ravaged.

In a region where the native flora may receive its annual three inches of rain with a fifteen-minute shower, the plants have evolved specialized survival mechanisms. These plants can be separated into two classifications: drought-evading and drought-resisting. Drought-evading flora, known as ephemerals, can withstand long waterless periods for years as seeds. After rain they are able to germinate, flower, and seed within a week or two. These plants usually produce gaudy flowers and can fill the normally bleak desert landscape with a palette of color.

Drought-resisting flora are typically succulent plants which have small leaves or are leafless and have thick waterproof skins. They also possess leaf pores which can tightly close between rains. The most common drought-resisting plants are the cacti. The stately saguaro cactus has symbolized the Wild West for generations, but its survival as a desert dweller is now endangered by plant poachers, who carry on a lucrative business with interior decorators and landscaping designers. In Texas alone, over a half million cactus plants are illegally removed each year.¹¹ As is the case with the illegal trade in endangered animals, the rarer the plant the higher its price, which gives the incentive to more poachers to search out with even more enthusiasm the remaining sites of these plants. It takes the saguaro cactus over six years to grow two or three inches, and seventy-five years for its familiar arms to sprout. Specialized plants such as these cannot regenerate quickly enough to sustain a viable population. With each cactus that is removed, we lose a bit of our nation's history and hard-to-replace part of its environment.

National Parks

Endangered flora are certainly not peculiar to oceanic islands and tropical forests. America, despite its conservationists and environmental groups, continues to lose native flora even though public awareness has been increasing in the last 20 years, and even though some valuable habitats have been saved.

American concern about native plants and animals culminated in the passage by

Congress of the 1963 Wilderness Act. This Act defines wilderness as a place "where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain."¹²

One of the most precious treasures of the United States grows in northern California: Sequoia National Park. In 1968, Congress established the Redwood National Park. It is the home of two extraordinary trees, the Sierra redwood (*Sequoia gigantea*) and the coastal redwood (*Sequoia sempervirens*).¹³ Coastal redwoods have a normal life span from 500 to 800 years. One of the oldest trees found so far has been dated at over 2,200 years from a count of its annual rings. Coastal redwoods are also the tallest trees, with some reaching over 340 feet in height. The various plant species that occupy this domain of giants, such as sword and maidenhair ferns, lavender-blossomed sorrels, azalea and rhododendrons, California rosebay, and stream and rain orchids all combine to create a cool-climate rain forest.

With national park status, the trees seem secure, but subtle dangers continue. Three years after the redwood legislation, conservationists and environmentalists were already fighting to increase the Park's boundaries because of dangers posed by practices at the neighboring logging operations. Clear cutting is still used all around the Park's boundaries, and entire mountains are totally denuded of their timber, producing erosion, siltation, and habitat loss. The remnant of trees and wildlife within the park cannot survive this form of habitat isolation.

Plant and animal life of a protected area cannot be totally isolated from the effects of improper forestry practices that occur around them. The presence of highly erodible soil types, steep slopes, narrow tributary channels (which tend to clog with debris) and heavy rainfall combine to undercut forested banks and flood previously safe sections of the park. Soil and industrial contamination clog streams and tributaries, destroying suitable fish-spawning grounds, lowering the water oxygen levels, and poisoning aquatic life. Rising stream beds cause excessive undercutting in sloped terrain which results in landslides and loss of park acreage. Improper forestry methods endanger the fragile redwood forest ecosystem, but ecologically sound forestry practices are compatible with

the remaining redwood forests if timber companies and private interests could reclaim deforested land by replanting redwood saplings, limiting road access, and cutting only mature trees instead of clear cutting entire areas. At this time only a few companies are willing to employ these procedures.

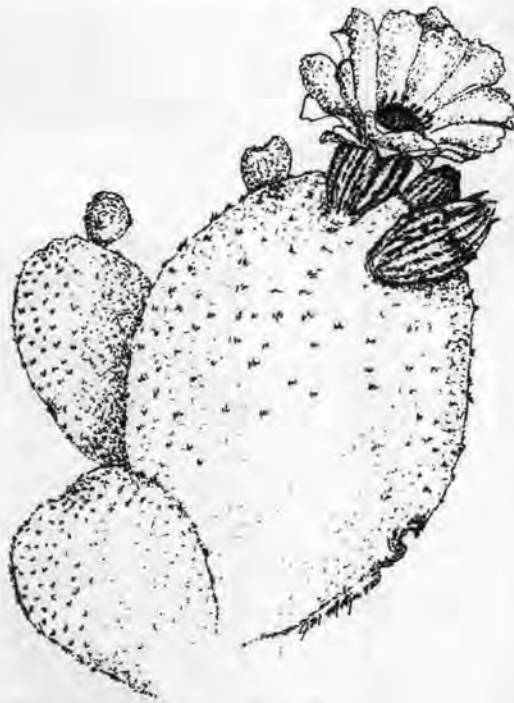
It is ironic that many regions that harbor our unique flora and fauna were set aside as preserves, not because they contained some recognizably rare plant or wildlife habitat, but because they were regarded as devoid of economic value! But today the parks and wilderness areas have become targets for timber, oil, gas, and mineral interests, and as John Muir sagely recognized, "Nothing dollarable is safe, however guarded." As in many parts of the world, saving a little portion of the plant life will not guarantee its survival.

Even our recreational enjoyment of wilderness poses a danger. Each year thousands of vacationers and outdoor enthusiasts converge on wilderness and national parks. The use of recreational vehicles has greatly increased the damage to animal habitats and plants, and it promises to increase. Regions normally secure from mass use because of rugged terrain or climate, are now entertaining a growing number of visitors using off-road vehicles. The damage done to plant habitats by off-road vehicles is usually extensive and, in our nation's deserts, it is almost irreversible.

Endangered Species in Ohio

The problems facing Ohio's flora differ slightly from those of the rest of the country. Industrial pollution, residential expansion, the filling in of watershed area, and intensive collecting have placed over 700 plants in the categories of extirpated, endangered, threatened, and potentially threatened flora. (A complete listing of these plants can be obtained from the Ohio Department of Natural Resources: it is titled, *Rare Species of Native Ohio Wild Plants*.)

In 1973, Congress passed the Endangered Species Act, which gave support and guidelines to the states so that a comprehensive study of each state's flora and fauna could be compiled. In Ohio, the Natural Heritage Program has compiled detailed lists of our endangered and rare flora. In order to be designated "endangered," a plant species must be limited to a natural population of three or

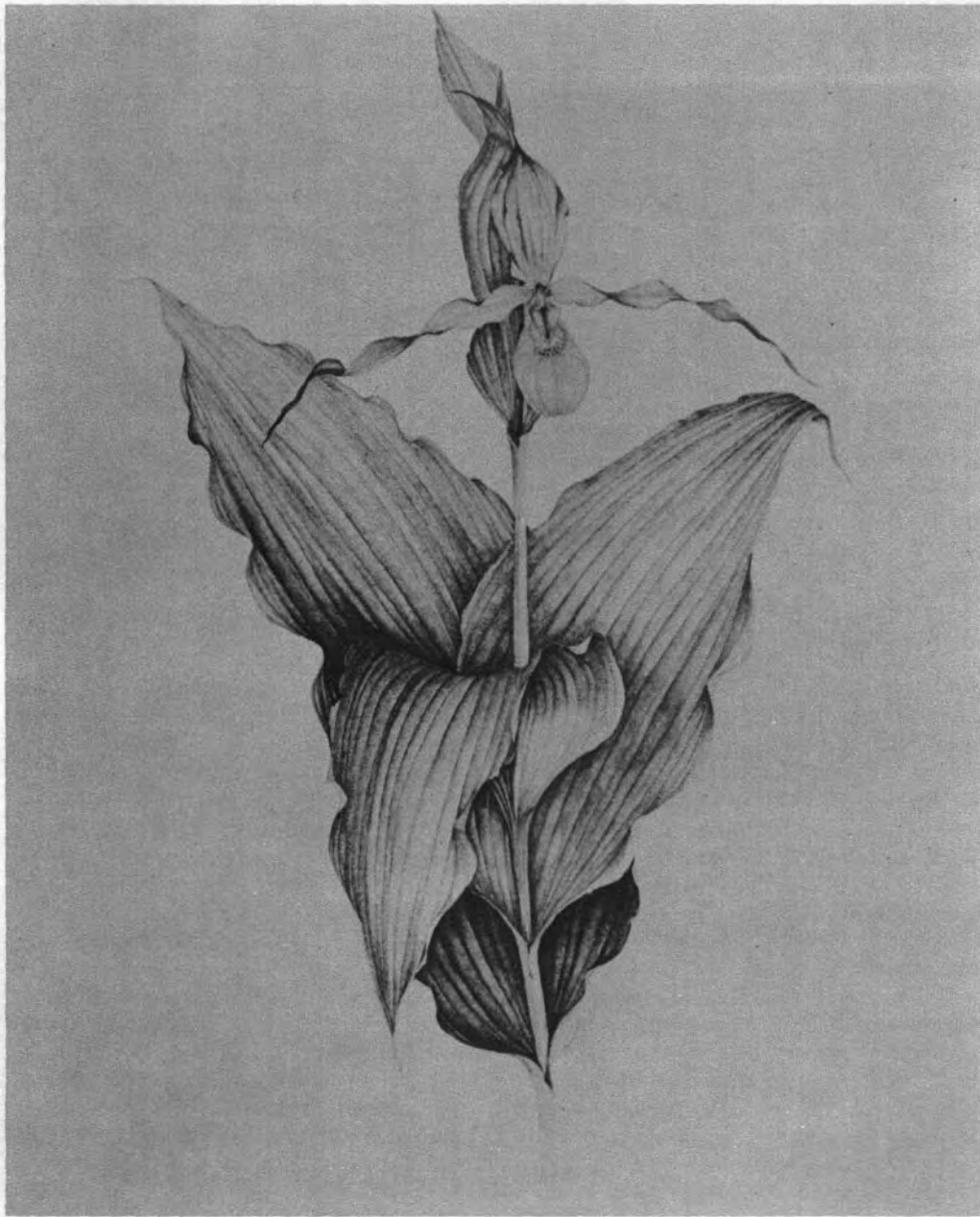


Prickly pear cactus found in Ohio

fewer sites, and the natural population in the state must be limited to 100 or fewer individual plants. The study and discovery of new habitats has increased public awareness of the diversity and beauty of the state and has provided information needed for preserving its environments.

Almost every Ohio plant family from ferns and selaginella to grasses, sedges, and flowering plants is included on these lists. As the search for rare plants in Ohio continues, we realize that in order to save the plant species we must first save their habitats. Ohio contains many special environments, such as the alkaline bogs which contain the endangered small yellow lady's slipper (*Cypripedium calceolus*; see p. 82); the dune environments near Lake Erie, with the prickly pear cactus (*Opuntia humifusa*) found at Oak Openings Park near Toledo, and the fringed gentian (*Gentiana crinita*); and marsh and forest biomes, along with the remnants of a Western prairie.

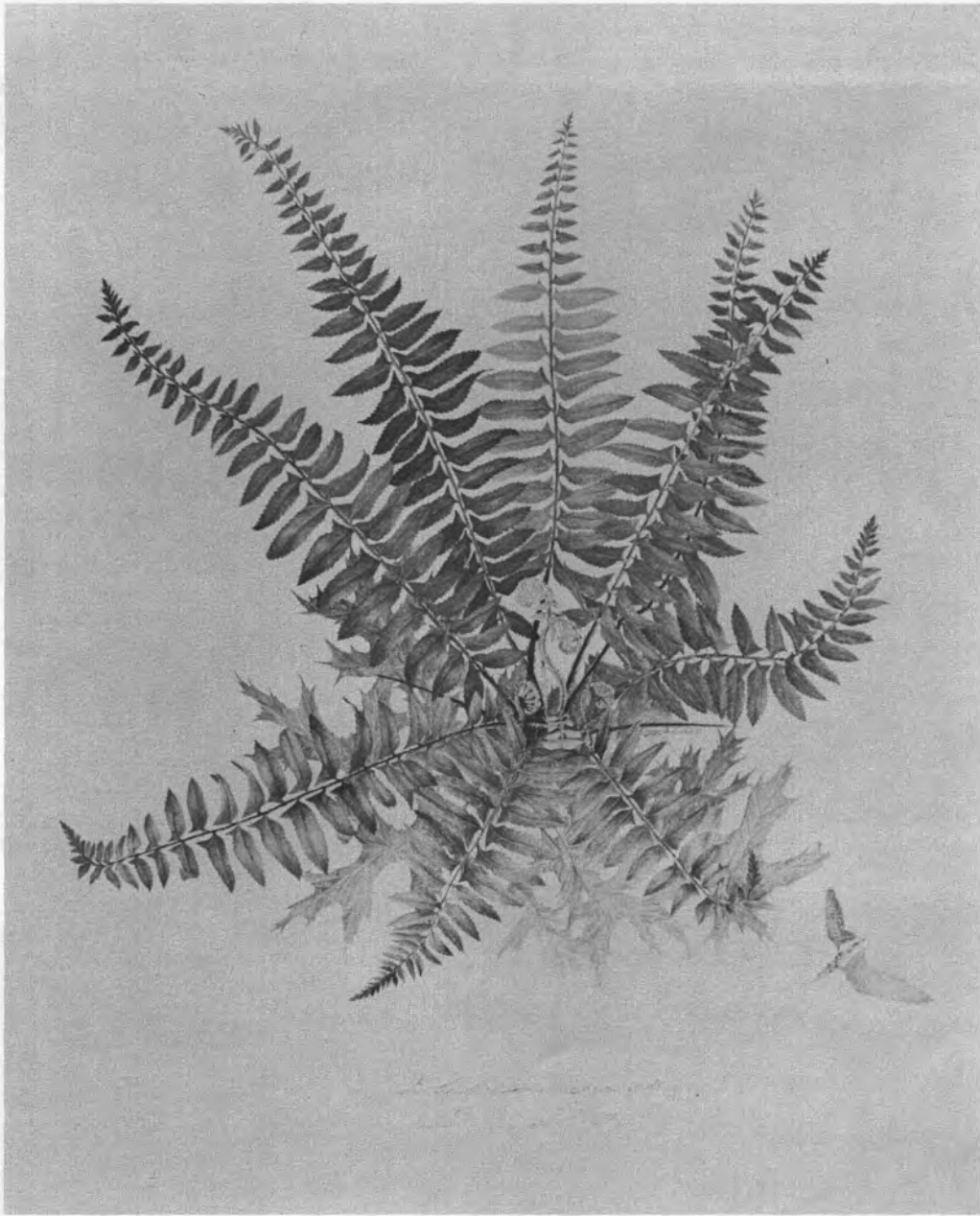
In flood plains, ravines, and hillsides throughout Ohio, one can observe a great variety of ferns and flowering plants. In those delightful places where moisture seeps from the banks of rich humus soil, and decaying leaf matter gives the area a sweet aroma, there



Yellow lady's slipper, *Cypripedium calceolus*



Northern maidenhair fern, *Adiantum pedatum*



Christmas fern, *Polystichum acrostichoides*

grow ferns such as the northern maidenhair fern (*Adiantum pedatum* L., p. 83), the ostrich fern (*Matteuccia Struthiopteris* L.), the interrupted fern (*Osmunda Claytonia* L.), and the cinnamon fern (*Osmunda cinnamomea* L.). On the drier hillsides may be found the evergreen Christmas fern (*Polystichum acrostichoides*, p. 84). In Ohio alone there are over 54 species of ferns, including some quite rare ones, such as the walking fern (*Camptosorus rhisophyllus*), so-called because it spreads by the extension of root-like growths, and the climbing fern (*Lygodium palmatum*).

Ohio still has remnants of the Western prairies that most people would not recognize. During the dry, warm climatic era called the Xerothermic period, which began about 2000 B.C., flora characteristic of the Midwestern prairies invaded much of the state. Today over 155 areas, covering about 1,000 acres, in 50 of Ohio's 88 counties, have small populations of prairie plants or thriving prairie habitats.¹⁴ Most of the locations are in the western third of the state, but some prairies stretch into Pennsylvania. Areas that to most visitors would appear only to be vacant weed-infested lots are, in many instances, the home of such prairie vegetation as the gray-headed coneflower (*Ratibida pinnata*), dense blazing star (*Liatris spicata*), Michigan lily (*Lilium michiganense*), and prairie phlox (*Phlox pilosa*). Through the work being done by the Ohio Department of Natural Resources and the Ohio Natural Heritage Program, these rare ecosystems and the plant and animal life that they harbor may succeed in remaining for future generations.

A Philosophy of Conservation

We must understand the relationships between plants and animals in all the ecosystems that surround us if we really hope to save the natural world. From the small wooded lot to the pristine hemlock forests in Ohio, what may seem insignificant to us today must be saved for future generations. But

what is the value of maintaining the vast number of plant species of the world, if they have no established economic value? The answer is simple, but easily overlooked.

The extinction of any plant species represents an irreversible loss of a unique resource, the biological germ plasm of that species. Each plant species has a characteristic gene pool which cannot, at present, be duplicated. The extinction of a plant species limits our options in the potential uses of the known or unknown value of its genetic material. A few examples will make the point.

The wonder crops of corn, wheat, and other grains have been developed from common wild relatives, and these modern crops require constant "topping-up" with fresh germ plasm from their wild relatives in order to combat new diseases and insect pests.

Moreover, scientists suspect that plants hold thousands of new chemical compounds which may benefit mankind in the form of cancer cures, new fuels and lubricants, and a host of new and unfamiliar materials that will contribute to human welfare and happiness. For example, the chemical called pokeweed, which is derived from the common pokeweed (*Phytolacca americana*) was found to control the snails which transmit a worm parasite, known as bilharzia, that afflicts over 200 million people in Asia, Africa, and Latin America.¹⁵ The jojoba plant produces seeds that contain a rich, ready-to-use oil; since the oil is identical in chemical composition to that of whale oil, it may assist in saving the whale from extinction. The jojoba plant is an easily renewable resource, but whales are not.¹⁶

With each new advance in science, we realize how important each and every organism on the planet is to the future welfare of mankind. Though we may selfishly cultivate the plants that give us shelter, food, and paper to write on, we should also selflessly protect those plants that appear to be useless, because in the long run it will be in the interest of the human species to do so.

NOTES

¹The Red Data Book, revised edition (Washington, D.C.: Smithsonian Institution Press, 1981), 1. An Angiosperm is any flowering plant.

²The Red Data Book, p. 2.

³The Red Data Book, p. 2.

⁴Wayne C. Gagné, "Hawaii's Tragic Dismemberment," *Defenders*, 50 (1975), 461.

⁵Norman Myers, "Tropical Forests," *Swara*, 2, No. 1 (1979), 16. A biome is a community of living organisms of a single major ecological region.

⁶Edward S. Ayensu, *Jungles* (New York: Crown, 1980), 31.

⁷*Jungles*, p. 44.

⁸*Jungles*, p. 172.

⁹Gwynne Dyer, "They're Burning Down the Amazon Forest," *Cleveland Plain Dealer*, Nov. 12, 1982, sect. B, p. 3.

¹⁰Ned Andrews, "Tropical Forestry," *Sierra Club*, 58 (April, 1973), 9.

¹¹Harold W. Wood, Jr., "Death Valley," *National Parks & Conservation Magazine*, 48 (Feb., 1974), 7.

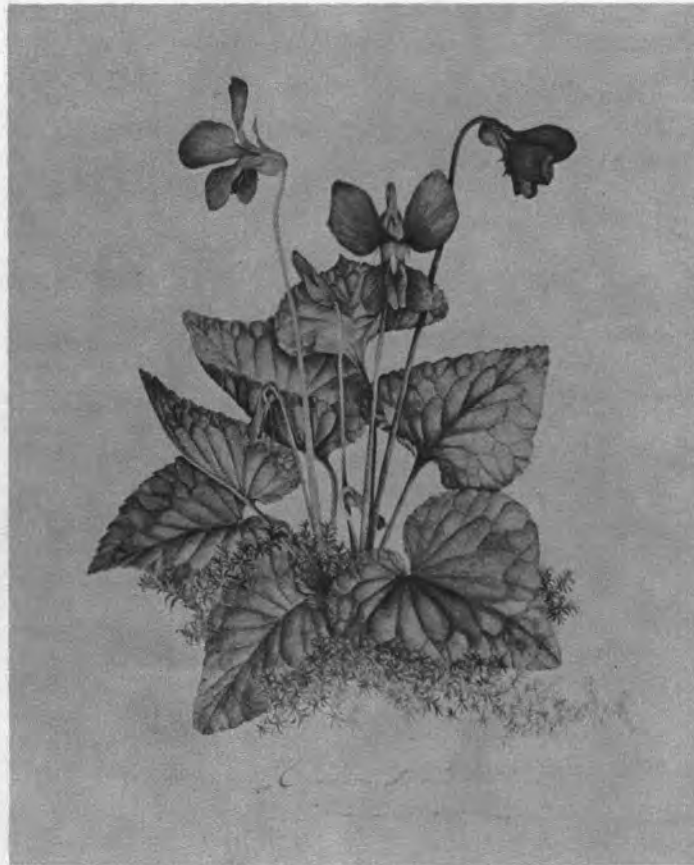
¹²Thomas R. Berger, "The Berger Report: Northern Frontier, Northern Homeland," *The Living Wilderness*, 41, No. 137 (April-June, 1977), 7.

¹³Michael McCloskey, "The Redwood: To Stand How Long?" *Sierra Club*, 58 (June, 1973), 17.

¹⁴Perry K. Peskin, "Four Species in Search of a Habitat," *The Explorer*, 24 (Winter, 1982), 4.

¹⁵Claire Sterling, "The Aswan Disaster," *National Parks & Conservation Magazine*, 45 (Aug. 1971), 11.

¹⁶Regis McAuley, "Arizona Sprouts an Oil Field," *The Explorer*, 21 (Winter, 1979), 18.



Common blue violet, *Viola papilionacea*

WORD WATCH

by David Guralnik, Editor-in-chief of Webster's New World Dictionaries

Funny Names in Science and Technology

In today's technological wonderland, it is not surprising that scientists and engineers need to find names for new things and processes; what is surprising is the whimsical spirit in which they proceed. For example, nuclear physicists needing a term for the extremely small area (about one septillionth of a square centimeter) that a neutron must hit in order to enter a nucleus and thus set off a nuclear reaction, facetiously chose *barn*, because such a space is hardly "as big as a barn." And when a name was needed for one of the hypothetical atomic particles postulated as forming one of the building blocks of other particles, the physicists Murray Gell-Mann, again in a fit of fancy, chose *quark*, a Joycean coinage from *Finnegans Wake* ("Three quarks for Muster Mark!"). The specific physical properties of certain quarks are called variously *charm*, *color*, *flavor*, *beauty*, and *truth*.

And now, our citation file tells us, computer scientists have also turned to whimsey in finding the nomenclature for a technology that will change the nature of life on earth more radically than any other twentieth-century development — that is, if the charm, beauty, and truth of quarks do not end it first. To begin with, the basic unit in the binary number system, represented by either a 0 or a 1 and constituting the smallest unit of storage in the computer, was termed a *bit*, a fortunate and acronymic formation from *Binary digIT*. The logical next step was to create a term for the group of consecutive bits, usually eight, that make up an alphabetical or numerical character, for which someone arbitrarily chose *byte*, a merging of *bit* and *bite*. And when a need arose for a word for half a byte (four bits), what evolved was — that's right — a *nibble*. What, then, to call a group of several bytes treated as a unit? A *gulp*, of course. And while we are in the inviting field of gastronomy, what is one to call the displayed list of functions that one can select from to perform on a terminal? Naturally, a *menu*.

Moving from the restaurant to the home, the performance of the various routine tasks that must be done prior to and following the execution of a program, such as making available the necessary files and devices and cleaning up temporary storage areas is *house-*

keeping. And the main board in a computer into which the circuits are plugged is the *motherboard*. To make certain that the many tyros who are now engaged in using computers are not too intimidated by its technology, those terminals, programs, and the like that are intended for them are designated *user friendly*. It almost makes you want to embrace one.

Any video-game addict knows that the lever that controls the movements of the omnivorous or destructive monsters or their prey is called a *joy stick*, probably borrowed from aviation or possibly from the drug culture. And now there is an even more sophisticated hand-held device that translates motion into a computer-read signal, moving the cursor (blob of light) to any point on the computer screen. It is quaintly called a *mouse*, partly because of the way the cursor scurries about on the screen and partly because the first was built with switches on top and a tail-like cable connecting it to the computer, so that it resembled a mouse lying on its back. Other homely terms: *ping-pong buffering*; a technique involving the transfer of data from one device to another; *floppy disk*, a small, flexible storage device, whose name conjures up a playful puppy; *massage*, a manipulation of data to produce output in the desired format; and *LISP*, an acronym formed from *LISt Processing*, a complex computer language. Some programmers, however, claim that the name is an abbreviation for "Lots of Irritating Single Parentheses," a conspicuous feature of its unusual notation.

Computers may be humanized by being described as progressing in *generations*. We are now either at the end of the *third generation* or just beginning the fourth, depending on how you view the latest stages in their growth. And data sets, too, exist in generations, for the safety of the data, usually stored in threes, the earliest version of a master file being called the *grandfather*, the next the *father*, and the current file, of course, the *son*.

Is it possible that the assignment of such affectionate names is an unconscious propitiatory gesture to keep under control these semidivine objects that some think may one day have minds of their own?

BACK MATTER

Terry Pluto

Confessions of a Baseball Writer

Gary Bell was the first Major Leaguer I met. I was about nine. Like many ballplayers, Bell was around thirty, going on eleven. He was pitching for the Cleveland Indians, which placed him among my gods.

At the time, my brother worked for the Parma Recreation Department. One day, Tom said City Hall wanted him to pick up Bell at the righthander's apartment and take him to a baseball clinic at State Road Park. When I learned that my brother was going to have a baseball card in the flesh, sitting next to him in the front seat of our 1964 fire-engine-red Dodge Dart, I tossed away any semblance of pride and begged.

"You have to take me with you," I said.

"Why?" asked my brother.

"Because I'll do anything you ask," I said. "I'll be your personal slave." After a siege of combined wheedling and blackmail, my brother relented: "All right, you can go as long as you sit in the back seat and keep your mouth shut. Call him Mr. Bell and don't ask any idiotic questions. And whatever you do, don't ask him to get Jack Kralick's autograph for you."

I quickly agreed.

There are two things I remember about the trip. First, Gary Bell liked to spit. He wasn't in the car five minutes, before his head was out the window. He could have been a basset hound who liked to feel the wind on his nose. But Bell wasn't after fresh air, just a place to squirt his tobacco juice. He wouldn't dare spray the bright red carpet of the Dodge. Who says ballplayers lack class?

Second was the idiotic question. About halfway on our journey, my heart started pounding. My brother was concentrating on his driving and Bell continued to chew and spit. A scratchy noise came from the radio. No one had spoken for five minutes. Then the words came in a rush and I wasn't sure I had said them aloud until Bell turned around.

"Mr. Bell," I said. "Who is the toughest hitter you've ever faced?"

Bell squinted at me and his jaw went up and down a million times, smashing the chew stuffed in his cheek. He formed a crooked smile. "Young fella," said the pitcher. "I'd say it is the one with the bat in his hand." Then Bell unleashed a deep laugh and clapped his hands. My brother cautiously smiled, and I wanted to crawl under the seat.

Well, it was over. The first time I had said something to a ballplayer, and it was to ask an idiotic question. In my fifth year covering Major League baseball, some would say I have been doing the same thing ever since. But now, I am paid for it.

When we went home, my brother said nothing to my parents about the idiotic question. My mother thought I was strangely quiet about the ride.

"Did you have a good time with that pitcher?" she asked.

"It was okay," I said. "He signed my baseball."

"That was nice of him," said my mother.

"I guess he was nice enough," I said.

Actually, Bell had disappointed me. I had had no idea what to expect from a member of the Cleveland Indians, but I didn't think he would spend a half hour spitting out of the window. In retrospect, Bell was no worse or better than the normal ballplayer. Even his career record was a mediocre 121-117, with a 3.68 Earned Run Average. Gary Bell, mediocre on all counts. Also, human on all counts.

His nickname was Ding Dong. It probably was devised by some other thirty-year-old player (going on eleven) who thought Bell was a hilarious last name. But Ding Dong also is yelled by ballplayers at one of their unfortunate peers who has a baseball smack against the protective cup that guards the vital organs between a man's legs. When someone is hit in this

area and bends over in pain, ballplayers laugh and whistle. They slap their thighs and then hold their sides. It is considered the highest level of baseball humor.

Ding Dong had one other distinction. He was a star in Jim Bouton's wonderful book, *Ball Four*. Bell and Bouton were teammates on the long-gone 1969 Seattle Pilots. On one road trip, Bell's roommate decided to spend the night prowling the streets of New York. The roommate's wife called at 4 a.m., asking Bell for her husband. "He can't come to the phone now," Bell said calmly. "He is out playing golf."

That ride with Gary Bell was excellent training for a baseball writer. It was a glimpse into life in *The Show*, as minor leaguers call the Majors. The sport is not for those with weak stomachs.

In fact, the stomach may be the heartiest part of a ballplayer. After covering my first Major League game, a veteran Milwaukee sportswriter had this observation: "Make sure you don't go near the food table in the locker room or those bastards will stomp you to death. They don't give a damn if they won 12-1 or got annihilated. They'll want their ribs." The moment a game ends, the players file into the dressing room, toss their gloves and caps into their lockers and head for "the spread," which usually is such uninspired dishes as hot dogs and beans, pizza, or cold pork chops. Most players jam their paper plates with whatever is served and carry it to their lockers. Then they will undress while munching on a drumstick, often stopping once they reach their underwear to complete the meal. Then, they take a shower and get dressed.

My first year on the beat was spent with Earl Weaver and the Baltimore Orioles. The fact that I give top billing to Weaver rather than the team is not an accident. In the fifteen years he managed Baltimore, he was the Orioles. He is called "The Earl of Baltimore" by the Oriole fans.

Ah, Earl Weaver the former loan officer and used-car salesman, the prophet of winning via the three-run homer and "out administrating" the opposition. "You can't fool me, Pluto," Weaver said soon after we met. "I'm on to you guys. Remember, I have seen every kind of person in the world. I've heard all the lines from the check is in the mail to I don't really want to buy a car. I could look at their eyes and know if they really had mailed the check or if they could afford another car."

Weaver did not chew tobacco, but he liked to eat. After a game, he poured food down his throat as if it were his last meal. He answered questions with his mouth full. But Weaver was never one to worry about etiquette. Not only is he the best baseball mind in the country, he has been ejected from more games than anyone in baseball history. You better believe Weaver knows all the lines. He probably has used them all, too.

From Gary Bell to Earl Weaver, I have a classic love-hate affair with ballplayers. My favorite ones always seem to be those with marginal talent — thank God for Bill Nahorodny, Joe Kerrigan, Karl Pagel, and Alan Bannister.

I love Nahorodny because he always wore his shin guards on the field, even if he was sitting in the bullpen waiting to warm up a pitcher.

I love Pagel for wearing his Indians jacket in the lobby of the Sheraton in Boston. He had recently been promoted from the minors, and Pagel was so happy, he didn't want to take off his big league jacket. You saw that and knew Pagel had slept with his first baseball glove.

I love Kerrigan because he wanted to become a sportswriter if he couldn't cut it as a relief pitcher. After bouncing from Montreal to Baltimore to Rochester to Indianapolis, I hope Joe has been practicing his typing. Kerrigan also made a point to buy every newspaper he could. Most players refuse to purchase a paper, preferring to borrow a sportswriter's rather than put out a quarter.

I love Bannister for being intelligent, too smart for a ballplayer, according to some. He reads books that aren't written by Stephen King or Sidney Sheldon.

When you spend nine months a year following 25 guys around the country, the team becomes your family. There are plenty of eccentric relatives. Former Indian reliever Victor Cruz had tattoos on his thighs and called me "Bluto." Most of his English was found in this sentence: "I get my fastball from my stomach." Cliff Johnson once threatened to break my bones because I wondered in print why he did not score from third base on a fly ball hit to

the warning track. Cliff is big enough to make you want to be sure that your hospitalization is paid up.

Baseball is an insane existence. In the press box, writers gleefully recount the inadequacies of the players on their teams. They swap tales of incorrigible athletes with scribes from other cities. In the clubhouse, players recall the crimes committed by journalists. The players sit in one section of the hotel bar, saying bad things about the writers. Naturally, the writers are in a different part of the same bar talking about the players. Everyone has a valid complaint. It is enough to make me wonder why I didn't take the hint from that first trip with Gary Bell. Twenty years later ballplayers are still spitting, and I'm still asking idiotic questions.

Terry Pluto covers the Cleveland Indians for The Plain Dealer.



William Weiss

The Sixties Are Alive in Boulder

Dear Editor:

Since Allen Ginsberg was recently in town, I thought that the readers of THE GAMUT might be interested in this story about a meeting I had with him at Naropa a couple of years ago.

*Sincerely,
William Weiss*

A BRUSH WITH GINSBERG

America when will you be angelic? When will you take off your clothes?

— from America by Allen Ginsberg

I blew into Boulder via the Mile-High City, via Des Moines, via the Windy City, and out of Cleveland, the windier city. It had been a two-day Trailways nightmare, a "horrible osmotic experience" that included late-night-flatland burgers, the bawling of weary children tended by shadowy transients, small-town noons, foothills and mysterious Indian visions of clouds, twilight buffalo, and motion — constant, implacable motion at sleep, reading, eating, in the shaky jakes: the wonder of crossing two-thirds of America and feeling every holy inch of it in the seat of my beat pants.

Each leg of the way had brought me closer to Boulder, to Naropa, to a crazy heart in the darkness, closer . . .

Ginsberg.

There were hypnotic ghosts of highway lines in my eyes. Doppler effects haunted me. I needed a drink, a shower, a sleep. In that order. But first I had to register.

I picked up a map of Boulder in the bus station and found High Street, shouldered my pack and walked. It was 7 a.m. and nothing was stirring.

I walked not too long before becoming intoxicated by the thin air and the sheerest beauty of mountainward horizon. A lone taxi flashed under trees shimmering gently in newborn sun. A small park; a water fountain welcoming wanderers. I was about two hours early for registration. I walked across the street to a fire station and asked two firemen with morning faces if I could use their john to wash up. They nodded friendly (most Boulderites do) and seemed not at all surprised at my request. I dirtied their head (there is nothing cleaner

than a fire station bathroom) and went out and crashed on a tree lawn that was patiently waiting, like myself, for the scene to come down.

*

. . . I awoke. It had. There were fifteen or twenty other people exhibiting various zoned-out postures on the lawn. Before long, there assembled ten more. Then more still until finally there were about fifty head. Long-hairs, bearded bohos, jeaned seekers, backpackers — the Zenful youth of America waiting for the Naropa Institute to open its doors to the burnt-out masses yearning to be free.

Ginsberg was teaching at Naropa. And so was William Burroughs, satirist extraordinaire and science fiction pornographer . . . and so was Gregory Corso and so was Jeremy Hayward and . . . I didn't know much about the place except that some far-out and famous people were making themselves available there.

Naropa, cradle of the dharma in the West and great, holy center for the arts in the Rockies. Named for an eighth century Buddhist scholar, Naropa was founded in 1974 and has since become the largest center for Buddhist studies in the United States. It attracts some 1,500 students each year and the number of budding bodhisattvas is on the rise. But at the time, I knew little about the Buddhism part of the package. Up there, in the mountains, it all seemed so surreal, too much like something out of Dali's "Geopoliticus Child Watching the Birth of the New Man."

I showed because I wanted to meet the man whose work had entranced a generation. The man whose masterpiece, *Howl*, had been seized by U.S. Customs and the San Francisco police back in 1956. The man whose poetic voice had been the subject of a long trial at which poets and professors had testified in behalf of *Howl's* serious literary merit. *Ginsberg!* I felt his presence. He was very near.

*

In my usual, late fashion, I got to Naropa on the last day of registration and I couldn't get a class with Ginsberg. I figured I'd pick him up on the streets somewhere. I did manage to get classes with Burroughs and Corso, though. Burrough's book, *Naked Lunch*, had had to suffer a Boston trial for obscenity and a Massachusetts Supreme Court decision — just as *Howl* had been persecuted for being frank about the real and potential hell in our American movie. (Fortunately, both works were exonerated.) Gregory Corso is the author of such Beat creations as *The Happy Birthday of Death* and *Herald of the Autochthonic Spirit*, and he turned out to be one of the finest teachers I ever had. He would breeze into class with a fifth of Wild Turkey, roll a few joints, pass these around in his patented belligerent way, and then brainstorm us about everything from sex among the Babylonian gods to his friendship with the late, legendary Jack Kerouac, author of *On the Road* . . .

Socratic Poetry Rap Class, Take One:

Corso arrives, torn tennis shoes, no socks, snappy red shirt, wrinkled grey trousers.

Someone switches on a tape recorder with telltale "click!"

Corso: "Turn that fucking thing off!"

Official observer: "That's alright, Gregory, it's for us, for Naropa."

Corso: "Fuck Naropa!" He walks over, turns the machine off and says, "All people who *paid* for this class, get the fuck out. [Glaring] It's time for time. Alright now, *you tell me* where immortality fits in. [Pause] None of you fuckers knows, do you? What a fucking class I have here. Immortality is the only real permanence — it don't fit in tape recorders . . ."

And so on and so on until the class is completely mesmerized by his volatile dialectic.

But I'm getting ahead of the tale . . .

*

I registered, checked into my room, and took one of the most pleasurable showers of my whole soiled life. My room was one of about fifty in a fine old three-story sorority house just off the University of Colorado campus. During the summer, the house was rented to

Naropa for its students. It was set back from the road amongst big, leafy maples. It had a kitchen, a large communal dining room, and a rooftop observation deck from which I later watched, through stony red peepers, the Perseids make one of their most cosmic entrances in years.

The house was run by the skinniest Buddhist I have ever known. He was about twenty-five, five feet tall, and weighed about eighty pounds. His name was Oscar.

"Oscar, are you a vegetarian?"

"Only when I'm not fasting."

And it was rumored that there was a hermit who lived somewhere on the third floor. His name was Antler and he was working on a great epic poem. He had not seen the light of day in a year (he would have none of the dissipation of everyday life homing in on his creativity). A young Pole, Jeff P ———, brought him his food everyday. Jeff was also a poet and, as far as I could tell, both were stars on the rise in Boulder. I used to see Jeff in the halls occasionally on my way up to the observation deck.

"How's Antler doing, Jeff?"

"Fine," vegetable-nut-fruit tray in hand, official poet papers in hand, balancing act.

"And how's *Beowulf* coming along?"

"*Beowulf*?" Buddhist tray dipping toward the floor, dishes sliding.

"Yeah, the epic, you know."

Tray hits floor.

"Shit!" Famous Buddhist understatement.

And there was a room in the house that was set aside just for meditation. Cushions, lace curtains, royal blue carpeting, printed invitations to the Void of Mind. I would come down for breakfast and the doors to "the room" would already be closed. Its occupants wouldn't emerge until suppertime! This went on day after day.

Sitting was the big thing at Naropa. Sit and enlighten. Almost everybody did it. You see, the idea is to quiet the Mount St. Helens of your American desire machine by transferring energy from your reptile brain to the neocortex via the mammal brain. That was easy enough, I figured at the time. After all, I had three brains just like everybody else. The hard part, so I was informed, was getting the mammal brain to sit still long enough so that the energy transfer could take place. Like, the mammal brain is this big hairy thing with huge biceps that wants to be out revenging and copulating and being reborn over and over in the American fantasy night. And not just on weekends either. A real mother, you see, but the only link between the other two brains.

The next day I go into "the room" with eight other apprentice Buddhas and sit on a little red pad and try hard to enlighten. Soon mammal brain get heavy bored. It go nowhere fast. It want to be out riding Harley, raping women and cattle — it want red-blooded American meditation. Shades of Neal Cassady. Volcanic ash settles on the hair and shoulders of my compatriots like the dandruff of the Great Spirit. I lasted about twenty minutes.

I went up to the observation deck to smoke a joint. I felt hopelessly Catholic. I met Jeff on the way.

"How's Antler doing, Jeff?"

"Fine."

"How's *Gilgamesh*?"

"Fine."

Who are all these people anyway?

*

I got high and went out and walked around beautiful, mountain-high Boulder. I had been in Bouldertown a month and no sign of Ginsberg. He was apprenticing one of the guys on my floor, a decent poet nineteen years old. This guy, Martin, told me that Ginsberg was just lying low, teaching, working on a new book. I had found out where he was staying, but I figured it would be uncool to intrude on his muse. I could wait. I was a punk. I would run into him all unobtrusive like. I headed down to High Street.

There was supposed to be some midterm celebration with kegs and wine, and I figured some of the local celebrities would show. Maybe Ginsberg.

open-windowed night resounded with primal harumphs and screams.

Where were the police in this town anyway?

Then the contest began. Whoever wanted to read had had to sign up on the list on the stool in the middle of the living room floor. Someone went up and sat on the stool and started to read. He read until everybody's mammal brains got bored and then his soul's work got drenched by sixty squirt guns. Everybody had squirt guns — no holds bards. About fifteen people read and got soaked. A few wore raincoats as they slung strophes. It got later; everyone got loaded to the max.

Around midnight, Antler and Jeff walked in.

At least, I assumed it was Antler because a hush fell over the crowd — all except for Oscar, who had never stopped screaming meditation.

Antler went up slowly and stepped on the stool. He began reading from THE POEM. He looked quite normal, really. He had brown hair down to his dirty jeans and a matching beard that moved and conducted with the jawing of his jaws. Only he was a little short with a slight build. No one outside of Boulder would have taken him for anything really special.

Everyone struggled with their altered states and listened with all their might. Outside the wind rose. Children's nightlights went out. Zoos murmured. And everyone listened, but it was much too much, too late, too loaded, and Madness stepped through our eyes and we all rushed Antler, grabbed him and flew off into Night.

Everyone, that is, except for Oscar. . . .

*

And every day and every night the bad craziness unfolded faster and faster. BUT WHERE WAS GINSBERG?

One day I saw him walking down some unknown Boulder boulevard, manila folder in hand. Unfortunately, I was on a bus going the opposite way. The story of my life. I saw the 10-speed, as if in a dream, coming down the hill on an intersecting street. I see that Ginsberg doesn't see it, the biker doesn't see him, it's too late for the biker to stop, Ginsy's arms fly up, there are papers all over the air, a little fear dance in him and the bike *just* misses him as I ride off into the sunsetful twilight. . . .

*

"Enjoy" was what I said to myself as I walked into the benefit, although benefit was not quite the word for it. Actually, it was another massive party thrown to help subsidize *Bombay Gin*, one of the local bohemian literary magazines.

"Ginsberg's gonna be here. He's gotta be. There ain't much summer left," I said to myself. I could feel it real strong again. Overwhelming presence. Late, I paid my two bucks at the door, stepped inside, and immediately a bottle of wine and a joint were passed my way. There was nothing out of the ordinary yet, except for the feeling.

The party was being held at the house of one of the martial arts instructors at Naropa. It was a modest ranch-style, nestled, like so many others, among the good growing vibes in Boulder. But nobody was going to wreck this house partying unless they want a foot or an elbow planted on their karma by somebody who had probably learned to fight from Tibetan holymen.

We were in the host's film, of course, and it was thanks to him that I walked onto the back patio and was met right off by the delicious sight of two large breasts held out naked and glistening over the edge of a large, steaming jacuzzi. There were people getting naked out there! Corso was handy, sitting on a sofa and smoking the ubiquitous joint with a host of disciples hanging on his every word. They were waiting for the key to Nirvana to drop on the mat of his insanity. There were six smiling and very naked people wrestling with each other on an over-sized waterbed. Music poured somewhere out of a roof of cool leaves suspended on extended trellises — Janis Joplin singing Gershwin's "Summertime." I decided to drink as much as possible as soon as possible.

I had just hooked down one glass of wine and was in the process of pouring another for myself and this cute Japanese chick who was in one of my classes, when I beheld the naked form of Ginsberg in all his fifty-year-old humility walk right in front of my stoned eyes

and over and into the tub. Peter Orlovsky, his eternal friend and lover, was already inside enjoying the company of several obviously buxom young ladies.

I downed the glass I had just poured for myself and then I drank the girl's too. I had to gather what courage was mine.

I walked over to the tub, took off my shy Ohioan clothes, and nonchalantly hopped in just in time to accept a roach passed wet-fingered from Peter.

"Hi (high)," was all I could manage.

"Hi," said everyone.

"But anyway, darling," went on Ginsberg to a girl with long, black hair and nice tits and ripply underwater bush, "I want to finish putting Blake's "Songs of Innocence" to music, although I won't have them all in time for the reading. . ." talking about the renaissance of poetry and song that was the happening that summer and about the poets who were putting the Music back in the Words.

And somewhere in an eerie tidal dream I hear Ginsberg say, "I'm putting together a band for the reading."

And out of a gently lapping Nowhere I hear a voice (*my* voice!) saying, "What do you need?"

And Ginsberg says to me, "Another trumpet, a bassman, and whatever else I can pick up. Do you play?"

"I play the tuba." And I really do play the tuba.

"Can you play this?" He puts his poet-face up to my ear and begins singing some strange melody in a *basso profundo* that is quite delightful: "Om Mani Padme Om, Om Mani . . ."

"Sure, but I need a bass."

"Great," says he, "Go see . . ."

Then everybody starts talking and yapping and singing, you see, and we all drink wine and cold beer in that tub until finally the whole scene is broken up by the Boulder policia in misty early-morning.

That's all really. It had been a brush with Ginsberg.

Post Script: We got the band together after two rehearsals. It was a great time. We even got bad reviews. . . .

William Weiss attended Ohio University and Cleveland State University. He is now employed in the Composition Systems department at Penton/IPC Publishing. He has recently published a book of poetry and short experimental fiction called Fallen Petals.

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