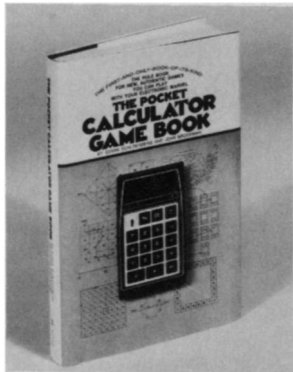


UNIQUE,
EDUCATIONAL,
CHALLENGING,
ENJOYABLE



by Edwin Schlossberg and
John Brockman

Real games for one or
more players and even the
simplest calculators.

To order, send name, address, check or
money order for \$6.95 hardcover; \$3.95
paperbound payable to Science News.
Add 75¢ for postage and handling.

Science News, Dept. CB-2
1719 N Street, N.W.
Washington, D.C. 20036

Payment enclosed for
 Hardcover \$6.95 + 75¢ handling/postage
 Softcover \$3.95 + 75¢ handling/postage

Name
Address
City, St. Zip

ABSTRACTS

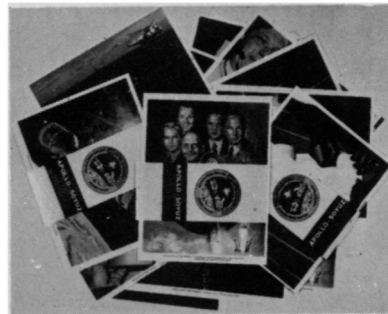
26th
International
Science
and
Engineering
Fair

Consists of 394 abstracts of the
projects of the Finalists in the
International Science and Engi-
neering Fair held in Oklahoma
City, Oklahoma, May 12-17,
1975.

Price \$2.50 each postpaid from

SCIENCE SERVICE
1719 N Street, N.W.
Washington, D.C. 20036

GIANT SPACE CATALOG OFFER NOW!



Buy a set of 16 magnificent 8" x 10"
color prints of photos taken on the
heralded U.S./Soviet APOLLO-SOYUZ
space Mission for just \$3.95 and receive
FREE in addition, our giant catalog of
35MM slides, photos, books, maps,
souvenirs, charts and prints of NASA's
achievements from Gemini III through
Apollo/Soyuz. Thousands of space-
related items included.

Catalog alone, \$1.50

SPACE PHOTOS
Dept. N
2608 Sunset Blvd.
Houston, Texas 77005

SN-14

WHAT'S YOUR I.Q.?

Test yourself, family, friends. Valid, unique,
fun! 10 years to adult. Reusable over and
over. Everything included: Test, Instruc-
tions, Scoring. Send \$5 to: Four Corners
Press, Dept. SSD, Hanover, Mass. 02339.

THE ENDLESS OCTAVE

An Auditory Illusion Record

A musical scale is repeated over and over. EACH and EVERY
note sounds higher than the preceding one, yet after ANY number
of notes have been played the scale is still in the middle of
the audible range. A DEMONSTRATION of PERCEPTUAL LIM-
ITATIONS in human hearing. A puzzling MIND TWISTER. Expla-
nation incl. ORDER NOW! Send \$2.50 + 50¢ postage and
handling (15¢ tax in Calif.) to:

THE ENDLESS OCTAVE
P O Box 176, Palo Alto, CA 94302

ARTS and SCIENCE CAMP

For teenagers 12-18, from all over the world. Program
focus on developing the creative use of ideas and talent.
Also: folk dance, recreational sports, projects, backpack-
ing. Strong, innovative, internationally known leadership.
High/Scope Educational Research Foundation, 600 N.
River, Ypsilanti, MI 48197



CALL TOLL FREE 24 HOURS, 7 DAYS: 800 243-6006 Conn. Res: 1-800-882-6500

Fibre Mats. "The Perfect Touch" to provide a
clean, elegant, and sporty look to any car (available
for every make, model, and year of U.S. or Im-
ported automobiles. These beautiful deluxe mats
are custom made for your car in Chicago, from
the finest imported coco matting. They feature a
heavy-duty heel pad on the driver's side, and are
edged with rugged, color-coordinated vinyl.

Fibre Mats have more than great looks. Unlike
everyday vinyl floor mats, Fibre Mats are highly
absorbent, eliminating puddles underfoot. This
helps prevent rust and mildew, suppresses noise,
and they always look clean - no more scuffs,
ground in dirt marks, etc. Enjoy tailored luxury in
your choice of sharp interior-coordinated colors:
Coconut Brown (as shown above), Natural Tan,
Jet Black, Coir Red, British Green, Black w/Gold
Dots, Storm Blue, Black w/Red Dots.

2 Week Return Privilege

Please send me the following Fibre Mats as indi-
cated below. If not completely satisfied I can
return them within two weeks for an immediate
refund.

Make of Car #1 _____ Model _____ Year _____

Make of Car #2 _____ Model _____ Year _____

Color Choices(s) _____

Front Set(s) @ \$24.95 ea. Rear Set(s) @ \$12.95 ea.

Front & Rear Set(s) @ \$34.95 ea. Rear Deck(s)

(Back of Station Wagon, Hatchback, etc.) @ \$34.95 ea.

Trunk @ \$34.95 ea.

Please include \$3.50 shipping and insurance per set

ordered.

Check or M.O. Enclosed (Conn. res. add 7% sales tax)

Please Charge My Credit Card:

American Express BankAmericard Carte

Diners Club Master Charge Carte

Credit Card # _____

Master Charge Bank # _____ Exp. Date _____

Name _____

Address _____

City _____ State _____ Zip _____

Signature _____

new concepts 158 Silvermine Ave.
Norwalk, Ct. 06850



WORLD'S SMALLEST ELECTRONIC CALCULATOR...\$19.95!

Does Everything Big Ones Do

Small but mighty! 8-digit, 4-function electronic calculator even has automatic % key . . . for only \$19.95. Take it anywhere. Carry it in your pocket or purse — it's 2/3 the size of a pack of cigarettes. This 3 1/2-ounce dynamo features floating decimal, constant key, lead zero depression, clear entry, more! At Edmund's low price, the unit comes with a Ni-Cad rechargeable battery pack that can plug into any AC outlet. No need for special recharging adapters. Calculator overall is just 2 x 3 1/2 x 3/8" with plenty of room for most fingers. Another Edmund first with advanced technology. **\$19.95** ppd.

STOCK NO. 1945Q Only **\$19.95** ppd.

GIANT FREE CATALOG!

NEW. 172 Pages. Over 4,500 Unusual Bargains for Hobbyists, Schools, Industry.



JUST CHECK COUPON!

EDMUND SCIENTIFIC CO.
300 EDSCORP BUILDING
Barrington, N. J. 08007

America's Greatest
Science • Optics • Hobby Mart

COMPLETE AND MAIL COUPON NOW

EDMUND SCIENTIFIC CO. 300 Edscorp Bldg., Barrington, N. J. 08007

SEND FREE

172 PAGE CATALOG "Q"

Charge my BankAmericard

Charge my Master Charge

Interbank No. _____

Card No. _____

Expiration Date _____

30-DAY MONEY-BACK GUARANTEE. You must be satisfied or return any purchase in 30 days for full refund.

City _____ State _____ Zip _____

Send me:

ELECTRONIC CALCULATOR(S)

@ \$19.95 ea. (No. 1945Q) \$ _____

Service and handling charge \$ _____ \$1.00

Enclosed is

check, m.o. in amount of \$ _____

Signature _____

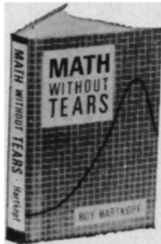
Name _____

Please print

Address _____

HELPING TO DEVELOP AMERICA'S TECHNOLOGY FOR OVER 30 YEARS.

MATH WITHOUT TEARS



In lively non-technical language Roy Hartkopf gives you a basic understanding of many of the everyday applications of mathematics.

Emphasizing the practical aspects of math, the author avoids mathematical terms and jargon and takes the reader from simple counting to trigonometry and calculus.

MATH WITHOUT TEARS is written with a light touch and is filled with interesting anecdotes, spiced with humor.

Learn math in the comfort of your own home at minimum cost. ORDER NOW: \$6.95, plus 50¢ handling 10-Day Money-Back Guar.

EMERSON BOOKS, Inc., Dept. 986B
Buchanan, N.Y. 10511

BY J.T. Fraser- OF TIME, PASSION, AND KNOWLEDGE

Reflections on the Strategy of Existence

WHAT THE REVIEWERS ARE SAYING!

* "Fraser once again elicits our awe... Impressive in scope, always understandable." *CHOICE*

* "An expansive, open-ended view of time." *AMERICAN SCIENTIST*

* "Fraser's style and wit, his gift for integrating unexpected elements and enthusiasm... come across on every page." *SOCIAL SCIENCE*

* "An exasperating but beautiful book... its focus is man... the specialness of being human." *INTERNATIONAL HERALD TRIBUNE*

* "Not a book at all, but a universe of thought." *KIRKUS REVIEW*

* "Highly recommended to scholars of any persuasion." *THE PSYCHOANALYTIC QUARTERLY*

LITTLE PROFESSOR BOOK CENTER

PLAYHOUSE SQUARE, WESTPORT, CONNECTICUT 06880

Publisher's list price: \$20.00. 20% professional discount with this coupon: \$16.00.

Name _____

Address _____

Add \$1.00 for postage and handling and local taxes where applicable. For overseas delivery allow three weeks.

How to Argue and Win!



Here is a clear simply written basic guide to logical thinking, showing how to spot the fallacies, the prejudices and emotionalism, the inappropriate analogies, etc., in the other fellow's argument and how to watch for and avoid the irrational in your own judgments. The author makes plain not only how but also why people resist facing the truth.

A tool for clear thinking as well as convincing others. ORDER NOW:

THE ART OF ARGUMENT, By Giles St. Aubyn
\$5.95 plus 50¢ handling 10-Day Money-Back Guar.

EMERSON BOOKS, Inc., Dept. 985B
Buchanan, N.Y. 10511

new drugs from marijuana



ANOTHER SIDE OF MARIJUANA RESEARCH
Length: 58 minutes
Price: \$17.00

An exclusive roundtable discussion (on tape) featuring reknowned scientists from SHARPS Associates, Cambridge, Mass. A fascinating inside look at how potent new drugs are being developed from marijuana-like chemicals.

DRUGS FROM THE CANNABINOID NUCLEUS
Length: 174 minutes
7 Speakers—108 Figures
Price: \$17.00

The Speakers:

H. G. Pars—*Introduction to Symposium*

R. K. Razdan—*Heterocyclic Analogs*

N. P. Plotnikoff—*Anticonvulsant Activity of New Benzopyrans*

A. T. Dren—*Sedative-Hypnotic Actions of Two Related Nitrogen-Containing Benzopyran Analogs in Cats and Rhesus Monkeys*

L. S. Harris—*Heterocyclic Benzopyrans with Narcotic Antagonist Properties*

J. E. Villarreal—*Evaluation of Selected Nitrogen Analogs for Morphine-Like Physical Dependence in the Rhesus Monkey*

A. S. Keats—*Preliminary Clinical Studies with Two Nitrogen Analogs*

AVAILABLE ON TAPE

CASSETTES ONLY

PRICES: \$17.00 per Title
\$25.00 for BOTH Titles

Order From:
American Chemical Society
1155 Sixteenth Street, N.W.
Washington, D.C. 20036
Dept. AP

Name _____

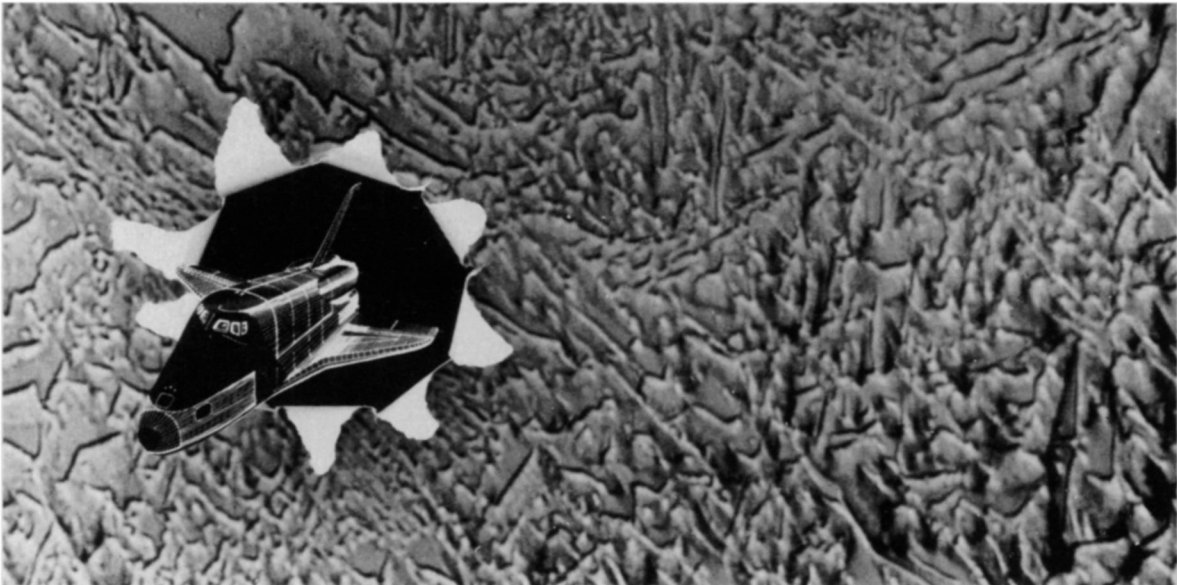
Address _____

City _____

State _____ Zip _____

Conversation Pieces

Planning for Breakthroughs in Materials Technology



What can the Space Shuttle and Spacelab programs really be expected to do for technology and, ultimately, for mankind? Well, let's ignore the gee-whiz stuff. Let's stick to practical probabilities, beginning with medical technology.

Manufacturers of serums, vaccines, antibiotics, and other biomedical products, strive constantly for purity. But, on earth, it's very difficult to separate different kinds of living cells. It only takes a tiny minority of unwanted cells to contaminate an almost perfectly purified culture. Minute differences in the electrical charge on each type of cell could be used to achieve significantly better separation if it weren't for gravity. So, suspend your media in zero-g, apply an electrical field and various cells can be withdrawn with the most delicate precision.

Or, suppose you're a metallurgist, interested in alloys; earth's gravity tends to separate the components of many melts as they cool and harden. In zero-g, mixtures tend to stay uniformly mixed. The same goes for cool mixtures of fluids that differ in density. Immiscible on earth, they're easily kept homogeneous in zero-g.

Crystal-growers face similar problems. The benefits that zero-g processing can bring to makers of semiconductors alone are considerable. As for that curious noncrystal, glass, the prospects for optical technology are exciting, to say the least.

One of the greatest attractions of space manufacturing is containerless processing. On earth, even vessels that

seem perfectly clean can actually contaminate their contents by reacting at the high temperatures that are essential to many processes. In zero-g, you can contain melts in electrostatic, magnetic, or acoustic fields; power requirements are low yet contaminants are quite easy to keep out.

The combination of zero-g and vacuum, that's available in orbital flight, is expected to facilitate developments in materials technology that range from difficult to impossible on earth. But the breakthroughs, whether they're surprising or reasonably predictable, aren't going to come automatically. It's going to take very careful planning.

At TRW, we have a team of systems engineers working the cost, schedule, and technical tradeoffs right now. They're supported by biologists, chemists, and physicists, who cut their teeth on difficult processing problems. We're working closely with NASA and other government agencies and we're teamed on specific projects with Beckman Instruments, Owens-Illinois, and U.S. Steel. By starting so early and proceeding with care, we hope to help develop new materials that will benefit everybody.

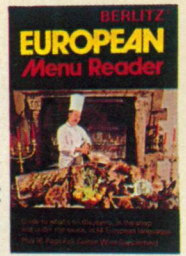
TRW
SYSTEMS GROUP

Marketing Communications, E2/9043
One Space Park Redondo Beach, California 90278



FREE! if you
order a course
now! . . .

**A copy of the New Berlitz
European Menu Reader,
just published at \$2.95.**



A unique dictionary for the person who wants to know what he's ordering and eating.

More than 300 pages. Not a simple translation, but a comprehensive directory of what's in the soup and under the sauce in 14 different languages. The European Menu Reader slips easily into pocket or purse—is indispensable on a trip (or even when dining out locally).

Contains color-indexed, alphabetically arranged sections for the following cuisines: Danish, Dutch, Finnish, French, German, Greek, Italian, Norwegian, Polish, Portuguese, Russian, Serbo-Croatian, Spanish and Swedish.

Complete with special 16-page full-color supplement on European wines and vineyard area maps.

What would you give to learn a second language? (Try \$85.) And what's it worth to your company?

There's a premium being paid for language-knowledge in America today—and it's not only in the export trade. In multinational companies, in major cities, even on the factory floor, a second language marks you as the potential spokesman, the well-educated leader, the man to ask about foreign ways.

And travel is so much more fun when you can meet people and talk their language. Now you can. Easily. Painlessly. All thanks to this 50-lesson do-it-yourself Berlitz® language course. Available in French, German, Italian or Spanish—it's yours for only \$85.00.

Packaged solidly in leather-type binding, the Berlitz Comprehensive Cassette Course contains:

1. Ten introductory lessons in a 90-minute long first cassette to familiarize you with the spoken language.
2. Forty additional lessons on five convenient 60-minute cassettes, making a total of 6½ hours of recorded instruction in all.
3. 6 illustrated workbooks to use with the tapes, each containing 50 pages of easy-to-understand, concise information to help you speak with the least difficulty. 300 pages, in all, to get you on the way to fluency in a second language.
4. A specially prepared, easy-to-use Rotary Verb Finder will help you with irregular verb forms—once you're ready for grammar.

This course avoids the dry and the dull—mixes voices, sound effects and useful text in the delightful manner only Berlitz, the world's best known language instructor, can offer. And cassettes don't scratch, don't warp and don't unwind—last almost indefinitely. Best of all, they are easy to stick in your pocket, take along on a trip or use in the car.

Prepare yourself for a rewarding future. At the same time, enjoy the social advantages only a second language can bring. For \$85.00, choose the course you need to start talking like a native. Use the coupon and order today.

MONEY BACK GUARANTEE Try this Berlitz course for ten days. If you are not satisfied for any reason, simply return it, and obtain a complete refund. You take no risk, so order today.



**More Information Wanted? Pick up the phone
(our expense) and Dial 800-327-8351
(Florida Residents Dial 800-432-7521)**

Our operator can take your order by phone—even on a credit card—or can answer your questions on this Berlitz Course immediately. Why not give us a ring—right now.

MAIL-PHONE COUPON

**Berlitz Publications, Inc., Dept. 9392
4500 N.W. 135th St., Miami, Florida 33059**

YES! Send me your Berlitz Comprehensive Cassette Course Today at \$85.00 each, plus \$2.00 each to cover postage and handling.

- French 96100 German 96101 Italian 96102 Spanish 96103

Plus, send me my copy of the new European Menu Reader FREE!

Name _____
Address _____
City _____ State _____ Zip _____

Please check method of payment:

- Check or money order—payable to Berlitz Publications, Inc.
 American Express Carte Blanche
 BankAmericard Diners Club Master Charge

Credit Card No. _____

Expiration Date _____

Interbank No. Master Charge Only _____
(Located above your name)

Signature _____

Allow 3 to 4 weeks for delivery.

New York and Florida residents add sales tax.

SN-1