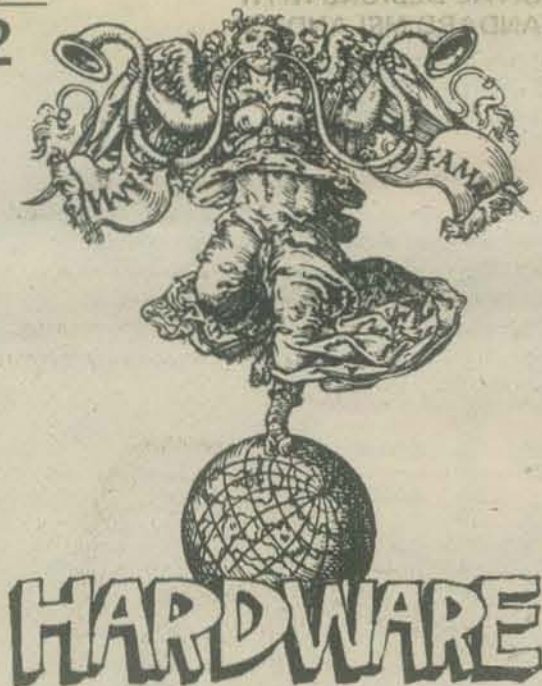


THE BIGGER BOOK STORE CATALOG

FROM

P.C.C.
PEOPLES COMPUTER CO.





TV TYPEWRITER COOKBOOK

Don Lancaster 1976 256 pp \$9.95

Another fine "cookbook" from Don Lancaster! And it really is a cookbook, not just a recipe book. Although there are plenty of schematics, the emphasis is on what the problems are in designing a TV typewriter and various ways of solving those problems.

THE TEXTBOOK OF VIDEO GAME LOGIC VOL. I

Joel Miller 1976 112 pp \$14.95

The *Textbook of Video Game Logic* not only describes how the video game computer itself works, but also the operation of all basic digital logic devices. The book is primarily oriented to video game designers and technicians, but anybody interested either in video games or in digital logic applications will find a great deal of valuable material.

8080 PROGRAMMING FOR LOGIC DESIGN

Adam Osborne \$7.50

8080 Programming For Logic Design is the first book in the world which directly addresses the problem of using a microprocessor as a digital logic device. The reason microprocessors are so misunderstood is that up to now programming and combinatorial logic design have been separate and distinct disciplines, with no common implementation goals. A programmer did not need to know how his computer, or computers in general were implemented. Conversely, a logic designer could get by for a lifetime knowing nothing about programming. But all that has changed. Once a microprocessor makes its way into a product, a logic designer has a small part of the total skills needed to make the product happen; a programmer has another small part of the needed skill; neither programming knowledge without digital logic background, nor logic design skills without a programming background, is of much value when using microprocessors.

It is not until a programmer understands logic and a logic designer understands programming that a new generation of engineers, able to work with microprocessors, will have been created. *8080 Programming For Logic Design* bridges this gap — for the world's most popular microprocessor, the 8080A. Whether you are an assembly language programmer or a logic designer, this book will teach you what you need to know about the other discipline: and it will give you this information as it pertains to the use of microprocessors.

INTRODUCTION TO MICROCOMPUTERS

Adam Osborne 1976 2nd Edition

VOL I — Basic Concepts 380 pp \$7.50

VOL II — Some Real Products 900 pp \$12.50

The second edition of *An Introduction to Microcomputers* has been revised and expanded to two volumes, to keep up with the fast-moving microcomputer industry's pace of change. Have things changed that much in just 5 months? You probably know the answer to that already: a flood of new and second-source CPU chips and a whole host of new LSI support packages. Nowhere else can you get all this vital information. *Volume I — Basic Concepts* surveys the subject, from elementary concepts to system configuration and design. In *Volume II — Some Real Products* the coverage given real products in Chapter 7 of the first edition differs markedly. The first edition attempted to describe real products superficially, so a reader would have some understanding of product scope but no understanding of product performance. Given the new book, you will need no additional documentation, other than data sheets, in order to use any microprocessor or support package described. In particular, the most popular microcomputers are described in considerably more detail than even the vendors' own literature.

For example, coverage of the 8080A includes a detailed description of how to use the Call instruction as an interrupt response. The 8080A instruction set can be divided into 19 categories by instruction execution timing. All 19 timing diagrams are given.

Volume II describes products that are only now appearing on the market. These include: The 8259 Priority Interrupt Control Unit from Intel; The 8253 Programmable Counter Timer from Intel; The 8257 Direct Memory Access control device from Intel; The 6028 Priority Interrupt Controller from Motorola; The 6875 USART from Motorola; The M6700 single chip microcomputer from Motorola; The 10800 family of chip slice logic from Motorola; The single chip F-8 from Fairchild; The EA9002 microprocessor from Electronic Arrays.

In fact, some of the product description provided in Volume II will precede even the manufacturer's own documentation for the same parts.

BUILD YOUR OWN WORKING ROBOT

David L. Heiserman 1976 \$5.95

A step by step explanation of making your own working robot. The final version is capable of:

1. chasing the cat
2. wandering around for hours
3. finding its battery charger when it's low
4. responding to commands from you, the master.

This project is not for novices — you'll need experience with TTL technology, transistor amps, control circuits, and a working knowledge of Boolean algebra.

THE BUGBOOK I & II and INSTRUCTORS WORKBOOK

Rony, Larsen & Braden 1974
2 volumes + workbook \$19.95

Ninety logic and memory experiments with TTL Integrated Circuits with much of the 'dog-work' of putting the less glamorous submodules together, already done.



TTL COOKBOOK

Don Lancaster 1974 328 pp \$7.95

The author discusses what is required to understand and use transistor logic, assuming the reader is familiar with electronics up to and including transistors. Covers basics of construction and a discussion of the different types of TTL. An excellent instructional aid which doubles as a quick reference guide to the 7400 series.

ACTIVE FILTER COOKBOOK

Don Lancaster 1975 240 pp \$14.95

This book shows how to select and design the filter that you want. Using simple math, you can design basic filters, operational amplifiers, tunable filters. Get this book and activate.

THE BUGBOOK III

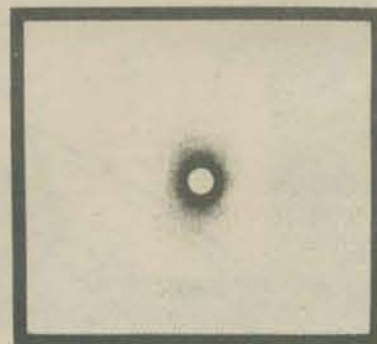
Rony, Larsen & Titus 1975 \$14.95

The entire 8080 instruction set is discussed in detail. This big paperback is about interfacing the Mark 80 computer to the real world.

FUNDAMENTALS AND APPLICATIONS OF DIGITAL LOGIC CIRCUITS

Sol Libes 1975 192 pp \$5.98

Learn the basics of digital logic. Enough info to be used as a reference for deconfusing semiconductors, logic and logic classes, binary arithmetic, memory types, and analog-digital devices.



MINICOMPUTERS: STRUCTURE AND PROGRAMMING

T.G. Lewis and J.W. Doerr
H(5642-7) 1976 288 pp \$8.95

This introductory textbook on assembly language, machine architecture, and small machine algorithms is designed to be used in a hands-on laboratory course. The authors believe that the use of mini's in the classroom offers more benefits today than the use of a large-scale central computer. The text is designed to be an introduction to computer science through the use of small computers. It thoroughly introduces the reader to mini hardware and then covers all the essentials needed to program a minicomputer.

Section I (Preliminaries) covers number conversion, codes, and provides basic review. Section II (Minicomputing) includes an exceptional chapter on computer organization communications and peripheral devices, and goes on to define a minicomputer. The third section on Software Engineering covers the programming of the PDP-11 minicomputer and algorithms for small machines. Section IV on Microcomputing ends with a chapter on microprogramming.

ELECTRONIC SYSTEMS: Theory and Design
Henry Zanger 333 pp \$15.95 Jan 1977

Instead of spending hours designing your own circuits, lighten your work load by using the easy-to-apply packaged circuits in this guide — ready to snap into your system for top performance and reliability. From the basic black box to entire systems, the guide shows how to use the latest components and devices to speed up designing of any system — whatever the application. And each ready-to-use circuit package comes complete with manufacturers' specifications — saving you even more design time! **PARTIAL CONTENTS:** System Characteristics; System Analysis; Laplace Transform; Signal Analysis and System Accuracy; Transducers; System Components; Digital Elements; Displays; Communications Systems; Amplitude Modulation; The Complete Telemetry Package; Instrumentation; Monitoring; etc.



DIGITAL THEORY AND EXPERIMENTATION USING INTEGRATED CIRCUITS
Morris E. Levine 240 pp \$11.95 1974

Master IC's by actually using them with digital circuitry — just as you would on-the-job! This manual not only spells out IC's for you, it hands you twenty-two experiments putting you in charge of IC's in short order. Here are experiments illustrated in 184 drawings and photos on logic and Boolean algebra, counters and memories, shift registers, encoding and decoding, pulse generation and shaping, the IC Schmitt Trigger, numeric displays and the use of the operational amplifier in digital circuitry.

COMPUTER SYSTEM ORGANIZATION
The B5700/B6700 Series
Elliott L. Organick
A (ISBN 0-12-528250-8)
1973 132 pp \$10.50

An Overview; Block Structured Processes and the B6700 Job; Basic Data Structures for B6700; Tasking; Stack Structure and Stack Ownership; Software Interrupts; On Storage Control Strategies; The B6700 Pro and Con; Some Hardware Details of Procedure Entry and Return and Tasking.

PRINCIPLES AND PRACTICE OF ELECTRONIC MUSIC
Gilbert Trythall 1973 214 pp \$6.95

The first few chapters are concerned with the relationship between waveform and sound quality, and with the elementary electronic concepts one needs to know in order to produce the desired waveforms. At this point the author begins to build, piece by piece, and electronic music studio — your own synthesis and recording facility. Uncle Gilbert tells how to translate conventional musical notation of all forms into synthesis instructions. Also included is a brief history of electronic music, how to get and protect a copyright and a 200 word glossary of electronic music terminology. Very elementary and nothing about computer music.

ELECTRONIC PROJECTS FOR MUSICIANS
Craig Anderton 1975 134 pp \$6.95

The first 4 chapters are an introduction to basic electronics, the fifth contains 19 projects including a preamp, metronome, 8-in one-out Mixer, electronic foot switch and ultra-fuzz, concluding with a section on trouble-shooting and access to further information. The best book we have seen for the beginning kit builder.

MASTER HANDBOOK OF DIGITAL LOGIC APPLICATIONS (TAB 874)
William L. Hunter 1976 392 pp \$7.95

This new volume is a reference covering more than ordinary TTL... it's a modern sourcebook of design data on today's digital devices and logic systems that goes far beyond the usual requirements of common transistor/transistor logic.

It's devoted to the problems that can be solved by power-stingy CMOS, noise-immune high-threshold logic (HTL), and super high-speed emitter-coupled logic (ECL), as well as the old standby, TTL. For those demanding applications, two Chapters cover special discrete logic circuits and techniques using miniature transistors and FETs. **CONTENTS:** Understanding Digital Logic—Discrete Logic and Special Logic Techniques—Noise Immunity: CMOS vs Bipolar Logic—High-Threshold Logic—FET's: Theory and Logic Applications—Emitter-Coupled Logic Operation—Emitter-Coupled Logic Interconnection Techniques—High-Frequency Digital Applications—Index.

DIGITAL COMPUTER FUNDAMENTALS
Jefferson C. Boyce 420 pp \$15.95 Jan 1977

New! Scores of practical, easy-to-follow design techniques help you operate and maintain any digital computer system at maximum efficiency! This ready-to-use guide to computer care gives you all the how-to methods of counting, decoding, and multiplexing — complex computer functions — using logic circuits — applying machine language.

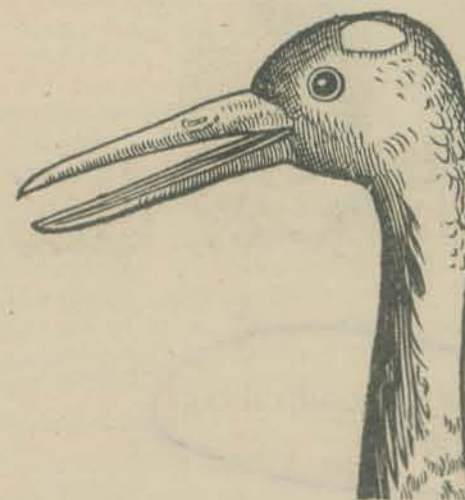
at maximum efficiency! This ready-to-use guide to computer care gives you all the how-to methods of counting, decoding, and multiplexing complex computer functions — using logic circuits — applying machine language, assembly language, high-level language, and operating system terminology — to name just a few.

RTTY HANDBOOK (TAB 597)
Wayne Green, Ed. 1972 320 pp 1972
\$6.95 paper

Here is an up-to-date, all-in-one handbook on all phases of radioteletype — from basic principles through the construction of sophisticated equipment and test apparatus. For both the veteran and the beginning RTTY enthusiast, this volume provides an extensive coverage of amateur radioteletype today. Ideas, useful projects, background, theory of operation, and construction of complete units are all included in the writings of a host of experienced RTTY operators. **CONTENTS:** Getting Started in RTTY—Basic Principles of RTTY—Equipment—Terminal Units—Frequency Shift Keying—Audio Frequency Shift Keying—Interconnections and Control Circuits—Tuning—Reading and Care of Tape—FCC Regulations—RTTY Art—Improving Reception—Filters—Autostart Accessories—Index.

DIGITAL DESIGNS WITH STANDARD MSI AND LSI
Thomas R. Blakeslee
W(0 471 07937-5)
1975 357 pp \$21.25

A novel, original approach to designing with today's MSI and LSI circuits which shows how to use standard low-priced components to handle most system requirements. Blakeslee teaches how to minimize IC package count; offers detailed programming techniques; demonstrates handling of design problems such as race conditions, hangup states, noise, reflections, and crosstalk.

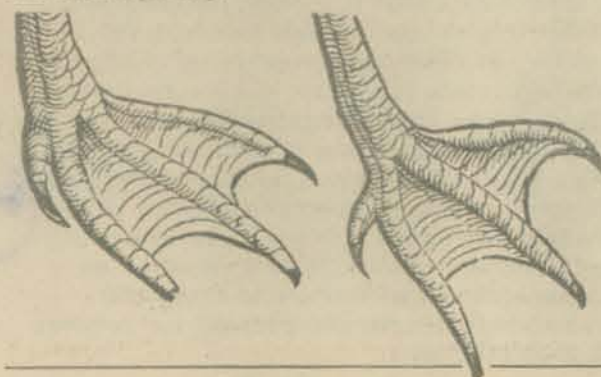


COMPUTER CIRCUIT ANALYSIS: Theory & Application
Frank A. Horn 416 pp \$17.50 1976

Find the fastest route to solving all your circuit analysis problems with this handbook's clear-cut ready-to-use circuit applications. You'll save hours of analysis time with scores of simplified applications for semiconducting switching devices, such as diodes — transistors — tools for improving transient response — and more. For the quickest ways to design any circuit, this handbook gives you hundreds of techniques for using astable and monostable multivibrators — basic bistable and modern logic flip-flop — resistor-transistor logic RTL — and packaging methods for every kind of digital circuit.

COMPUTER SYSTEM ARCHITECTURE
M. Morris Mano 480 pp \$17.95 1976

Here's a virtual blueprint for organizing and designing digital computers, practically and economically. You'll find over 30 different digital functions mapped out for you, with complete descriptions of their internal and external characteristics — so you'll gain total mastery of every digital function, including registers, counters, decoders, multiplexers, RAMs and ROMs — plus a complete repertoire of computer modules. This handbook gives you an easy-to-use register transfer language aiding you in linking up the precise digital functions you need for a more concise, efficient computer structure. Too, you'll gain more input control with the handbook's sequential circuit, timing signal, and memory techniques. And software methods program your system for maximum capability.





HANDBOOK OF LOGIC CIRCUITS

A Reston Book

John D. Lenk 307 pp \$15.95

Announcing your one on-the-job logic circuit simplifier! You get 200 ready-to-use working circuits for fast, time-tested implementation in all your design work and over 300 crystal-clear diagrams, tables, charts and formulas — from truth tables and equations to design alternatives and clock system illustrations — guaranteed to make all your design problems memories. You'll have specific logic circuits for meeting all your major demands, including decoder and encoder networks, comparators, data distributors and selectors, adders and subtractors, plus complete coverage of flip-flops, counters, registers and shifting elements.

HIGH-LEVEL LANGUAGE COMPUTER ARCHITECTURE

Yaohan Chu, Ed.

A (ISBN 0-12-174150-8)

1975 288 pp \$29.50

Contents: Concepts of High-Level Language Computer Architecture; Design Concepts of Japanese Language Data Processing Systems; A Survey of High-Level Language Computer Architecture; Architecture of Stack Machines; Architecture of the SYMBOL Computer System; Conceptual Design of a Direct High-Level Language Processor; Architectural Design of an APL Processor. Index.

DIGITAL TROUBLESHOOTING

Richard Gasperini 1975 90pp \$9.95

This book introduces the reader to the fundamentals of bipolar and MOS technology, explains how to read logic diagrams, and discusses basic tools and diagnostic methods. It then covers the use of common digital circuits such as decoders, multiplexers, flip-flops, buffers, counters, and shift registers. The book does assume some prior knowledge of electronics, but not of digital circuitry. It discusses the use of memory and display devices, and gives many useful tips on soldering and unsoldering ICs, obtaining replacement parts, etc. Chapter 18 contains some good suggestions on obtaining additional information, and an appendix explains how to interpret manufacturer's part numbers, such as SN74LS195N.

—Jim Day

SOFTWARE

WHAT TO DO AFTER YOU HIT RETURN or P.C.C.'s First Book of Computer Games

PCC 1975 157 pp \$6.95

A fantastic book of computer games written in BASIC — number games, verbal games, science fiction games, all in the outrageous style of *People's Computer Company*. A big book, crammed to the margins with tasty tidbits — strategies, treks to the stars, simulations, wumpus hunts, and much more. Destined to be one of those books.

BASIC BASIC

James S. Coan 1970 256 pp \$3.95

This book is an attempt to incorporate computer programming, using BASIC and the teaching of mathematics. The first seven chapters may be studied concurrently with a first year algebra course. Chapters 8 through 13 are applications oriented, covering many of the popular topics of precalculus mathematics, with all of the required algorithms developed in the text.

BASIC PROGRAMMING

Kemeny and Kurtz 1971 150 pp \$6.95

On the first day, Kemeny and Kurtz invented BASIC. Then they wrote a book. We don't recommend this book for learning BASIC but we do, do, do recommend it as a reference guide, applications resource, and idea generator for people who already know a little BASIC.

ALPHA-NUMERIC MUSIC WITH AMPLITUDE CONTROL

Malcolm T. Wright 1975 23 pp \$2.00

Program the Altair 8800 computer or any 8080 CPU chip for a complete 6 octave music system with tempo and duration control and DAC (digital-to-analog converter) for playback. Far out music! Or, far in!

MY COMPUTER LIKES ME WHEN I SPEAK IN BASIC

Bob Albrecht 1972 64 pp \$2.00

This "learn by doing" workbook introduces BASIC to young or old, with no previous computer experience or knowledge of programming.

TEACH YOURSELF BASIC VOLUMES VOLUMES 1 and 2

Bob Albrecht 1970 64 pp each \$2.95 ea

Written by a Dragon with a seventh grade mind, this set covers teletype fundamentals and BASIC instructions in Book 1 and more sophisticated instructions for the novice in Book 2. Slow and easy learning.

BASIC

Albrecht, Finkel, Brown

1973 325 pp \$4.95

A self-teaching text with self-tests at the end of each chapter and answers that refer back to the frame numbers in each chapter. You need no special math or science background to learn BASIC from this superb text. Includes strings, files, matrix operations, and invisible incantations.

FUN AND GAMES WITH THE COMPUTER

Edwin R. Sage 1975 360 pp \$5.95

An introductory text which teaches BASIC computer programming through games of chance and strategy. Most of the games in the text can be run on a minimum 4K computer and remainder on an 8K system.

101 BASIC COMPUTER GAMES

Editor, David Ahl 1974 250 pp \$7.50

This book contains instructions for 101 games, all in BASIC. Most games are simulations of sports, card games, board games and games of chance.

PCC GAMES PROGRAM LISTINGS

PCC 1974 31 pp \$2.00

This booklet contains the bare program listings of the computer games presented in Volumes I and II of *People's Computer Company*. They are written in HP 2000F time shared BASIC and may easily be modified for other systems.

PROBLEMS FOR COMPUTER SOLUTION

Gruenberger & Jaffray 1965 \$7.95

After you learn to talk to computers, what do you talk about? If you want inspiration, this book has 92 problems, something for everyone — easy stuff, hard stuff, math stuff, non-math stuff, all beautifully written.

PROGRAMMING PROVERBS

Henry F. Ledgard 1975 134 pp \$5.95

Principles of good programming with numerous examples to improve programming style and proficiency. Examples in ALGOL 60, BASIC, FORTRAN and PL/I. Long section on programming the game KRIEGSPIEL CHECKERS.

COMPUTER CHESS

Monroe Newborn

A (ISBN 0-12-517250-8)

1975 200 pp \$15.00

Introduction; History and Basic Principles; The Kotok; McCarthy Chess Program (U.S.A.) vs. the ITEP Chess Program (U.S.S.R.) (1966-1967); The Greenblatt Chess Program (1967); The First United States Computer Chess Championship (1970); The Second United States Computer Chess Championship (1971); The Third United States Computer Chess Championship (1972); Kaissa (1972); The Fourth United States Computer Chess Championship (1973); OSTRICH: A Description of a Chess Playing Program; Appendices.

SOFTWARE SYSTEMS PRINCIPLES:

A Survey

Peter Freeman 1975 600 pp \$16.95
SRA 13-4000

Covers the principles underlying the construction and operation of a wide range of modern software systems. Beginning with a review of the most important architectural features of present-day hardware, the book gives a solid introduction to operating systems, file and data-management systems, language and their translators, and system construction. *Software Systems Principles: A Survey* is designed to be used in several different ways: as an introduction to particular areas in preparation for further study; as a broad and self-contained study of software systems for those who need only a first-level introduction; and as supplementary resource material for courses that provide depth in one of the areas covered in this book.

COMPUTER PROBLEM SOLVING

R.P. Watkins

W(C-O-471-92168-8) 1974 162 pp \$9.95

Deals with the ways people solve computer problems. Designed for use in computer programming courses, the book encourages participation in examining how algorithms are developed and allows the student to expand his problem-solving skills through the exercises. CONTENTS: Heuristic and Programming; Algorithms and Flowcharts; Heuristics; Updating; Sorting; Look at Alternatives; Bugs in Problems; Problems for Human Solution.

CONCEPTS OF PROGRAMMING LANGUAGES

Mark Elsoh 1973 333 pp \$13.95
SRA 13-0922

An intermediate level text providing an introduction to the concepts of programming-language design and use. It covers the important structural characteristics of various prominent high-level languages.

APL: AN INTERACTIVE APPROACH, 2nd ed.

L. Gilman and A.J. Rose

W(W-O-471-30021-7) 1974 384 pp
paper \$10.95

Reflects the several versions of APL currently being offered (in particular, Scientific Time Sharing Corporation's APL, PLUS Time Sharing Service and IBM's APLSV Program Product). In recognition of APL's growing use in business applications, more examples and problems in this area have been included, and the book's content has undergone a modest shift in orientation toward commercial uses of APL. CONTENTS: Getting Started; Some Elementary Operations; Useful Tools; Additional Operations and Tools; Five More Primitive Dyadic Functions; Relational and Logical Functions; Algorithms; Reduction and Scanning; Order of Execution; Monadic and Circular Functions; Function Definition; The Syntax of Functions; Function Editing; Types of Variables; Workspace Movement; Managing the Active Workspace. Mixed Functions; Character Data; Mixed Functions for Ordering and Selecting; Still More Mixed Functions; Number Systems; Report Formatting; Branching; Diagnostic Aids; Multidimensional Arrays; Generalized Outer Product; Generalized Inner Product; Business and Engineering Applications; Input and Output. Introduction to Data Files; Shared Files; Shared Variables; APL Internals; More Tools and Techniques.

COMPILER CONSTRUCTION FOR DIGITAL COMPUTERS

D. Gries

W(W-O-471-32776-X) 1971 493 pp \$17.95

CONTENTS: Introduction; Grammars and Languages; The Scanner; Top-down Recognizers; Simple Precedence Grammars; Other Bottom-up Recognizers; Production Language; Runtime Storage Organization; Organizing Symbol Tables; The Data in the Symbol Table; Internal Forms of the Source Program; Introduction to Semantic Routines; Semantic Routines for ALGOL-like constructs; Allocation of Storage to Runtime Variables; Error Recovery; Interpreters; Code Generation; Code Optimization; Implementing Macros; Translator Writing Systems; Hints to the Compiler Writer; Appendix; References; Index.

STRUCTURED PROGRAMMING USING PL/C: AN ABECEDARIAN

G.M. Weinberg, N.F. Yasukawa and R. Marcus
W(W-O-471-92566-7) 1973 220 pp \$9.75

CONTENTS: Part I: Preliminary Steps to Programming — You and Your Computer; Basic Program Elements; Simple Flow of Control; Higher Program Elements; Putting It All Together; Part II: Data Structures — Strings; One-Dimensional Arrays; Multi-Dimensional Arrays; Structure Varieties; Putting It All Together; Part III: Program Structures — Blocks; Programmed Functions; Procedures; ON-Conditions; Putting It All Together; Part IV: Selected Topics — Input/Output Formatting; Other Data Types.

abecedarian - 1. A person learning the alphabet; beginning student. 2. any beginner or novice.

SCIENTIFIC ANALYSIS ON THE POCKET CALCULATOR

J.M. Smith

W(I-O-471-79997-1) 1975 380 pp \$12.95

Shows how to get the most out of a pocket calculator for scientific and engineering applications. Ideal for all forms of analysis, this book gives numerical techniques, approximations, tables, graphs, and flow charts for performing quick, accurate calculations. CONTENTS: INTRODUCTION TO POCKET CALCULATOR ANALYSIS; The Pocket Calculator; Difference Tables; Data Analysis, and Function Evaluation; NUMERICAL EVALUATION OF FUNCTIONS ON THE POCKET CALCULATOR; Elementary Analysis with the Pocket Calculator; Numerical Evaluation of Advanced Functions; ADVANCED ANALYSIS ON THE POCKET CALCULATOR; Fourier Analysis; Numerical Integration; Linear Systems Simulation; Chebyshev and Rational Polynomial Approximations for Analytic Substitution; Determining the Roots of a Function; Statistics and Probability; The Programmable Pocket Calculator. Optimization.

PRINCIPLES OF SYSTEMS PROGRAMMING

R. M. Graham

W(W-O-471-32100-1) 1975 422 pp \$16.95

Explains how to implement key components of modern software systems using realistic case studies. Emphasizes principles, objectives, and restraints and requires no specialized background. CONTENTS: Systems Programming; A Simple Operating System; Machine and Assembly Languages; Assemblers; Macros and Macro Processing; Loaders; Compiler Languages; Intran: A Simple Compiler; Pass One of Intran; Pass Two of Intran; Other Problems in Translation; Operating Systems; Process Control; Memory Management; Input and Output; Sharing, Privacy, and Protection.

AN INTRODUCTION TO COMPUTERS AND PROBLEM SOLVING

T. Hull, D. Day 3017 \$8.95

The purpose of this book is to explain the function of a computer and to solve a wide variety of interesting problems. The level of presentation is elementary in that no mathematics is required beyond a first course in high school algebra.

The book's emphasis is on understanding what is meant by an algorithm and why special languages are needed for the description of algorithms. FORTRAN has been chosen only because it is the language most likely to be available on whatever machine happens to be in use; however, the purpose of this book is not to give an exhaustive definition of FORTRAN. The authors consider the language to be merely one convenient way of describing algorithms so that they can be put on a computer, and therefore, only those features of FORTRAN that are necessary for understanding, and for use in applications, are described.

For the exercises in this book, almost any computer will serve the purpose and only a small amount of machine time is needed. Most of the exercises are divided into three kinds of questions. The A questions are mostly short drill questions. The B questions are reasonably straightforward assignments and the C questions are more difficult and sometimes introduce new ideas.

Table of Contents

1. Algorithms and Flow Charts
2. FORTRAN Programming
3. Stored-Program Computers
4. FORTRAN Arithmetic
5. FORTRAN Expressions
6. Input and Output
7. Projects
8. Subprograms

Appendix A: Assembly Language Programming
Appendix B: Summary of FORTRAN
Appendix C: Number Representation
Appendix D: Reference Material





INTRODUCTION TO COMPUTER SCIENCE

C. W. Gear 1973 461 pp \$12.95

Introduction to Computer Science and the accompanying language manuals are intended for a first course in computer science. The book covers problems-solving methods, the nature and capabilities of computers, organization of computer programs, and the structure of data used in computers. Text is language-independent.

MACROPROCESSORS: And Techniques for Portable Software

P.J. Brown

1974 244 pp \$16.50

CONTENTS: MACROPROCESSORS — Basic Concepts; Special-purpose and General-purpose; The IBM OS Macro-assembler; The PL/I Macro Processor; GPM and the TRAC Language; ML/I and STAGE 2; Communication Between Macros; Implementation; Uses and Limitations; Compiler-integrated Macros; **SOFTWARE PORTABILITY** — Use of Macros for Software Writing; Some Practitioners of DLIMPS; Making Compilers Portable; Families of Descriptive Languages; A PORTABILITY PROJECT — Description of the Project; the ALGEBRA System; The Kernel of LOWL; Mapping and Documentation; The LOWL Kernel Test Program; Listing of LOWL-TEST; MD-Logic and LOWL Extensions for ALGEBRA; Listing of ALGEBRA; Testing an Implementation of ALGEBRA; Writing Software in LOWL.

PROGRAMMING: AN INTRODUCTION TO COMPUTER TECHNIQUES

Ward Douglas Maurer

H-D 5453 1972 335 pp \$15.95

This text is designed for the second course in computer programming and assumes the student is familiar with a language such as FORTRAN, ALGOL or PL/I. The teaching focus is programming techniques, bypassing the grammar rules of various computer languages. The opening chapters provide the basic ideas of machine language: binary representation, floating point, shifting and masking, character codes, precision, subroutine calling, together with assembler concepts such as control cards and the various pseudo-operations. The programming techniques in the remaining chapters are taught with as little explicit reference to machine language as possible.

CONTENTS: Machine language; The assembler; Arrays; Lists; Searching and sorting; File processing; Subroutines; Character strings; Appendixes: Textbook machine language; FORTRAN; The binary number system; Checkout.

PRINCIPLES OF PROGRAM DESIGN

M.A. Jackson

A(ISBN 0-12-379050)

1975 310 pp \$22.75

Introduction; Structures and Components; Basic Design Techniques; Multiple Data Structures; Errors and Invalidity; Backtracking; Structure Clashes; Program Inversion; Complex Inversion; Multi-Threading; Systems and Programs; Optimization; Retrospect; Appendix-COBOL Language.

COMPUTER SCIENCE: A First Course, 2nd ed.

A.I. Forsythe, T.A. Keenan, E.I. Organick

E.I. Organick, W. Stenberg

W(W-O-471-26681-7) 1975 876 pp hard \$15.95

A new, improved edition of this comprehensive survey of the basic components of computer science. There has been an updating of important areas such as Programming, Structured Programming, Problem Solving, and other Computer Science Concepts. The quantity of exercises and problems has been increased. Instructor's Manual available. **CONTENTS:** Algorithms and Computers; The Flowchart Language; Constructing Algorithms; Procedures and Functions; Introduction to Data Processing; Numerical Approximation; Numerical Applications; String Processing; SAMOS; Selected Readings.

COMPUTER PROGRAMMING IN BASIC

Joseph P. Pavlovich & Thomas E. Tahan

H-D 6653 1971 368 pp \$8.95

This text provides a thorough treatment of the BASIC language for an introductory course in computer programming at the high school or first year college levels. By means of a problem-solving approach, each part of the BASIC language is presented through over 150 programs and examples illustrating both techniques and commands. Discussion of applicability and compatibility is not confined to one computer manufacturer, but refers to subtleties of the various compilers in use today by most hardware manufacturers. In this book BASIC emerges as a language as powerful as FORTRAN, yet much simpler to learn and use.

COMPUTER SCIENCE: Projects and Study Problems

A.I. Forsythe, E.I. Organick, R.P. Plummer

W(W-O-471-26683-3) 1973 292 pp \$7.50

CONTENTS: Projects- SAMOS Simulator; Plotting Graphs by Computer; Solving Sets of Simultaneous Linear Equations; The Eight Queens Problem; Instant Insanity; Payroll Calculation; The Perceptron — A Machine That Learns; Information Storage and Retrieval; Statistical Analysis of a Multiple Choice Quiz; Sorting Using Tapes; Manpower Allocation System; Record Keeping for a Rental Firm; Job Shop Simulation.

THEORY AND APPLICATION OF A BOTTOM-UP SYNTAX-DIRECTED TRANSLATOR

Harvey Abramson

A(ISBN 0-12-042650-1)

1973 160 pp \$12.50

Introduction. Grammars. The Analyzer. The Synthesizer. Compiling Basic. Appendixes. Subject Index.

TRANSLATION OF COMPUTER LANGUAGES

Frederick W. Weingarten

H-D 9423 1973 200 pp \$11.95

This book bridges a gap between formal language theory and the engineering of compilers. Through an intuitive and algorithmic approach that stresses the implementation of techniques, the author has made a sophisticated mathematical subject accessible to undergraduates for the first time. The text follows the first part of ACM's Course A-1, *Formal Languages and Syntactic Structures*, in Curriculum '68, but at a lower mathematical level. It will be a valuable reference for students of compiler writing, natural language translation, and computational linguistics, as well as computer programmers without a heavy mathematics background. **CONTENTS:** Preliminary concepts; Translation of arithmetic expressions; Formal models of grammars; Properties of formal grammars; Structure of binary translation trees; The top-down parse; The bottom-up parse; The left-right parse; Restricted grammars; Bounded context grammars; Precedence grammars; Bibliography; Index.

DATA STRUCTURES

Mark Elson 1975 450 pp \$14.50

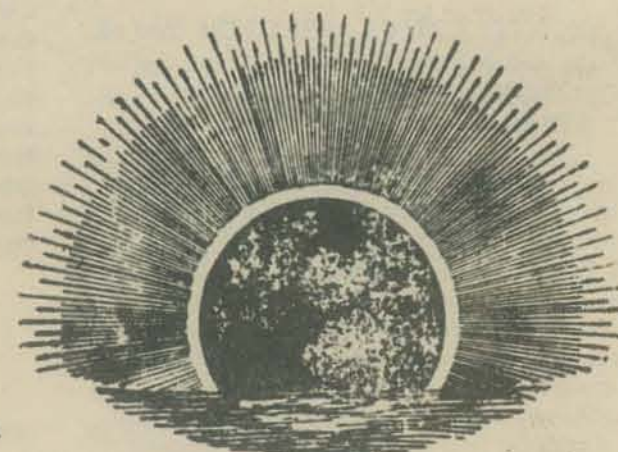
SRA 13-4020

An introduction to the study of theory and applications of data structures addressed primarily to computer science and computer engineering students. It is an intermediate level text covering the fundamental types of data structures used in computer science. Sorting and searching techniques are discussed, along with two special-purpose programming languages, LISP and SNOBOL. Coverage begins with the static structures usually provided directly in common programming languages: arrays and records. The book then moves to more dynamic structures: stacks, queues, deques, lists, trees, graphs, and plexes. String handling and storage management techniques are also discussed, along with several application areas: expression evaluation, game playing, and graph traversing.

ADVANCED BASIC

James S. Coan 1976 184 pp \$6.95

Advanced BASIC is all about what to do after *Basic BASIC*.



MY FRIEND THE COMPUTER

Jean Rice. 1976. \$17.95

This is two books—a study book and the teacher's manual. Written in a non-threatening style, this unusual book covers what computers are, their applications, history, and programming. Chock full of preprinted ditto masters and overhead transparencies ready to use in the classroom.

GAMES

KRYPTO GAME

Deal five cards. Now with the numbers showing on the five, try to make an equation which equals the object number. How do you get the object number? Deal a sixth card. You may use any of the common arithmetic operations, the only catch is; you must use all five of the original cards, and you may only use each one once. The instructions include several variations for different ability levels and different numbers of players.

If you buy this game, and if you use it, and if you don't agree that it's the best game on the market for this price, then tear up the cards, send us the pieces — along with a self-addressed stamped envelope — and we'll send you your money back.

\$1.50

MATH, WRITING AND GAMES IN THE OPEN CLASSROOM

Herbert R. Kohl 1974 252 pp \$2.45

A careful analysis of the ways in which games can be used for teaching. Descriptions of countless games and learning ideas that stimulate children's imagination so they can comprehend complex mathematical concepts, strategy and probability theory. Herbert Kohl loves kids — and it shows in his book.

GAMES WITH THE POCKET CALCULATOR

Thiagaragan & Stolovitch 1976 54 pp \$2.00

No tricks or puzzles, the 24 games in this book fall within the classical definition of interactive activities. They all involve an element of conflict and competition with rules for making moves and ending the game. Fast paced games that do not require being a mathematician or having more than one "four banger" per game.

101 BASIC COMPUTER GAMES

David Ahl, Ed. 1974 250 pp \$7.50

This book contains instructions for 101 games, all in BASIC. Most games are simulations of sports, card games, board games and games of chance.



FUN AND GAMES WITH THE COMPUTER

Edwin R. Sage 1975 360 pp \$5.95

An introductory text which teaches BASIC computer programming through games of chance and strategy. Most of the games in the text can be run on a minimum 4K computer and remainder on an 8K system.

PCC GAMES PROGRAM LISTINGS

PCC 1974 31 pp \$2.00

This booklet contains the bare program listings of the computer games presented in Volumes I and II of *People's Computer Company*. They're written in HP 2000F time shared BASIC and may easily be modified for other systems.

WHAT TO DO AFTER YOU HIT RETURN or PCC's First Book of Computer Games

PCC 1975 157 pp \$6.95

A fantastic book of computer games written in BASIC — number games, verbal games, science fiction games — all in the outrageous style of *People's Computer Company*. A big book, crammed to the margins with tasty tidbits — strategies, treks to the stars, simulations, wumpus hunts, and much more. Destined to be one of those books.

GAMES, TRUCKS AND PUZZLES FOR A HAND CALCULATOR

Wallace P. Judd 1974 100 pp \$2.95

This book is for anyone who owns or intends to purchase a hand calculator, from the most sophisticated to the basic "four banger." Also good clean fun.

COMPUTERS IN GENERAL

COMPUTERS AND SOCIETY

Second Edition

Stanley Rothman, Charles Mosmann

A revision of one of the most successful and innovative texts of its kind. Discusses the impact of the computer on social values and institutions based on technological considerations of what the computer is and can do. Begins with the traditional hardware and software concepts, then covers five major areas of application (education, health, public administration, law enforcement, and business). The authors present both positive and negative aspects of the subject. Highlights of the new edition include sections on mini computers, a chapter on artificial intelligence, completely updated technical material, and extended presentation of critical social issues such as privacy and abuse of power.

COMPUTERS AND THE SOCIAL ENVIRONMENT

F. Gruenberger

W(W-O-471-33002-7) 1975 164 pp \$9.95

Through an examination of the present use of electronic computers, the text introduces the student to the social implications. CONTENTS: What Computing Is; How a Computer Works; Problem Solving; How a Computer Installation Works; How to Produce Garbage; How the Computer Affects You; Computers and the Invasion of Privacy; Preparing for Life and Work in A Computerized Society.

THE THINKING COMPUTER

Mind Inside Matter

Bertram Raphael

WHF 723 1976 322 pp paper \$6.95

Artificial intelligence, or AI, is the branch of computer science concerned with making computers "smarter." It is a growing, vital field that is, unfortunately, the subject of much popular misunderstanding. *The Thinking Computer: Mind Inside Matter* is a lucid introduction to AI that does much to overcome this misunderstanding. With a minimum of technical jargon, this book discusses the capabilities of modern digital computers and how they are being used in contemporary artificial-intelligence research. It discusses the progress of AI, the goals of AI research, and the variety of current approaches to making the computer more intelligent.

The Thinking Computer takes an informal approach to its subject: important concepts are developed through the use of many specific examples from contemporary research and with many illustrations. Most of the book requires of the reader no mathematics beyond high-school algebra. Each chapter contains a summary and a list of sources for further reading. "The best, most lucid, most cogent of the recent few artificial intelligence books. The author is to be congratulated for his outstanding job!" —George Ledin, Jr., University of San Francisco. CONTENTS: About Computers; Representation; Search; Problem Solving Methods; Background and Formal Approaches; Problem Solving Methods; Informal and Combined Approaches; Natural Language; Perception; Robots; Frontier Applications; Epilogue; Index.

THE COMPLEAT COMPUTER

Dennie Van Tassel 250 pp \$5.95

A special collection of readings including short stories, poetry, humor and other materials all focusing on the effects of the computer on society. Although designed to complement *Computers and Society, Second Edition* (SRA, 1976), this book serves equally well as a supplement to any core text on the subject. Selections extend and comment upon the material in the main text and add fresh perspectives, as well. Many contrasting viewpoints are represented, stimulating discussion and critical thinking. A vast array of projects and exercises is included. The use of four-color art and many lively illustrations in a magazine format engage and reinforce student interest.

INTRODUCTION TO MICROCOMPUTERS AND MICROPROCESSORS

Arpad Barna, Dan I. Porat

W(O 471 05051-2) 1976 108 pp. \$10.50

A concise, basic introduction to microprocessors — what they are, how they work, and how to read the applications literature. Barna/Porat presents a balanced discussion of hardware and software, integrating the two through a broad range of topics. Describes basic structure of a microcomputer; arithmetic operations and circuits; central processor and control units; basic programming techniques. Includes information on input/output, memory, assemblers, loaders, data structures, and subroutine linkages. Over 120 examples facilitate self-study and each self-contained chapter permits selection of material for specific interests. For all electronics engineers, programmers, managers, technicians, and students.

COMPUTER LIB/DREAM MACHINES

Theodore Nelson 1974 186 pp \$7.00

Man has created the myth of the computer as cold, oppressive and sterile. This book sees them as veritable panoply of things and dreams. Enuf info for 3 books.



COMPUTER POWER AND HUMAN REASON

Joseph Weizenbaum
1976 300 \$9.95

This is a book that should be read by anyone seriously interested in or affected by computers, a recommendation that includes most of the population of the U.S. Professor Weizenbaum is a talented man who has been doing impressive work in computer science for a long time. Weizenbaum's central theme is that the range of human capabilities and concerns is both profoundly different from and immensely larger than anything a computer can do. Too many people in the Artificial Intelligence community of computer science research believe that there is no human activity that cannot eventually be done by a computer. Weizenbaum is strongly critical of this view; he rightly sees it as the worst kind of blind hubris.

In support of this central theme Weizenbaum deals with some necessary background material. He presents an explanation of the theoretical basis for the power of machine based information processing, including a treatment of Turing machines. These sections are not what I would call light reading, but attention to them offers the lay reader considerable insight into computer functioning.

Professor Weizenbaum has written a book of substantial importance. As man's information processing machines become ever more powerful and pervasive, it is vital that we use computers for human purposes, and not the other way around.

THE SCIENTIFIC PROCESS AND THE COMPUTER

D. N. Streeter

W(1-O-471-8330-4) 1974 468 pp \$20.25

CONTENTS: Introduction — Methods of Science and Technology; Roles of Computer-Based Services; Relative Capabilities; Man Versus Computer and Combined Capabilities; Man and Computer. Current Usage; Case Studies and Critiques — Data Collection; Examination; Problem Formulation; Design; Analysis and Optimization; Experimentation; Modeling Simulation; Documentation; Continuing Responsibility. Issues of Management — Definition of Objectives, Attributes and Measures; Quantification of Value of Services; Location/Allocation Problems; Evaluation; Control; Quality of the Man-System Interface. (CIP)

II CYBERNETIC FRONTIERS

Stewart Brand 1974 96 pp \$2.00

- I. Both sides of the necessary Paradox (Conversations with Gregory Bateson).
- II. Fanatic Life and Symbolic Death among the Computer Bums (Space war freaks should check this one out).

DATA PROCESSING IN 1980-1985

A Study of Potential Limitations to Progress

T.A. Dolotta, M.I. Bernstein, R.S. Dickson, Jr., N.A. France, B.A. Rosenblatt, D.M. Smith, T.B. Steel, Jr.

W(0 471 21786-7) 1976 191pp \$6.95 paper

As the title indicates, this SHARE Inc. study forecasts the problems the data processing industry will face in the near future. You will discover: Areas of planning and management where the industry is ill-equipped to meet the challenges of the future; Questions about industry standards and legislative issues that will grow in importance in coming years; Problems of education and technology transfer; Needed improvements in quality, reliability, availability, and adaptability as seen by end users of data processing systems. Covering specific questions of hardware and software as well as the overall data processing climate, this book is necessary reading for all managers and professionals in the field.

MICROPROCESSORS

Technology, Architecture, and Applications

Daniel R. McGlynn

W(0 471 58414-2) 1976 207 pp \$11.95

This introduction to the "computer-on-a-chip" provides a clear explanation of this important new device. It describes the computer elements and electronic semiconductor technologies that characterize microprocessors. In addition, the book presents an overview of the architecture and operations of various popular commercial microprocessors. McGlynn gives useful, actual examples of microprocessors that include a low-cost home computer, and automotive and telecommunication applications. Readers also find criteria for the selection of a microprocessor, microcomputer system design techniques, a review of semiconductor technology applicable to microprocessors, and more.

MICROPROCESSORS AND MICROCOMPUTERS

Branko Soucek

W(0 471 81391-5) 1976 607 pp. \$23.00

Here's a description of the application, programming, and interfacing techniques common to all microprocessors. It concentrates on detailed descriptions of representative microprocessor families and includes explanations of digital codes, logical systems and microcomputer organization. Soucek also presents the basics for design and use of microprocessor-oriented systems and coverage of new microprocessors and special purpose microsystems.

MICROPROCESSORS: NEW DIRECTIONS FOR DESIGNERS

Edward A. Torrero, Ed.

H(5777-6) 1975 144 pp

This valuable book offers convenient access to the growing applications and design features in the new world of microprocessors. It's a systematic compilation of the wealth of data, information, statistics, advice and suggestions on microprocessors that has recently appeared in *Electronic Design* magazine.

Included information: finding out just where the tremendous cost savings lie in the microprocessor boom; how to scan the range of available products to select the best ones for specific purposes; which manufacturers practically let you "write your own specs;" which products are soon to be released; which peripherals offer the greatest versatility and efficiency; the features, advantages, and "how-to" of different software; and much more!

INTRODUCTION TO COMPUTER ARCHITECTURE

Harold S. Stone 1975 500 pp \$16.95

Contains an edited collection of original articles exploring the structure of computer architecture from mini-computers to large-scale, high-speed computers. It is designed for students who have an elementary background in computer science and the material is not biased either to algorithmic computer science or logic design. The book presents and develops various ways of structuring computers from standard modules to achieve systems that satisfy various types of design restrictions. Detailed attention is given to the architecture of the central processor, memory, and input/output units of a computer.

THE BEST OF CREATIVE COMPUTING

Vol. I

David Ahl, Ed. 1976 328 pp \$8.95

The diversity here is staggering. Volume 1 has articles and fiction about computers, games for calculators and computers, cartoons, graphics, and book reviews. Over 170 authors represented in over 200 separate articles.

COMPUTERS AND COMPUTATION

Scientific American 1950 - 1971

280 pp \$6.00

Twenty-six articles from *Scientific American* about computers, what they are, how they happened, how they work and how they are used.



AN INTRODUCTION TO GENERAL SYSTEMS THINKING

Gerald M. Weinberg

W(0-471-92563-2) 1975 279 pp \$18.00

"Gerald Weinberg's book is a gold mine. Its approach is on *how* to think about things rather than *what* to think. . . To Weinberg, 'systems thinking' is the way people learn to create order out of the chaos around them." —Datamation "It is nothing short of a brilliant exposition of general systems theory written for sophisticated but non-specialist readers." — Library Journal

COMPUTERS: Appreciation, Applications, Implications

J.M. Adams and D. H. Haden

W(W-O-471-00457-X) 1973 584 pp \$14.95

CONTENTS: Computers: What are They; Programming the Computer; Formalizing Problem Solutions by Flowcharting; More Programming; Decisions and Loops; The Concept of Algorithm; Computer Applications and More Programming; More Computer Applications; History of Computation; Machine-Level Programming; Computer Hardware; Computer Programming Languages: A Survey; Nonnumeric Applications; Social and Economic Implications.

MATH & CALCULATOR MATH

NUMBERS: SHORTCUTS & PASTIMES

Jack Gilbert 1976 336 pp \$6.95

Even those people who've always had trouble with math will feel comfortable and self-assured with this remarkable text — it shows how to use a few basic mental exercises to perform highly involved (seemingly) mathematical calculations without a calculator... and without pencil and paper! It shows how to be first with the right answer in almost any situation!

Most of the real-life problems we encounter in our everyday life are problems involving estimation to at least some extent. In this book, several chapters are devoted to the art of estimating with a precision that exceeds even those multidigit calculators. The second half of this two-part volume is packed with parlor tricks, games and puzzles that will show off new-found skills at trimming numbers down to size, and that will amuse and amaze the reader and his friends.

PROF. E. MC SQUARED'S CALCULUS PRIMER (PART 2)

Swann & Johnson 1976 103 pp \$2.75

The same delightful and edifying format of the original Original, Fantastic and Satisfying Calculus Primer (Part 1). Prof. EMC² No. 1 got you up to limits; part 2 goes beyond into various difficulties with limits and (ta da!!) derivatives. Yes, with part 2 you now get *real calculus* — even if it is only differential. Maybe they'll keep up so ordinary folk can even learn how to integrate.

GETTING THE MOST OUT OF YOUR ELECTRONIC CALCULATOR

William L. Hunter 1974 204 pp \$4.95

A "how to" book for people who want to use electronic calculators for basic math, homework, unit pricing, grocery shopping, simple interest, income tax preparation, and running the modern kitchen.

MATHEMATICS:

A Human Endeavor

Harold R. Jacobs

WHF 434 1970 529 pp \$8.50

"If I were going to teach mathematics, or learn it, I'd want this book. It's unusually enjoyable as well as big and thorough." —Stewart Brand, in *The Last Whole Earth Catalog*

"A remarkably attractive book. The most resolute of mathematics haters should find it appealing." —Dan E. Christie, Bowdoin College.

PARTIAL CONTENTS: Mathematics—A Universal Language; The Mathematical Way of Thinking; Number Sequences; Functions and Their Graphs; Large Numbers and Logarithms; Mathematical Curves; Some Methods of Counting; The Mathematics of Chance; An Introduction to Statistics; Some Topics in Topology; Some Fundamental Ideas; Answers.

PROF. E. MC SQUARED'S (ORIGINAL FANTASTIC & SATISFYING CALCULUS PRIMER)

Swann & Johnson 1975 111 pp \$2.95

Our original idea was this: if we would find characters for each mathematical concept in differential calculus, and set them all to work, the result would be far more lively and involving than the usual textbook trip. What happened along the way was that the characters acquired more life than we had expected and sometimes seem to charge off in their own directions. So, if they lead you astray, go back and re-read what you have already done. Try the exercises — we have left room to work them out in the book, and the answers are in the back.

PROFESSOR GOOGOL'S MATH PRIMER

Sam Valenza Jr. 1973 144 pp \$4.50

This is a math textbook with a sense of humor — an experiment in the visualization of mathematical ideas through cartooning. Effective and interesting communication of a sometimes unexciting subject. Mad, mad visual stuff makes this great for all you kids, young and old.

COMPUTER METHODS IN MATHEMATICS

R.L. Albrecht, W. Mara 0150 \$8.56

Designed for a one semester course in computer programming following one year of high school algebra, this text teaches students how to write computer programs using a time-sharing system as well as how to use this knowledge to solve mathematical problems encountered in the regular mathematics curriculum. Emphasis is given to the BASIC language but FORTRAN is also presented.

Since the mathematics prerequisites for using the text are minimal, it can also be used to supplement the high school mathematics courses with computer applications. This use of the text can be started about half way through a first course in algebra.

Table of Contents

1. Introduction to Computers and Programming Languages
2. A Simple Computing Machine
3. A More Powerful Machine
4. BASIC, An Algorithmic Language
5. Decision-Making and Looping
6. Functions and Equations
7. Sequences and Series
8. Arrays — Subscripted Variables
9. Time-Sharing FORTRAN
10. FORTRAN Decision-Making and Looping
11. Subprograms

METRICALLY YOURS

Helen Hunter and Paul Wallach

1976 70 pp \$2.95

The metric system is here to stay and it's super simple to use once it becomes familiar. This big format book uses lots of cartoons and simple, clear language to facilitate mastering this most logical system of measurement. Included in each section are plenty of questions and answers for self-testing, as well as one page of flash cards to cut out. *Metrically Yours* is written clearly enough for the elementary student, and it offers everyone, young and old, a quick, concise rundown (or brushup) on metrics.

CALCULATOR CALCULUS

George McCarty 1975 254 pp \$8.95

9

This book is about the calculus. What distinguishes it, however, from other books is that it uses the pocket calculator to illustrate the theory. A computation that requires hours of labor when done by hand with tables is quite inappropriate as an example or exercise in a beginning calculus course. But that same computation can become a delicate illustration of the theory when the student does it in seconds on his calculator.

ADVANCED APPLICATIONS FOR POCKET CALCULATORS

Jack Gilbert 1975 304 pp \$5.95

At last! A book to help you use all those funny looking keys on scientific calculators such as the Hewlett-Packard HP-45 and Texas Instruments SR-51. Includes simple stuff like cosine law solutions and Saturn Maneuver calculations.

PROBABILITY & STATISTICS

STATISTICS

D. J. Koosis 1972 282 pp \$3.95

This book is for people who want to learn statistics. Read this book before you take Stat 1.

PROBABILITY

D. J. Koosis 1973 163 pp \$2.95

This book is for people who want to learn probability. Work your way thru this book before you take Stat 1.

STATISTICS: A GUIDE TO THE UNKNOWN

Tanur, Mosteller, Kruskal, Link, Pieters, Rising H-D 8594 1972 448 pp \$5.95

This book represents the first major published result of the ambitious effort of the Joint Committee on the Curriculum in Statistics and Probability of the American Statistical Association (ASA) and the National Council of Teachers of Mathematics (NCTM) to explore ways to vigorously introduce applied statistics into college and even high school curricula. Forty-four essays by well-known experts explore, in an entirely nontechnical way, important applications of statistics to four major fields: biomedical, social, political and physical science. It is intended as a valuable source book and supplementary material for use by both teachers and students in statistics, the sciences, social sciences and business.



10 COMPUTER MUSIC

ON THE SENSATIONS OF TONE

Herman Helmholtz
1885 600 pp \$6.00

The classic scientific book which links music theory, acoustics, and physiology of the ear — written by one of the world's great universalistic scientists. The physics of sound are studied including superimposition of waves and phase, sympathetic resonances, quality of the tone of different musical instruments based on present harmonics, noises heard at the beginning or end of notes, etc. Combination tones and beats, intervals and chords, scales and tonal systems (Chinese, Greek, Pythagorean, Arabian, Persian, Ecclesiastic, tempered, just, etc.), progression of parts, consonance and dissonance, and esthetics are discussed in detail.

The volume (about 600 pages) is illustrated generously with diagrams, graphs, tables and musical examples. It provides a broad background for reading more modern research papers. I would highly recommend *On the Sensations of Tone* to those who design or program musical instruments as well as to all composers.

ALPHA-NUMERIC MUSIC WITH AMPLITUDE CONTROL

Malcolm T. Wright 1975 23 pp \$2.00

Program the Altair 8800 computer or any 8080 CPU chip for a complete 6 octave music system with tempo and duration control and DAC (digital-to-analog converter) for playback. Far out music! Or far in!

HUMAN SOFTWARE

BODY TIME

Gay Gaer Luce 1973 411 pp \$1.25

An absorbing and fully-detailed treatment of a subject we're all at least vaguely aware of — the physiological, social and emotional rhythms in our lives. While there are enough studies and experiments to boggle the brain, the author retains the proper perspective between detail and readability. Read the book and you cannot help but gain a greater awe, appreciation and respect for the beautiful complexity of the human body — leading to greater care of/for and understanding of your own.

SEEING WITH THE MIND'S EYE:

The History Techniques and Uses of Visualization

Mike Samuels, M.D. and Nancy Samuels
133 pp 1975 \$9.95

The human mind is a slide projector with an infinite number of slides stored in its library, an instant retrieval system and an endlessly cross-referenced subject catalog. Avoided by the standard educational process, the importance of visualization in our lives has yet to be adequately explored. This book plugs in your slide projector and pulls down the screen. Time to look in. A big format book, one-inch thick with plenty of photos and illustrations, eight in full color.

COGNITION AND REALITY

Principles and Implications of Cognitive Psychology

Ulric Neisser

WHF 477 1976 218 pp paper \$11.00

Cognition and Reality presents a systematic, ecologically-oriented approach to the cognitive processes, which are treated as skilled and continuing interactions with the environment. Such topics as perception, attention, memory, speech, and introspection are considered in the light of everyday experience as well as experimental research. Contemporary theories of information processing and information pickup are reviewed and criticized, and a new conceptual scheme is developed that deals not only with the acquisition of information but its effect on the perceiving individual. "Perception," writes Ulric Neisser, "is surely a matter of discovering what the environment is like and adapting to it." This scheme has implications for many traditional problems not encompassed by other theories of cognition, including the perception of meaning, the development of individual identity, and the possibility of predicting or controlling human behavior. Readers need no previous training in psychology to understand this book. **PARTIAL CONTENTS:** Visual Perception as Information Processing; Combining Information in Several Modalities; Information Pickup and Information Storage; Attention and the Problem of Capacity: Selective Listening and Theories of Attention; Selective Looking; Dual Attention as an Acquired Skill; Automatic Pickup? The Limits of Capacity; Imagining and Remembering: Images as Perceptual Anticipations; Manipulating the Image; The Limitations of Prediction and Control; Social Prediction; References; Author Index. Subject Index.

THE PSYCHOLOGY OF CONSCIOUSNESS

Robert E. Ornstein 1972 269 pp \$1.95

What is consciousness? This revolutionary book says that an answer is possible — but only if we consider both reason and intuition. Pushing beyond the purely scientific, Robert Ornstein shows how a synthesis of these two sources of knowledge can bring about "a more complete science of human consciousness with an extended conception of our own capabilities."

THE UNIVERSAL TRAVELER:

A soft-systems guide to creativity, problem-solving and the process of reaching goals

Don Koberg and Jim Bagnall

1974 128 pp \$4.95

A definitive manual presenting a logical systematic approach to the creative problem-solving of everyday life, employing graphic visualization as well as statistical representation. Written in the belief that the same mathematical discipline used in solving complex world problems can be utilized in our everyday lives for the attainment of systematic and creative resolution of everyday problems.

THE CENTER OF THE CYCLONE

An Autobiography of Inner Space

John C. Lilly 1972 237 pp \$1.95

This fascinating story of one man's experiences of inner space. An exploratory autobiography in the seemingly limitless of consciousness.

BIOFEEDBACK AND THE ARTS

David Rosenboom, Ed. 1976 162 pp \$12.95

This book sent me spinning off in new directions. It reports on work done by artists . . . dancers . . . musicians . . . researchers in biofeedback and the arts and neurological information processing related to aesthetic experience.

BIOFEEDBACK: TURNING ON THE POWER OF YOUR MIND

Marvin Karllins and Lewis M. Anderson
1973 190 pp \$1.25

The spirit of adventure in the blossoming biofeedback field is well expressed by this widely read classic. It remains the best full field introduction.

ALPHA BRAIN WAVES

Jodi Lawrence 1972 255 pp \$1.25

This is a description of what the alpha condition is, how it can be controlled and its potential uses in medicine, education and psychiatry.

NEW MIND

NEW MIND, NEW BODY; BIO-FEEDBACK: NEW DIRECTIONS FOR THE MIND

Barbara B. Brown, Ph.D.

1974 523 pp \$2.50

A basic source for the technician, home or otherwise. This is the definitive text on biofeedback, presented simply and clearly, while retaining all the worth of traditional scientific methods.

EYE AND BRAIN: The Psychology of Seeing

R. L. Gregory 1973 253 pp \$2.95

Beautifully illustrated and easily understood, this book is IT for learning how the eye and brain function together. This book sheds new light on looking — what you see isn't necessarily what you get.

BUTTONS & SHIRTS & ETC.

DRAGON SWEAT SHIRTS

Nancy Hertert 1974 \$7.00

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Nancy Hertert 1974 \$4.00

The lovable three-headed dragon is now on bright yellow shirts, in green ink. We have sizes to fit all — S, M, L, XL and children's sizes 8, 14 and 16.

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A green dragon on a yellow background, 2 1/4" in diameter with the PCC dragon smiling into your life and causing great curiosity to the uninitiated.

All of the above are in HP 2000F BASIC[®], and from *What to do After You Hit Return*.

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Computer Music Journal



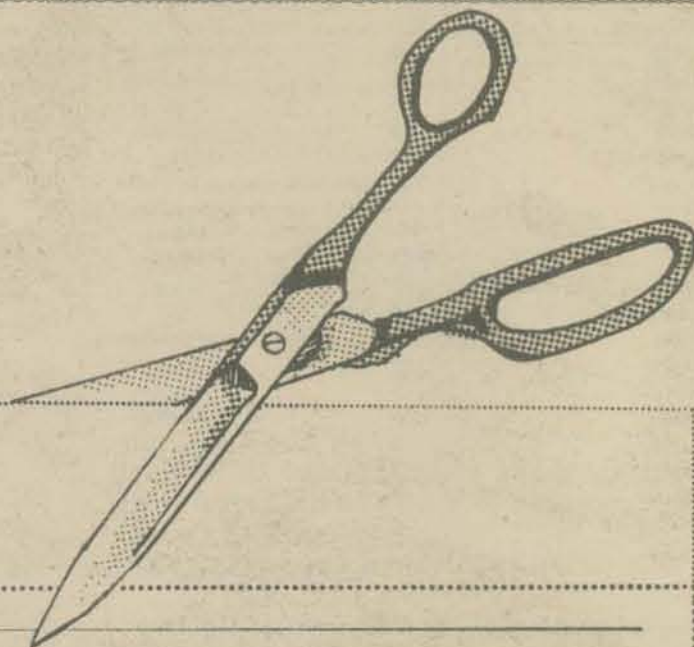
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\$ PRICE: _____

CALIF. RESIDENTS ADD 6% TAX
 POSTAGE/HANDLING \$1. (\$2. ON ORDERS \$10. AND OVER)

☐ SEND ME INFORMATION ON THE CENTER

TOTAL
 ENCLOSED \$ _____