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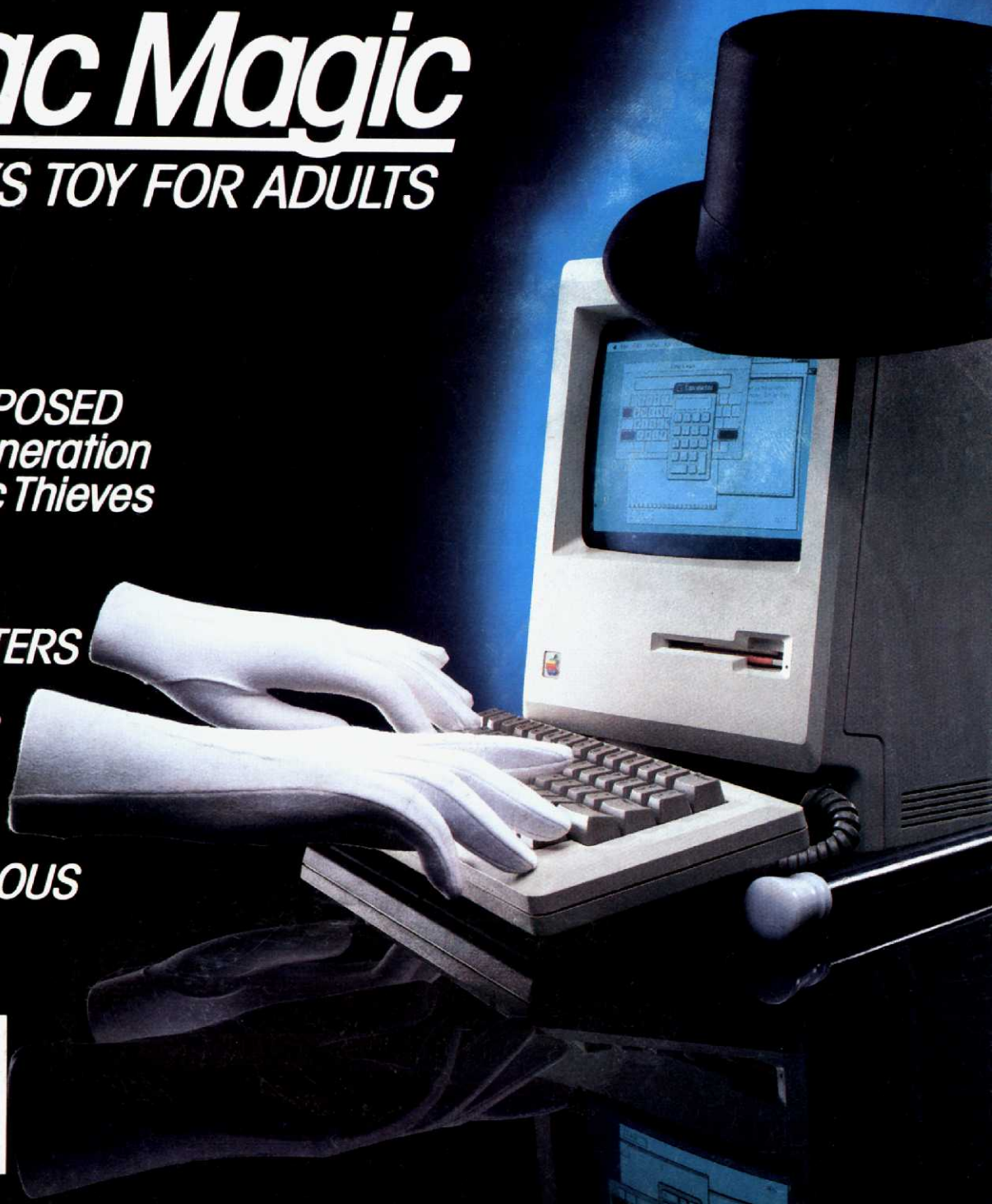
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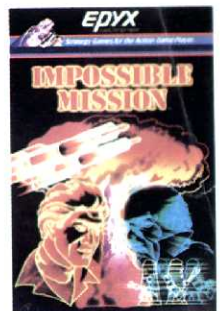
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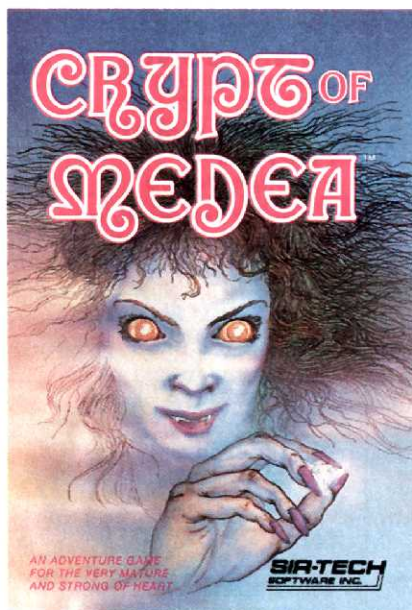
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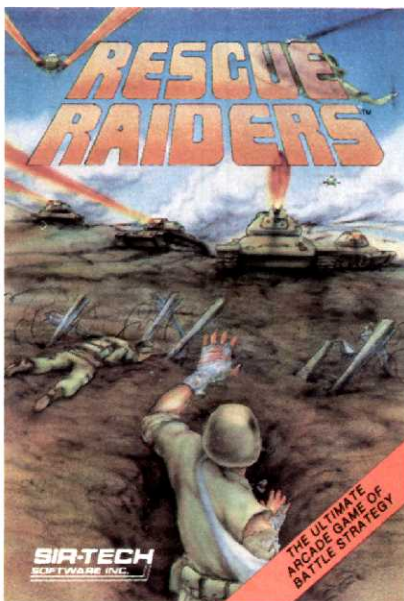
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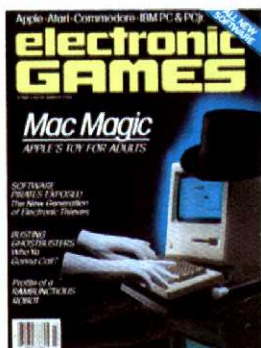
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SIR-TECH SOFTWARE INC.

electronic GAMES

MARCH



About Our Cover
Apple's Macintosh has a magic touch when it comes to entertainment software.

Photo by Vittorio Sartor

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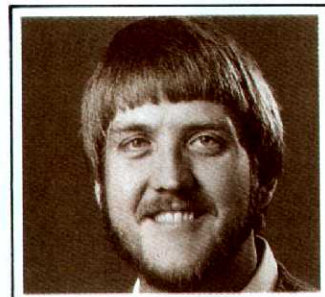
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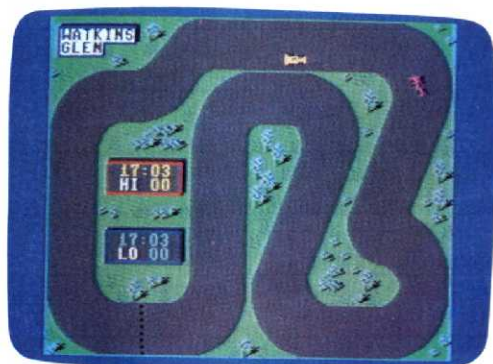
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Don't Settle For Anything Less Than Real Racing.

ON-TRACK™ Computer Model Car Racing



ON-TRACK™ RACING

Actual Commodore 64™ screen—Other versions may vary

Most "racing" games promise more than they deliver. "Scrolling" racing games have to pause or restart the action when you get too far ahead of your opponent. "Dual-screen" racing games compromise competition (by separating you and your opponent) for the sake of fancy graphics.

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ON-TRACK™ RACING

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WE BRING SPORTS ALIVE

On-Line

Starting A New Adventure

By DOUG GARR

This month we'd like you to meet two new editors at Electronic Games magazine. First, welcome Roe Adams, the new national editor. For those readers who are computer adventure game buffs, Roe probably needs no further introduction. For those who aren't, a few words are in order. Adams is probably the nation's number one combination game strategist and entertainment software impresario.

Roe loves to boast, and he's quite charming when he discusses his credentials. And, as Dizzy Dean once said, bragging is all right when you have something to back it up. Here's some back-up. Adams has solved every Apple II series adventure game ever written. He has finished a total of 650 different games, and he has carefully archived all their various maps. He currently holds 31 national titles for solving computer games. Among them: all three **Wizardry** titles, and the prestigious **Time Zone** crown. When Sierra On-Line's Roberta Williams wrote *Time Zone*, the epic took up both sides of six floppy disks. She figured most experienced gamers would take a year to solve it. Roe put a crimp in Williams' prediction. He finished it in one frenzied week. He has also dusted off games like Infocom's **Witness** in an astounding 30 minutes. In his book "Hackers," Steven Levy calls Roe Adams a "jovial, adventure-game fanatic." An understatement, to be sure.

Adams, who, incidentally, is


unrelated to software superstars Doug Adams and Scott Adams (though the three would certainly make a hell of an Adams family) comes to us from Softalk magazine, where he was games editor until its demise. He graduated from Brown University in 1967, but he actually began toying with computers back in junior high school. Few people know this, but he worked on one of the famed Digital Equipment Corp.'s PDP-1 computers (there were no such things as micros then; in fact, the PDP-1 was considered the first minicomputer) programming in binary code on paper tape. At Brown, he was an applied math major, and he worked on the team that developed the very first symbolic logic programming language for computers at the Defense Department. He actually programmed on the second IBM 360 ever built. Roe sheepishly admits his labors allowed the U.S. government the ultimate play toy. "They used program to run their war games. We had one 360 and the CIA had the other," laughs Adams. Happily, he puts his brain to use in more benign areas these days.

Currently, Roe is writing the fourth *Wizardry* scenario, entitled "Return of Werdna," and he's also co-designing **Ultima IV** with Lord British. He's president of Troubadour Enterprises, Inc. which designs computer software programs. Among the works in progress: "Ripley's Believe it or Not," and John Nais-

bitt's "Megatrends." He's also author of an upcoming book with Warner, which will be a primer on — what else? — how to solve adventure games.

The other new staff addition is the author of this column. As the editorial director of Electronic Games, I'll be responsible for making a few changes in the coming months. The software reviews you're accustomed to reading will continue. Thanks to Roe Adams, we'll have our pulse on the industry's newest releases. The magazine itself will be redesigned to accommodate a larger number of feature stories. I hope you find them exciting.

Unlike Roe Adams, I've never actually finished a computer adventure game, but I still love playing them, always believing that to journey hopefully can be almost as enriching as getting to the destination. But I have a broad notion of what I think entertainment software should be, and no doubt some of my tastes will be reflected in these pages in the coming months. (For example, I'm proud to report while I frequently crash while playing **Flight Simulator**, I've done nothing of the kind in the cockpits of real planes).

Meanwhile, you can expect an honest, critical, information-packed issue every month. We're here to please you, and we'd like to hear from you. So when you have a few moments away from the monitor, please continue to write letters to tell us what's on your mind. 

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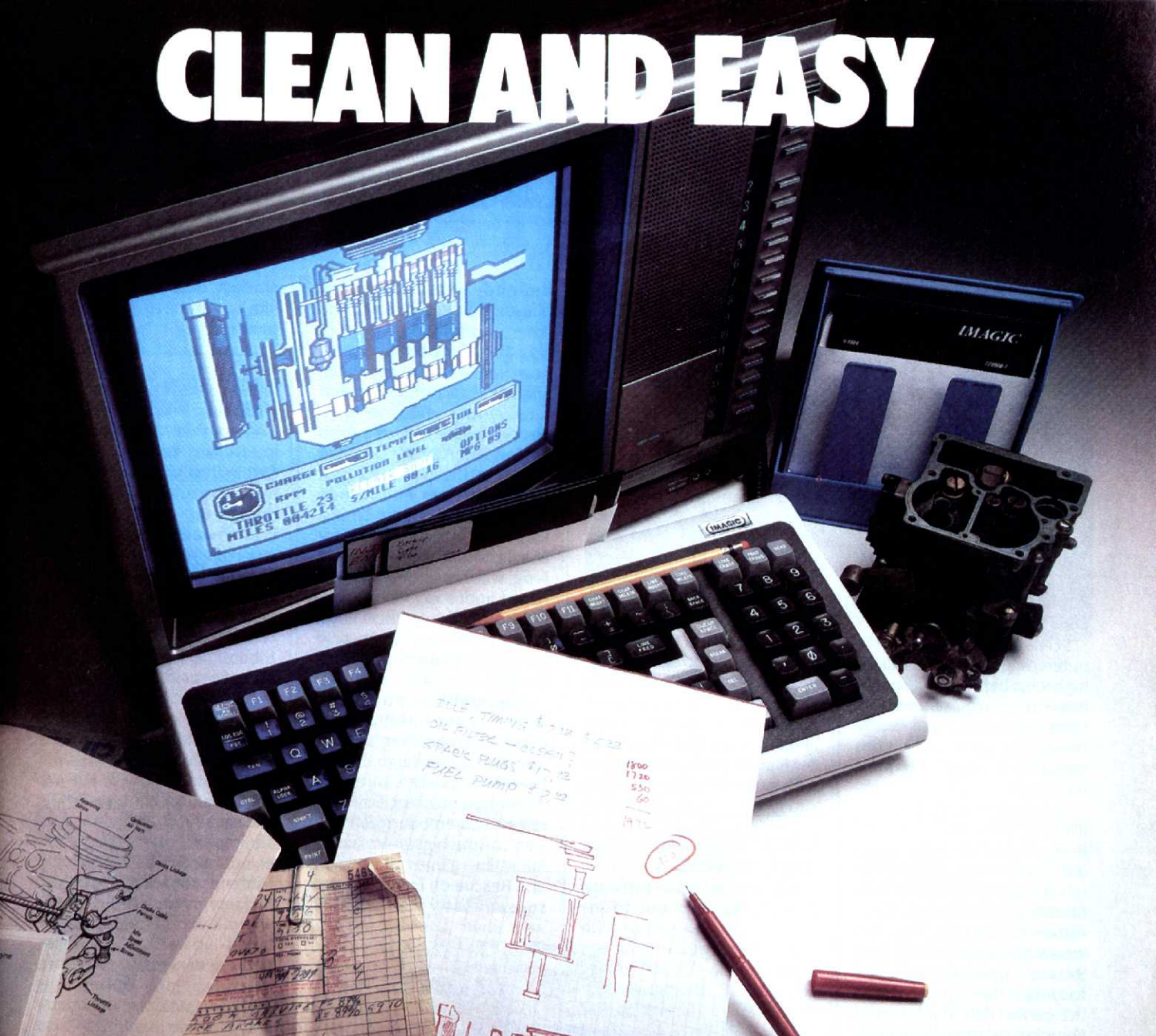
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CLEAN AND EASY



To many, the workings of a car engine are complicated. To most, unfathomable. If this makes you think mechanics are magicians in coveralls, we've got something that will break the spell.

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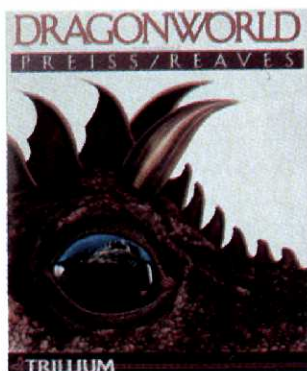
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IMAGIC

HOTLINE



AUTHOR, AUTHOR

Science fiction and computers is a marriage made in high-tech heaven, so it should come as no surprise that software companies are busily converting sci-fi book titles into adventure-style computer games.

Spinnaker unlocked the literary door with the introduction of its Trillium line last year (among the first five releases were versions of Ray Bradbury's "Fahrenheit 451," Arthur C. Clarke's "Rendezvous With Rama" and Michael Reaves' "Dragonworld"). Infocom swiftly responded with the current hit adaptation of Douglas Adams' "Hitchhiker's Guide to the Galaxy",

while Epyx came out with games based on Isaac Asimov's "Robots of Dawn" and Anne McCaffrey's "Dragonriders of Pern".

Epyx is just about to release the McCaffrey sequel, "Moreta: Dragonlady of Pern," and Spinnaker has announced that Robert Heinlein's "Starman Jones" will soon be added to the Trillium library. Finally, C.L. Lewis fans will be glad to hear that Word Inc. has secured the rights to the entire "Chronicles of Narnia" series. The first two games—*Narnia* (based on "The Lion, the Witch and the Wardrobe") and *Dawntreader* (based on "The Voyage of the Dawn Treader") — are already available. Copies of the Narnia books are included with each software package.

SIGNINGS OF THE TIMES

It's common for software firms to contract out to in-

dependent development houses, but it's rare for the latter to receive \$1 million in advance money. Such, however, was the case when Spinnaker and Interactive Picture Systems (IPS) recently announced a 10-program agreement running through 1986. In the past, IPS provided Spinnaker with such titles as *Aerobics* and *Trains*. IPS, which is better known for *Movie Maker* and *Operation: Frog*, will have its next designs issued under Spinnaker's Trillium and Fisher-Price lines. The first will be an innovative learning program, titled *Dance*.

Meanwhile, Epyx and Lucasfilm have quietly joined hands in a marketing and design venture similar to the one that had existed between Atari and Lucasfilm. Epyx will release Commodore 64 versions of the highly-acclaimed Lucasfilm games, *Ballblazer* and *Rescue on Fractalus*, and subsequently market new

products developed by Lucasfilm's computer game division.

NINTENDO'S FINAL SOLUTION

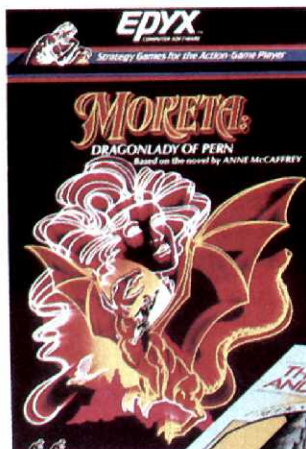
Known for arcade classics like *Donkey Kong* and *Punch-Out* in the U.S., Nintendo has built its reputation in Japan as the leading manufacturer of home videogame systems with its Advanced Video Entertainment System (AVS). Having sold more than 2.5 million AVS units there, Nintendo has decided to distribute the AVS here, perhaps as early as this spring.

Considering that the videogame market in America has virtually disappeared, this could be a miscalculation on Nintendo's part. Described as similar to Atari's never-released 7800 system, and as an improvement over ColecoVision, the AVS features a Nintendo arcade games "hall of fame" series and a "light wand" that is intended for target-type games. The joysticks are wireless and no other cartridges are compatible with the AVS. A keyboard may at some point be sold as an accessory.

MACVISION: A VIEW FROM THE BRIDGE

Take an ordinary video camera, a less-than-ordinary computer called the Macintosh, and an extraordinary new device from Koala Industries called *MacVision*, put them all together and you get an amazing array of digitally-generated images never before seen in the privacy of your home. *MacVision* allows you to "digitize" images simply by interfacing the camera with the computer.

Besides just playing around with this amazing new toy, you'll find *MacVision* has



Edited By STEVE BLOOM

practical uses, too. For instance, a new employee has been hired by your company. Shoot an image of the employee with the camera and save it on the Macintosh. Write the corresponding memo using **MacWrite** and print out the digitized photo on the same sheet as the memo.

MacVision comes with the digitizer interface and software. It currently is being sold for \$399 and is only available for use with the Mac.

MASTERLINE PHONES IN SOFTWARE

Control Video Corp., the company that introduced the ill-fated Gameline videogame download system in 1983, is trying again, this time with **Masterline — Software By Phone**. This subscription service sends C-64 and Apple-compatible software by phone to home computerists. The company promises 20 programs per month, and a monthly magazine to provide users with rules and instructions. A Master Module connects the computer and phone, and a local call accesses the Masterline computer for a download process. Users pay under \$20 per month for the service, which also includes Compu-U-Store shopping privileges.

The first 20 programs for the C-64 include ten games, nine educational programs, and one "enrichment" utility program (**Loan Analyzer/Creative**). The games are **Dancing Feats** (Softsync), **Ft. Apocalypse** (Synapse), **Gridrunner** (HES), **Hard Hat Mack** (Electronic Arts), **Moon-sweeper** (Imagic), **Mychess II** (Datamost), **Plaqueman** (Home Computer), **Round About** (Datamost), **Silicon Warrior** (Epyx) and **Zeppelin** (Synapse). The educational programs feature **Master-**

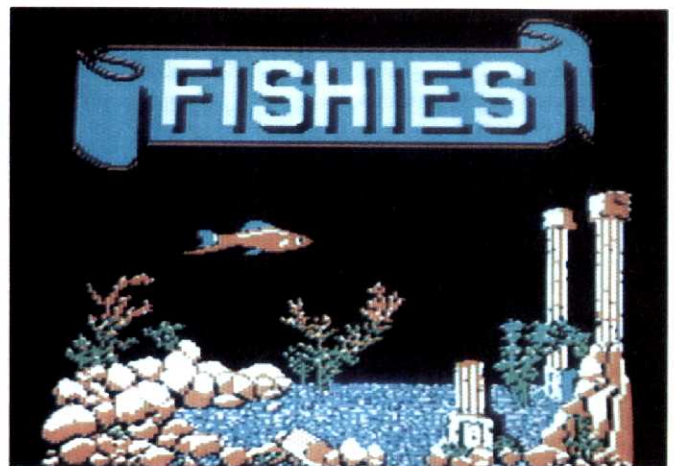
Type (Scarborough), several math tutorials, as well as spelling, alphabet and speech teachers. Of the 20 programs gamers can play 12 as many times as desired, while the other so-called "premiere" programs can be used only five times. The Apple line-up is similar, also offering an educational-entertainment mix of programs.

Gameline, the previous offering from Control Video Corp., failed after a few months in service, during the videogame shakeout. According to CVC spokesmen, purchasers of the Gameline Master Module can still access games through the system, but no new titles have been introduced for almost a year.

The new computer-based service requires no equipment purchase, as the Masterline module is provided.

GRAND PRIZES

Activision and Sierra On-Line are both offering \$1,000 grand prizes for the winners of their promotional contests. To enter the Activision contest, send a program of any length, using the company's Designer's Pencil programming tool, on a disk or cassette to Activision by April 30. Twenty prizes will be awarded, including four grand prizes of \$1000 each, eight \$500 second prizes, and



eight Okidata printers as third prizes.

Sierra's promotion is a bit more unusual. Enter the air show in **Stunt Flyer**, the company's new stunt simulation game, and save your top scores and stunts. Mail your disk to Sierra, where it will be evaluated by professional stunt flyer Al Gehringer. One note of caution: If your plane crashes while performing one of the 20 stunts, this will cause your disk to crash as well. "It's sort of crazy," Sierra's John Williams admits. But it's certainly worth a thousand bucks.

HARPER & ROW BOWS OUT

Harper & Row, after forming a division to publish books and software for home computers eighteen months ago, has exited the business. Brooks Thomas, President and CEO, said the decision was made due to the current glut of such products in the market.

The company had only just begun to ship its first software programs, **Fishes**, a computerized aquarium, **Quiz-Whiz**, an educational trivia-style game, and **The Write Stuff**, a word processing program. Prior to the decision to close the division, H&R announced several other

entertainment programs that were to be introduced in 1985, and current plans call for any completed software now in inventory to be sold through regular distribution channels.

SHOW BUSINESS

"A New Horizon" is the slogan for the upcoming Amusement Showcase International (ASI), the coin-op industry convention that will take place from March 1-3 in Chicago. All the major arcade game manufacturers — including Atari, Bally, Data East, Nintendo, Stern and Taito America — will be present. If you're interested in attending, send the \$10 registration fee to: ASI, 7237 Lake St., River Forest, IL, 60305.

Later in the month, 20,000 software products will be exhibited at Softcon — aka, the International Conference and Trade Fair for Software Merchandisers, Publishers, and Corporate and Institutional Users (phew!) — scheduled for March 31-April 3 in Atlanta. The registration fee is \$30 and should be mailed to: Softcon, c/o Northeast Expositions, 822 Boylston St., Chestnut Hill, MA, 02167. Or call: 617-739-2000.

HOTLINE

GREAT MSX-PECTATIONS

The Japanese are coming! The Japanese are coming!! In fact, they have already arrived and departed after a brief, but effective visit to last month's Consumer Electronics Show in Las Vegas. Twelve of Japan's leading electronics manufacturers, headed by Sony and Panasonic, showed off low-end computers which all featured the much-discussed MSX operating system.

The message was clear: These Japanese firms intend to sell inexpensive computers (\$100-\$200) in the States sometime this year. That means competition for Commodore and Atari, but little challenge to IBM and Apple, who dominate the high-end computer market. Besides the low, low price, each MSX computer boasted superior arcade-style graphics and CPM-software compatibility.

Already lining up to provide MSX software are Activision, Infocom, Konami, Namco, Human Edge and Dilithium Press. And Spectravideo, the Hong Kong-based subsidiary of Bondwell Holding Co., indicated it would also begin marketing an MSX machine here in the near future.

The Japanese firms hinted that MSX computers will soon be integrated into TVs, stereos, home-security systems, and cable boxes. Pioneer, Hitachi, Toshiba, Canon, Yamaha, and Casio were among the companies represented at CES.

NOVEL IDEAS

Call it the "living novel" (that's how Activision has described its two recent products, *Mindshadow* and *The Tracer Solution*), call it "interactive fiction" (aka, Infocom's *Witness*, *Deadline*, *Zork*, etc.) — whatever name you prefer, companies are continuing to rush out new murder mystery and fantasy/role playing games.



CBS' **Felony**, the sequel to **Murder by the Dozen**, contains 12 unsolved crimes, such as kidnapping and burglary. Deadlines must be met and "sleuth ratings" are kept. Another sequel, Sierra/Online's **Romancing the Throne: King's Quest II**, offers voice synthesis with the PCjr version. Also from Sierra is **Black Onyx**, an *Ultima II*-like graphic adventure that is currently number one in Japan.

Meanwhile, the first of seven episodes of **Alternate Reality**, the long-awaited game from Datasoft, is finally being readied for release, called **The City**. As yet untitled is Stu Galley's next game for Infocom. All the company will say is that the creator of *Witness* is working on a product that will kick off "Intrigue," Infocom's newest software category, sometime this spring.

MR. ROGERS LOVES YOU

Well, there goes the neigh-

(C-64, Apple IIe/IIc) lets children create greeting cards electronically (it is also the name of the theme song from 'Mister Rogers' Neighborhood'). While the song plays in the background, kids are shown how to pen messages using graphic symbols, with suggested text. Once a card is finished, an on-screen trolley appears and takes the envelope away.

ESQUIRE HONORS THE HIGH-TECH FIVE

Now Bill Gates, Bill Budge, Mitch Kapor, Steve Jobs and Steve Wozniak have one more thing in common. They were all honored by *Esquire* in the magazine's year-end 1984 Register, which saluted 276 "men and women under 40 who are changing America." That's certainly true of the High-Tech Five. Gates co-founded Microsoft, Budge writes the programs (**Raster Blaster**, **Pinball Construction Set**) that make the whole world play, Kapor single handedly got Lotus Development off the ground, and the Apple Steves... well, you know their stories by now.

THE HI-TECH TOP 20

Hi-Tech Recreations of Carolina Beach, N.C. knows the scores. Every month it releases a list of twenty arcade games, the current high scores on them, who did the high scoring and where. Hi-Tech has solid credentials—Leo Daniels, one of the original arcade whiz kids—and currently the record holder on Firefox (595, 130) — helps run the scoreboard, along with four others.

According to Hi-Tech, a high score is only official when it's recorded at a location that follows the scoreboard's rules — one of which is a four-hour time limit. Official Hi-Tech high scorers receive a T-shirt and



are listed in the Top 20. For instance, the current **Karate Champ** champ is Robert Moore, who totaled 110,300 points on October 20, 1984 at Hi-Tech Recreations in Carolina Beach.

To become an official location or to purchase the Top 20 list (for \$2), call: 800-334-1609.

PUTTING ON THE HINTS

You're hopelessly stuck in a chamber crowded with raunchy reptiles and evil little people who want to do funny things to you. Since this is only a computer game, one solution is to consult the handy "hint guide" that comes with most programs. But you look and look and you still can't find the way out of your dilemma. So you give up.

If you happen to be playing **Indiana Jones in the Lost Kingdom**, Mindscape's clever "clue hotline" should provide all the answers to your gaming problems. Dial the number 312-480-5010, key in the three-digit code for the clue you want to hear (the clue codes are listed in the program's manual), and wait momentarily for a tape-recorded message. There's nothing fancy going on really: A micro on the receiving end responds to the code by searching for the point on the cassette where the particular message is stored. All that matters is that a voice soon tells you what you need to know, so you can get back to matters at hand.

The hotline works best with a touch-tone phone, which doesn't require additional assistance (rotary-phone callers have to speak to an operator). The hotline works round-the-clock, seven days a week. Those with rotaries will have to call between 9am-4pm, CST, weekdays only.

ADAMITES FORM USER GROUP

The Adam Users' Group, an

independent organization of Adam users, is currently offering backup, assistance, programs, tips and other information to help Adamites get more out of their computers. Although completely independent of Coleco, the company did help establish the group and provides help and information to the organization. AUG also helps users form local chapters, and there are already numerous regional clubs around the country under the AUG banner.

The club boasts a public domain library for use of members, and plans to start a Bulletin Board System for users of AdamLink, the Adam Modem. 'AUGment', the group's official newsletter edited by Al Gerson, director of AUG, informs members of new hardware and software for the Adam, provides a forum for letters, prints programs submitted by members, and keeps Adam users informed of things they might miss otherwise, in a congenial, club-like atmosphere.

Annual membership is \$12; for more information write AUG, P.O. Box P, Lynbrook, NY 11563.

BOUND FOR GLORY

Have a budding literary giant in the house? Woodbury Software's **PlayWriter** may be the perfect outlet for a young creative writer. This

unique package allows the aspiring author to complete a book project from start to finish. The finished **PlayWriter** book looks like it came right off the shelf.

PlayWriter comes with a hardcover jacket, eight pages of illustrated stickers and full-page artwork, and specially-cut and formatted paper — in addition to the disk. The two story disks that are available so far — **Tales of Me** and **Adventures in Space** — have word processors built in to the programs. The writer can either follow the programs' storylines by answering the multiple-choice questions or make up his or her own imaginative responses. An edit function enables the writer to change the entire story. Once edited, book production can begin. The package says the programs are for creative writers 7-14, but adults will find them equally enjoyable.

The next two **PlayWriter** disks will be titled **Mystery** and **Castles & Creatures**. The programs are available for the Commodore 64, Apple IIe, and IBM PC/PCjr.

"SURGE"-ICAL PROTECTION

In need of protection from electrical surges? Help is on the way! **KIWI**, a new, low-cost single outlet adaptor that protects personal computers, TVs, and VCRs from harmful AC power surges is available



from Electronic Protection Devices, Inc.

As a single outlet AC surge suppressor, **KIWI** keeps powerline transients from damaging sensitive electronic equipment and disrupting the memory of computers, microwaves and other microprocessor-based appliances. Featuring a rugged plastic case, it plugs into any electrical outlet.

The **KIWI** sells for \$19.95 (suggested retail) and comes with a 5-year warranty.

For more information contact: Electronic Protection Devices, Inc., Edward Rutenberg, Product Manager, 217 Bear Hill Road, Waltham, MA 02254.

COIN-OPING IN CAIRO

The place: Tahrir Square, downtown Cairo. Inside a busy arcade, groups of bare-



HOTLINE

foot boys dressed in caftans carefully eye the bootleg **Pac-Man** eluding the cherry and yellow and pink goblins. They are waiting for someone to drop 10 piastres (12 cents) into a machine. They like to watch skillful players compete rather than indulge in the games themselves.

The arcade interior is dingy. Walking from one end of the arcade to the other you hear numerous offers to "change money" on the black market. And it's not unusual too see herdsmen negotiating day trips to Saqqara by camel with tourists.

The most popular amusements appear to be pinball classics and space-shoots like **Vanguard**, **Zaxxon** and **Asteroids**. These titles might sound outdated, but in Cairo they're the latest craze. **Hollywood-Man** is the name for the bootleg **Pac-Man**. Register the day's high score and you may be invited back to someone's home for a snack of Om Ali (a dessert consisting of cornflakes, coconut and honey). In Tahrir Square, high scorers are treated like royalty.

C-64 GETS KEYBOARD

Music Port, by Tech Sketch, attaches to the C-64 turning the computer into a musical instrument, recorder and synthesizer. The full-size, three-octave keyboard lets players double-track music, use and store an infinite variety of sounds. Not an overlay, the keyboard plugs into the user port, and uses software to access eight octaves, while generating three tones simultaneously. Players can record music at one speed, then play it back at another. Menu driven, the Music Port has preset tones including piano, organ, harpsichord, strings, flute, clarinet, brass, bells, and a full range of synthesized sounds. Said to make full use of the Commodore's SID chip, widely considered the best sound chip in the home com-

puter field, the Music Port sells for \$149.

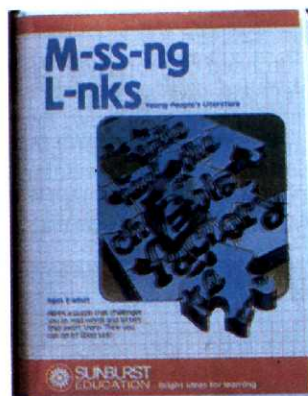
SIRIUS TROUBLE

Sirius Software, which filed Chapter 11 (bankruptcy) proceedings in 1984, has shipped its entire software inventory to Campbell Communications, Peterborough, NH. The programs, valued at over \$4 million, will be marketed by Campbell, a well-known vendor of discount software.

Among the well-known programs from Sirius are such classics as **Sneakers**, **Blade of Blackpool**, and **Buzzard Bait**.

THE PARENTS' CHOICE, TOO

Already awarded a certificate of merit for design by Electronic Games (see our January 1985 issue), **M-ss-ng L-nks** was recently cited for excellence by Parents' Choice magazine along with 21 other educational programs. Designed by Dr. Carol Chomsky, Harvard Graduate School of Education lecturer, and Dr. Judah Schwartz, an M.I.T. professor, **M-ss-ng L-nks** asks children to fill in the blanks of



selected passages taken from young people's literature such as F.H. Burnett's "The Secret Garden" and C.S. Lewis' "The Lion, the Witch and the Wardrobe."

Sunburst Communications, which markets **M-ss-ng L-nks**, also received a Parents' Choice award for the program, **Challenge Math**.

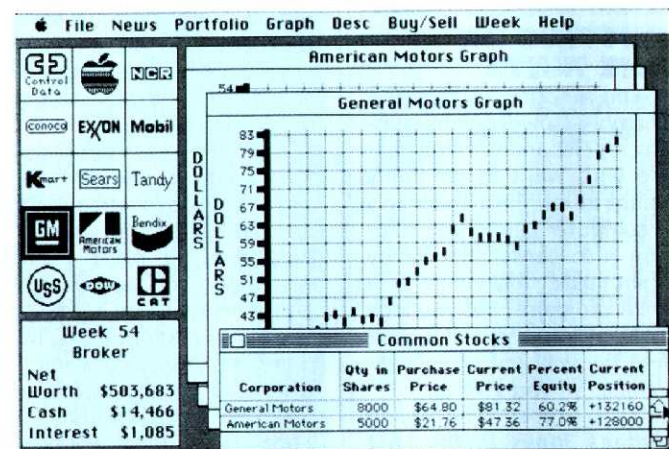
Some of the other programs honored were CBS' **Success With Math**, Scarbrough's **Picturewriter**, and DesignWare's **Math Maze**.

RAGING BULLS

Members of Seattle's business, financial, and high-tech communities waged a battle

the computer community deal with the concept of a keyboard.

Dubbed the "Kids Computer Keyboard", Muppet Learning Keys is actually a secondary keyboard with input codes simplified through colorful, easy-to-read mylar overlays. Available for both the Apple and Commodore



for bragging rights last month when they organized a **Millionaire** competition — and it was all for a good cause. Computerland of Western Washington, Blue Chip Software (the company responsible for the best-selling stock-market simulation program), and Apple Computers were among the groups which donated \$1,000 (the entry fee) to Vision Services, the United Way agency.

The high scorers walked off with Apple and Macintosh computers as well as the claim to being the top Millionaire players in town. The names of the winners and the amount of money collected will appear in this section next month.

HENSON, KOALA KEY COMPUTERS TO KIDS

Henson Associates, creators of the Muppets, and Koala Technologies have joined forces to produce the Muppet Learning Keys, a low-cost peripheral designed to help very young members of

64 systems, the keyboard works like a set of computer training wheels, plugging and unplugging easily so as not to interfere with more experienced users.

With a suggested retail price of \$79.95, the Muppet Learning Keys keyboard is scheduled for a summer arrival on store shelves.

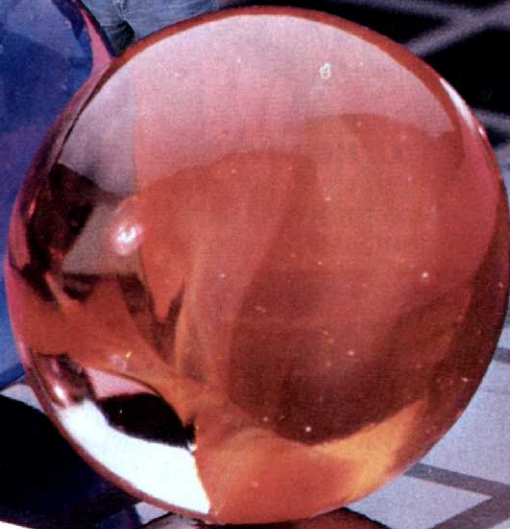
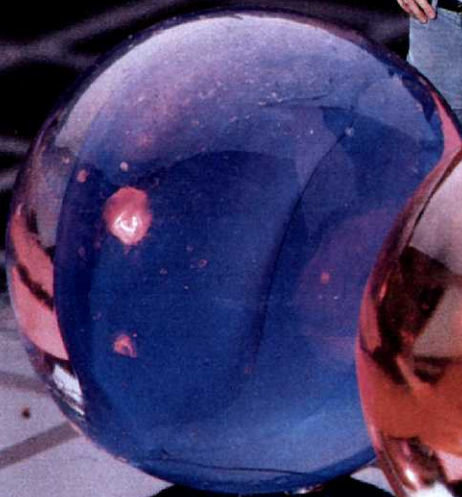
TRIVIA FEVER

PSI, producer of **Trivia Fever**, has announced the introduction of two new releases in the series — **Trivia Fever Volume 2** and **Trivia Fever Super Sports**. **TF Vol. 2** is designed for use with the original game, while the sports edition is a totally new entry offering thousands of questions in seven categories, including baseball, basketball, football, amateur sports, golf, tennis, racing and more.

TF Vol. 2 is available for the C-64, IBM PC, PCjr, Apple II series, Macintosh and Radio Shack Color Computer at a suggested retail price of \$24.95. **Super Sports Edition** retails for \$29.95.

**"I designed a game I'd want to play
so you'd want to play it."**

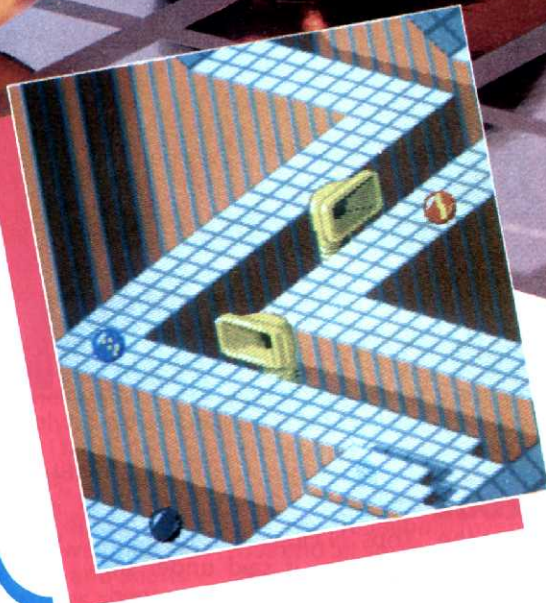
—Mark Cerny, designer/programmer



—Mark is an expert game player turned expert game designer. At 16 he was the first to "wrap" Defender at 1,000,000 points. He's never stopped getting high scores on video games or at the University of California at Berkeley. Today at 20 (with help from his team partner, Bob Flanagan), Mark has applied his "whiz kid" player experience and talent as a programmer to designing a coin video so big it'll blow you away. "Like you, I've played a zillion ho-hum videos. So when I got the chance at Atari Games I designed a game that I could get into... that would really make it for me. Its craziness turned out to be great fun for everybody—beginners or experts! It's sports competition, kinet-

ics and strategy... a simultaneous 2-player marble race (you against an opponent or the computer) over fantastic 3-D terrains to find out who can Trak-Ball their marble over the Goal Line first.

Sounds easy, right? Wrong. You have to make sure your opponent doesn't trash you, or the "steelie" doesn't get you back there). Then there are all kinds of weirded-out creatures and objects to bust you—all the way through the six game lev- els. Ever get eaten by a hun- gry marble muncher? Vac- uumed by a giant Hoover?" Experience the spectacular animation, special stereo mu- sic track, and the super-fast action. Marble Madness. It's guaranteed to make you crazy!



MARBLE MADNESS™

NEW FROM ATARI COIN GAMES.

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Reader Replay

HELICOPTER HUNTER

Is it possible on the **Spy Hunter** coin-op for the **Spy Hunter** car to turn into a helicopter?

Tom Starnes
Carson City, NV

*Ed: Sorry, no helicopter, but you can turn the car into a boat. As you know, you shoot at helicopters in **Spy Hunter**. But maybe you'll get your wish — **Future Spy**, the sequel, should be in the arcades soon. Check it out for your car-to-'copter conversion.*

THE SORCERER'S APPRENTICE

When I play Infocom's **Sorcerer**, around the 100th move I start getting tired. Before I know it, I fall asleep and end up in the "Chamber of Living Death." How do I keep from doing this? Is there any way to get out of the chamber? Also, how do you get past the "Warning Nymph" that never lets you go south from the lobby?

Jim Schuler
Irvine, CA

Ed: First of all, get out of the Guild House by finding the spell that will let you bypass the nymph. Be sure to look downstairs — and don't forget to use your Infotater. Once you do all that, you'll sleep more peacefully. By the way, hint books for all of Infocom's games can be purchased for \$7.95 each by calling toll-free 1-800-262-6868.

KOOL MAN

In the "Tops 'N Flops of 1984" article (January issue) it said under the heading, "The Whatever-Happened-to? Medal" that **Mr. Kool-Aid** never came out as a game. News to the contrary: **Kool-Aid Man** (aka, **Mr. Kool-Aid**) came out for both the 2600 and Intellivision.

I have collected almost all of the games for the 2600 (Atari VCS). I even have **Tooth Protectors** by Johnson & Johnson and **Chase the Chuckwagon** by Ralston-Purina. If you have any

questions about VCS games, don't hesitate to ask.

Douglas L. Smith
Fairfax, VA

Ed: You asked for it. What are the names of the nine original carts made for the VCS? As for Mr. Kool-Aid or whatever his name is now, we stand corrected.

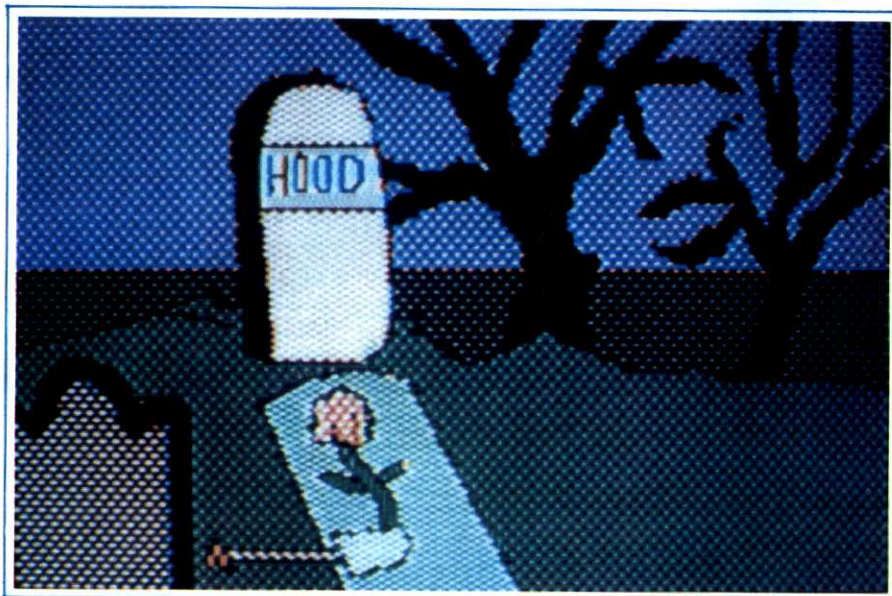
TAKE ME TO THE RIVER

I own a Commodore 64 and have recently bought **Death in the Caribbean**. I've yet to figure out how

cross the river, ask Microfun for the answers. Write: Microlab, Inc., 2699 Skokie Valley Rd., Highland Park, IL 60035.

PICKY, PICKY

I like everything about EG except for one thing: "EG Readers Pick Their Favorite Games." What I can't understand is why you have such old games on it — like **Buck Rogers in the 21st Century** and **Q*bert** — that nobody plays anymore. And **Dragon's Lair**! Let's face it folks — you don't see people rushing out to play **Dragon's**



DEATH IN THE CARIBBEAN (MICROFUN)

cross the river on the west side of the island. I have tried every command I can think of, but none seem to work. Can you please tell me how to cross the river?

Jim Castelano
Waterbury, CT

Ed: OK, just this once. Before you even think of crossing the river, first locate the magical ring. Now, find the lifebelt and put it on, go north just above the cannon, and use the command: CROSS RIVER. Remember, you can only give two-word commands. If you're still having trouble after you

Lair any longer. These games are has-beens. Could you please clear this up for me?

Jason Davis
Concord, CA

Ed: We've decided to deal with this problem as directly as possible. We're eliminating the Reader Poll altogether. Tell us if you miss it.

We're always interested in what our readers have to say, even though every letter can't make it to print. So please keep writing whenever you have questions, comments, criticism, or a pat on the back.

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1. Introducing New Improved MasterType™ that makes it even more fun to be an expert typist even faster.

We've added on-screen finger positioning and sentence practice. Now the #1 best-selling educational program in America produces all the results of a traditional touch typing course, and it's fun, fast-paced and entertaining. Available for: Apple II family, Macintosh, Commodore 64, Atari, IBM PC/PCjr.

2. Introducing MasterType's Classic Software Library. These three new MasterType programs — plus New Improved MasterType — are the basics. You can't begin to get the most from your home computer without them.

MasterType's™ Writing Wizard.™ This easy-to-use, full-function word processor and "writing teaching tool" helps the whole family write more effectively. Dual win-

dows, a database and simple correction commands make writing efficiently a breeze. Color highlighting and multiple typefaces challenge kids to write creatively. Available for: Apple IIc/IIe (128K), Commodore 64, IBM PC/PCjr.

MasterType's™ Figures + Formulas.™ A "computing encyclopedia" of weights and measures for kids and adults. Converts currencies, adapts recipes, translates metric measures to American standards and more. Available

for: Apple II family, Commodore 64.

MasterType's™ Filer. It's the only list manager and database for kids and adults that employs functional color and sound. This powerful program organizes, sorts and prints addresses, insurance records, household inventories and all sorts of lists. Available for: Apple II family, Atari, Commodore 64, IBM PC/PCjr.

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Notes From The 16-Bit Underground

by MARC BERMAN

Let's suppose you're seriously considering upgrading from a videogame machine or your older micro to a more powerful system. If you plan to run a lot of entertainment and game software, chances are the Macintosh won't be the first machine that leaps to mind — or even the third or fourth. But think again; you may be missing a real good bet. Apple's positioning of the Mac primarily as a business machine has obscured its great entertainment value. And while it's true that the Mac is a powerful "corporate" computer, it's equally true, if not so immediately obvious, that it has incredible gaming possibilities — as a growing underground of users and programmers can attest.

The best of the new Macintosh software takes advantage of the machine's unique features — such as the pull-down menus and windows written into ROM. The Mac also offers speed, high-res graphics and surprising sound capabilities. (You might expect only beeps from an Apple, but the Mac plays a great concerto.) Translations of programs originally designed for other systems have almost all been improved one way or another. Blue Chip Software's popular financial simulations, for example, come complete with high-res corporate logos and other graphic enhancements in their Mac versions. And the inveterate Infocom adventurer will soon get spoiled by the Mac's fast access and the fact that the game can be saved directly onto the program disk. Up'til now, The Mac may have successfully masqueraded as a grey flannel computer, but in its heart of hearts it leads a secret life as an entertainment machine.

Just how rich a secret life is known to only a select few, but this group is bound to grow as more and more software is developed to exploit the Mac's special virtues.

ARTS AND SCIENCE

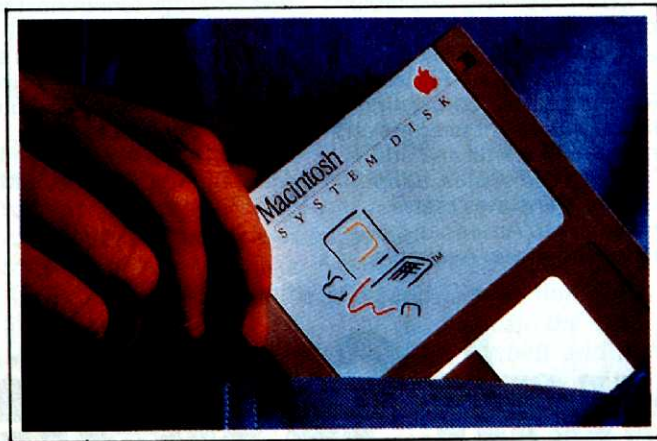
"If we had had to create this program from scratch," says Scott Ewen of Ann Arbor Softworks, creator of **Animation Toolkit No. 1**. "We would have had to duplicate Apple's 300 man-years of work in developing the Mac first." *Animation Toolkit* was still a long time in development. Ewen adds, "You approach the Mac different than other machines. You don't just hack away in assembler [a programming language]; there's a learning curve involved."

The first original games for the Mac are impressive, but Ewen and other developers like Bill Budge and Bill Atkinson agree that the best is yet to come.

Some of the games are tagged educational. Or they've been given new generic names like "entertainment software," or "creativity tool" or "mind relaxer." (It's true Apple management doesn't want the Mac to get a reputation as a game machine, but Apple didn't coin these euphemisms — software makers did.) These new titles are right on target. The Mac is redefining what computer games can be. And categories are merging — even between such strange bedfellows as financial planning and games.

The designers claim that many of the new programs couldn't have been done on any other machine. Marc Canter, a former Bally wizard, created **MusicWorks**, an astonishing composing program for the Macintosh. He says, "Our first premise was that the 68,000 CPU and hi-res graphics could let us pull off things you couldn't do on an IBM machine. And the Mac has greater sound capability than any other machine out there."

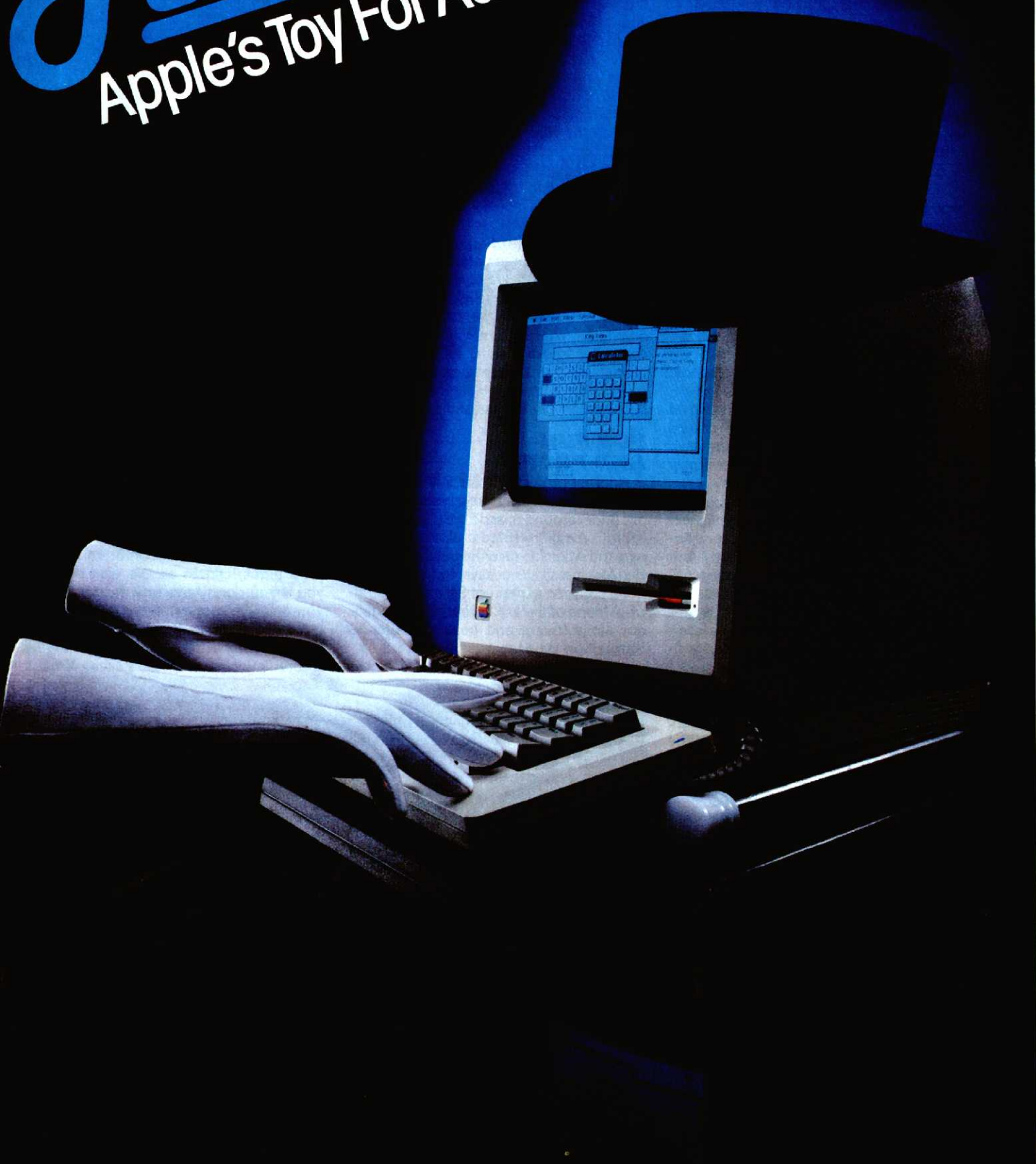
Canter recognized so many possibilities for composing music on the Mac, that he had to rein himself in on his first version of *MusicWorks*. The program represents music on the screen with conventional staves, and a matrix grid. Musical notes and symbols are moved around with the mouse. A four-piece orchestra can play your song with the Mac's four sound tracks. There are eight instruments to choose from (including kazoo and chimes) and a dozen variations, such as percussive,



All Mac software runs on a small — 3.5" — disk.

Mac Magic:

Apple's Toy For Adults



Mac Magic:

tremolo and vibrato. Samples of everything from Bach to be-bop are included too. You can also print out the music in staff notation.

Canter explains that, unlike Commodore, Atari and other machines, the Mac isn't hardwired with a synthesizer chip. He says, "The Mac converts numbers to voltage. It has a digital to analog converter. Nobody's ever tried to do it that way before, because it takes so much CPU time — other machines were too slow.

"Computer software has been so complex, it removed you from the process of making music," adds Canter, "Real time is the key here. And the Mac lets you cut through all the baloney about commands like, 'access' or 'run'." New *MusicWorks* programs being developed will allow the user to play triplets, change the key signature and print out lyrics with the music.

"You'll soon be able to create your own rock videos," says Canter. His company, MacroMind has been working on an animation program and a combined animation-music program, called **SoundVision**. With *SoundVision*, Mac owners can compose music which will play in sync with full-screen animation.

As any Mac owner can tell you, the Mac's graphic capabilities make it a excellent choice for animation programs. **Animation Toolkit No. 3** from Ann Arbor Softworks will probably have voice options, but *Toolkit No. 1*, the first animation program for Mac, is mute. Even so, it's leaps and bounds ahead of **Moviemaker**. *Toolkit No. 1* provides an animation window where your figures continually move, a scrolling window of each frame in the sequence, and a blow-up of the frame you are working on. Company spokesman, Scott Ewen explains why the Mac is the only machine that can support such a program. "Because of the speed of processing, you can have one thing going on in one window and something else in another. And you can resize windows because of the built-in Mac software." **Animation Toolkit No. 2** will be out soon. It will allow the user to create background scenes with **MacPaint**, and animate characters across them.

Another outstanding art program for this machine is Hayden's **Da Vinci**, which lets the user create almost unbelievably detailed drawings of very high quality.

When you're talking graphics software for the Mac, all roads lead to Bill Atkinson, author of *MacPaint* (three years in the making). Atkinson's latest project is **MacVision**. With *MacVision*, you can take

any image from your TV, videocassette recorder or video camera, and display it on the Mac. The image can be incorporated into a **MacWrite** document, printed, or even animated. The \$300 package includes a cable and a box that adapts the video source, and software that adds *MacVision* to the Mac desk accessories.

"You couldn't do something like *MacVision* on the IBM-PC or Apple II or other computers, because you wouldn't be able to insert the pictures in the word processor and you wouldn't have the graphics and shades of gray," notes Atkinson.

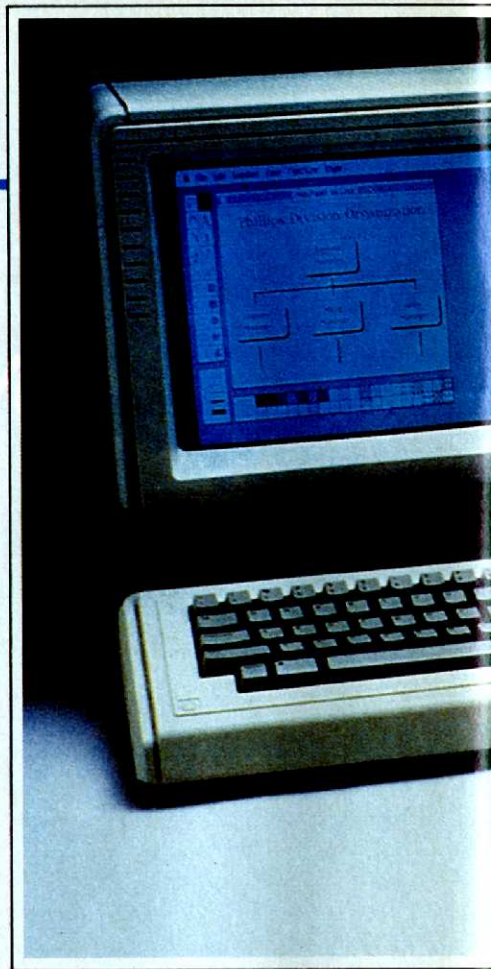
Of the early Mac software, Atkinson was impressed with **Sargon III** which he says began to change notions of a computer game could do. He says, "I have to set *Sargon III* on the easy level. The challenge used to be seeing if the computer could beat you. The challenge now is for the computer to teach you, by leading you, giving you hints, letting you take back moves. The Mac is blurring the distinction between entertainment and education."

FOR FUN AND PROFIT

Another project of Atkinson's will probably never reach the stores, but it's become an underground classic. It's called **Life**. John Conway invented it almost 15 years ago and Atkinson recently put it on disk for the Macintosh. You have to know Bill to get a copy, or a friend of Bill's, or a friend-of-a-friend of Bill's. It's what he calls public domain software and he encourages its distribution via Mac users.

Life is a simulation of a world of cell automata. Each cell looks in eight directions. There are only two rules: If a cell has less than two or more than three cells next to it, it dies. If there's an empty space that has three neighbors, a new cell gets born. Atkinson calls it a "mathematical diversion." He says, "You can explore different configurations and get global effects from a simple local rule."

If cell life is too abstract for you, try corporate life. Now there's a business simulation which was designed specifically with the Mac in mind. It's called **Make Millions** by Tom Snyder Productions for Scarborough. *Make Millions* sets you up behind the desk in a 3-D office. The resources at your disposal are some liquid assets, a newspaper, a telephone (and various brokers and consultants you can call), and a Macintosh. The Mac on your desk provides you with a spreadsheet and a list of your accounts. When you gain a controlling interest in one of five companies,



you can go inside the facility and manage it. As the instructions say, "it's a model of how managers, companies, stock markets, and economies operate. Laid over this core is a model of modern corporate life." In plain terms, certain people won't talk to you if you don't have any money. And if you do have money, everybody wants a piece of the action. If you don't water the plant in your office, it will die (a largely ignored principle of corporate life). What's innovative about *Make Millions* is that it combines a complex simulation with 3-D graphic representations that you control.

There are many excellent financial simulations for the Mac, including translations. With **Squire**, for instance, you can create a financial plan for your retirement — or set the goal of retiring as a millionaire at 35, and play it out as a game. The program is from Blue Chip Software, the same folks who make **Millionaire**.

Financial simulations and programs for the arts are by no means the only types of software being developed for the Mac. Even as you read this, more innovative Mac-specific games are on the way. Bill Budge, author of **Pinball Construction Set** and **Raster Blaster**, is only one of the heavyweights now focusing his attention on Mac software.

Budge is working on a Mac version of *Pinball Construction Set* and says he is thinking about creating a 3-D space flight



Apple's Macintosh:
Its unique
features are
exciting
designers and
users alike.

simulator for the Mac. "*Pinball Construction* was state-of-the-art on the Apple II, but it'll be just another program on the Mac," he says. The major difference between the Apple II and Mac versions is the use of the mouse, which Budge says is much better pointing device for his program (and many other games), than a keyboard or joystick.

"With *Missile Command*, it was a chal-

lenge to line up the crosshairs with the trackball, but with a mouse, it's as easy as squashing ants," he says.

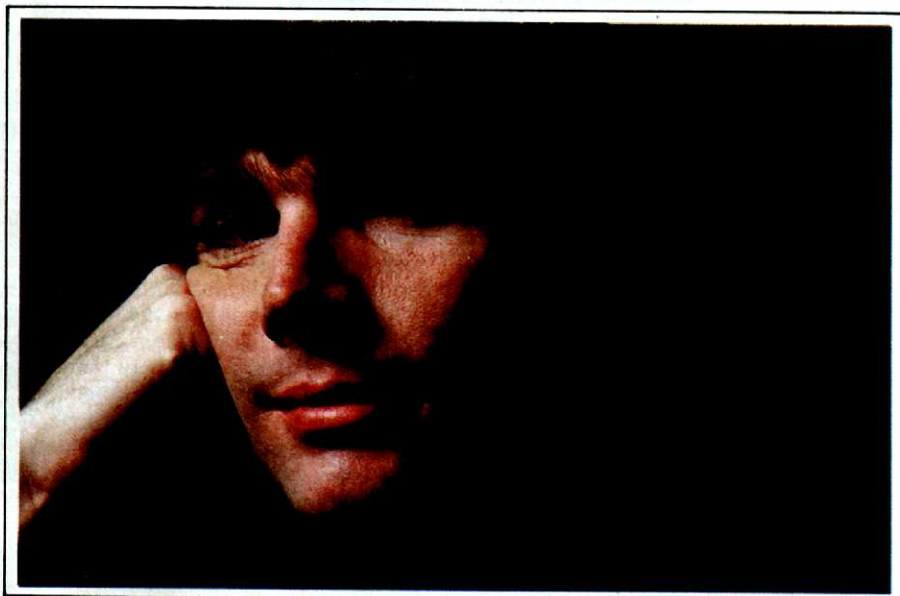
"The graphics of the Mac have been pretty much unexplored," asserts Budge, "*Quick Draw* is perceived as advanced, but it's really general purpose." To help him design graphic game elements, Budge has written his own program which lets the 16-bit Mac processor show off its speed.

He says, "With *MacPaint*, the image may appear in a third of a second, but when you're writing a game, you need it in a thousandth of a second. People know the Mac is fast, but they don't realize how fast.

Another space simulation is in the works from MacroMind. Says Canter, "It's a combination action/adventure. You can actually use the controls on your space ship's control panel. And there are dials to help you translate what the aliens say to you." The ship will also feature a robot arm. Canter notes that one thing that sets the game apart from other space games is that the Mac allows him to represent so much data visually. He can design a complicated game that is not hard to play.

MacroMind is also developing *BodyShop* for Hayden Software. It's a collection of human bodies and spare parts in four different scale sizes. *BodyShop* will accompany MacroMind's animation program, and will work with Hayden's *Da Vinci* series of architectural and landscaping software. There's a program out now from The Reference Company called *HumanForms* that offers body parts for assembly a la Mr. Potatohead, which the company says is designed for choreographers, medical illustrators and other professionals, *HumanForms* people are all one scale size.

If most of these programs seem esoteric compared to what's available for other computers, it's partly because action-type



Software designer Bill Budge: 3-D space simulation for the Mac?

games reveal the Mac's biggest shortcomings as a game machine. Says Budge, "Lack of color is a drawback where arcade games are concerned. You can buy a \$50 computer that plays arcade games better. But Mac games will be different. Point of view will be important, because you can generate a 3-D view better." (Electronic Arts says that because many EA games depend on color, converting them for the Mac has been a problem.)

Another shortcoming that even Mac owners may not be aware of is the absence of built-in scrolling routines. Ewen complains that the routines would make designers' work easier. On the other hand, he, too, applauds the built-in assembly routines for creating 3-D images. "Games that would have to be limited to two dimensions on other computers can be easily done in 3-D on the Mac without looking klugey," he says. Perhaps non-kluginess was a goal of the Macintosh team.

These foibles may be annoying, but they're relatively minor, especially in light of the Mac's supremacy in other areas. One revolutionary development in Mac gaming is the advent of **Appletalk**, a cable accessory that links several Macs together so groups of Mac-heads can play the same game at the same time. The groundwork for **Appletalk** is built into every Mac and Lisa. Atkinson suggests that a game, **Maze Wars**, may be a freebie piece of software distributed with **Appletalk**. What's unique about **Maze Wars** according to Atkinson is, "You won't know if you are playing against other people on the network or against the computer." **Maze Wars** will be a 3-D, first-person representation of a maze. The player will compete with other Mac users to gather treasures and rescue captives. With programs like this, who's going to quibble over color?

Another innovative game has been floating around the backrooms of Apple for years. Called **Alice**, the game was designed by Apple programmer, Steve Capps on a Lisa. Inspired by 'through the Looking Glass', **Alice** (in Macland) is being chased by chesspieces on a chessboard. To save **Alice**, you move her and anticipate the moves of the chess pieces. **Alice** kept the Mac team amused while Apple execs concentrated their official software efforts on more serious programs.

(A similar concept is used in **Pensate** one of the more interesting conversions, from Penguin. In **Pensate**, you must advance across a chessboard while avoiding frisky opponents who move in predetermined patterns.)

It's not that Apple wanted to suppress **Alice**. Says a Macintosh official at Apple, "We know the Mac is a special machine for games. But we want to be careful — we don't want the Mac perceived as a game

computer. It's designed for the business professional or knowledge worker."

Now, with serious software galore, Apple has finally released **Alice**.

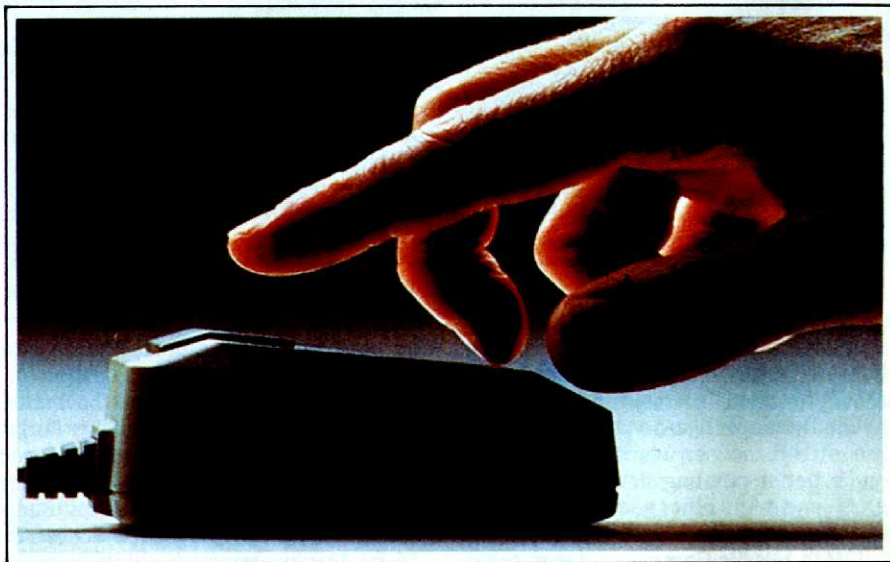
PICKING UP THE PIECES

Two other programs are available exclusively for the Mac — **MasterPieces** from Hayden, and **MacMatch** from Axlon. Neither program could have succeeded on another computer because of their emphasis on detailed graphics and mouse maneuverability. Both are modestly entertaining. **MasterPieces** is a jigsaw puzzle program. You can create your own puzzles for **MasterPieces** with **MacPaint**, or you can use the puzzles provided, but you'll probably get tired of looking at bit-mapped Boy George pretty fast.

MacMatch is from the company which also makes **Art Portfolio** and **Card**

Frogger. And he's ready to placate the die-hards. Budge says he could draw a joystick on the screen, which could be dragged by the mouse. ('Dragged' is a Mac-term for moving on-screen objects around. Movement with the mouse is so smooth, however, that 'floated' would be a more accurate word). The exciting and unexplored potential for controls, says Budge is in graphically simulating a steering wheel or flight controls which can be operated with a mouse.

Another capability of the Mac which Budge says is just beginning to be explored, is the four-voice sound system. He expects designers to use new wave forms to create a larger repertoire of instruments and voices. Canter agrees, saying that he expects to find someone has uploaded a guitar or violin for **MusicWorks** onto CompuServe one day soon.



The Macintosh mouse: "a superior pointing device."

Shop for the Mac. **Macmatch** is the old TV Concentration game — without Hugh Downs — in which you matched pairs (like Jobs and Wozniak) on a big board. When you matched them correctly, a piece of a puzzle was revealed.

Axlon will soon release **Mousetracks** about which company spokesman, Fred Heller says, "It's a whole new level of graphics. It's more like controlling a cartoon." He says the game was designed by former Atari arcade game designers.

Heller says that because Macs come with standard equipment, it's easier to design software for them. "With other computers, you don't know if they've got a monochrome or color monitor, or if they have a mouse or a joystick or paddle controller or only a keyboard."

Though Bill Budge calls the joystick "an inferior pointing device," he admits it might be better for games like **PacMan** or

In fact, CompuServe and other data services are becoming trading posts for homemade Mac games. Todd Ewalt, special projects director of Club Mac says the Mac User groups exchange Mac games via CompuServe and through the mail. "So far we've found a few adaptations of videogames, but things are happening so fast with the Mac, I expect to see more sophisticated stuff soon."

Atkinson sums up the why the Mac has inspired home hackers and software developers, "The accessibility of the Macintosh has shaken them up and given them a fresh awareness of what can be done. And the tools you can build on top of are very high level. You have to write very little assembly to get great graphics out of it." The first wave of original games, bears him out. And though 1984 was 1984, in spite of the introduction of the Macintosh, Mac software may be why 1985 is 2010. ☺

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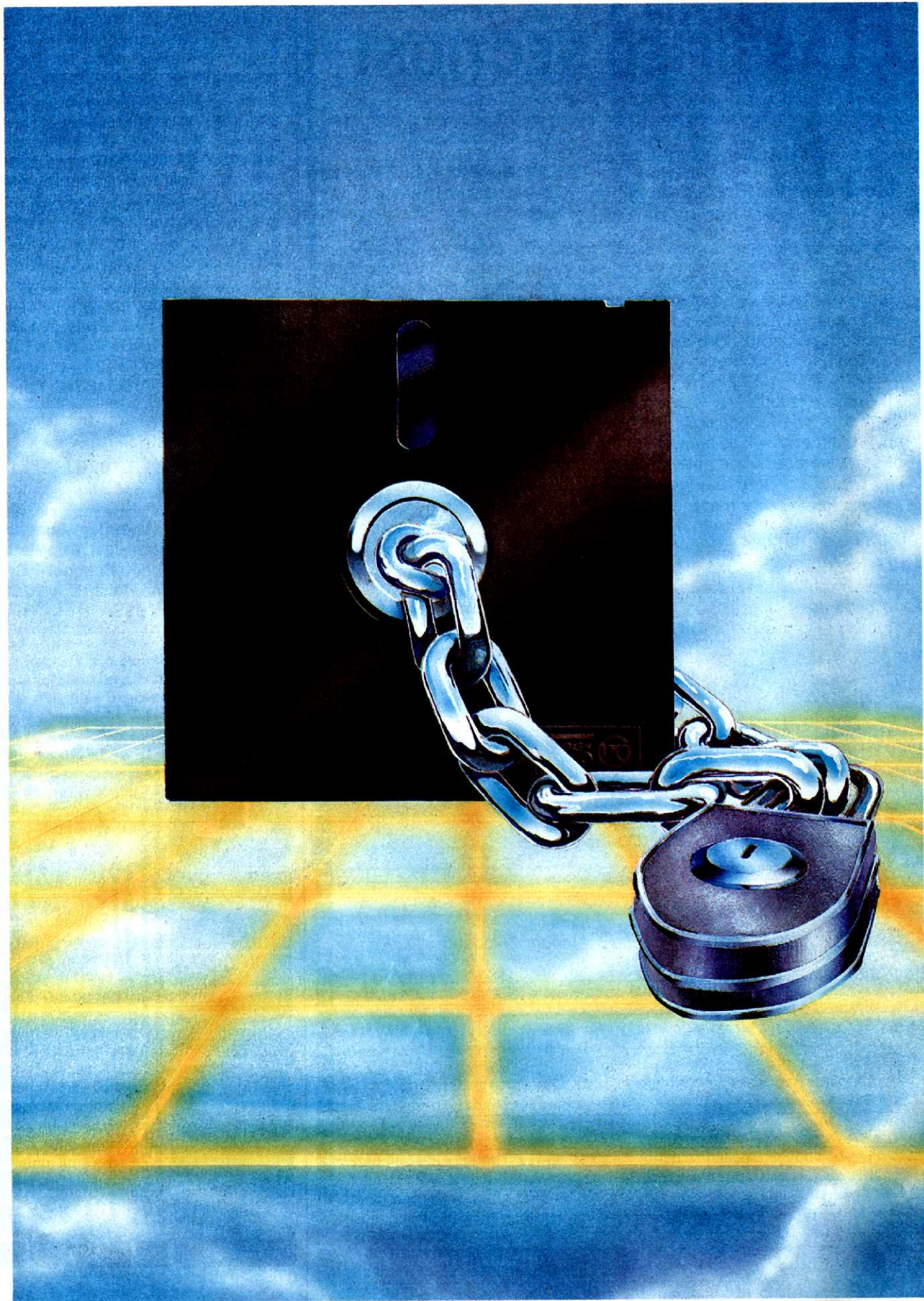
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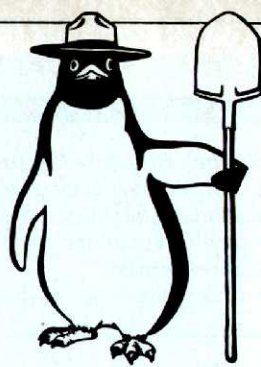
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■ MENACE OF THE ■ SOFTWARE PIRATES

By BILL KUNKEL

When Electronic Arts released its groundbreaking **Julius Erving and Larry Bird Go One On One** in 1983, it was available only on the Apple. C-64 and Atari computer owners gnashed their teeth and waited.

Several months later, the Commodore 64 version appeared. All Atari owners could do was fume in frustration. After all, the Atari had long enjoyed a reputation as the leading computer for action contests. So where was the Atari edition?

As a matter of fact, at the time *One On One* in Atari format was still about half a year from release. No, there weren't any translation difficulties. Electronic Arts was waiting in order to insure that its lovely program would not fall victim to the latest and most insidious wrinkle in the long history of computer piracy: the disk duplicators.

Computer pirates are seldom the romantic figures portrayed in popular myth. Yet there's something undeniably attractive about these often gifted, if somewhat misguided, people. Pirates break protection schemes by the sweat of their brow, one balky byte at a time. And when a game finally "falls" — meaning that the code lies open to inspection and duplication — the typical pirate hardly pauses for a victory celebration before moving on to the next challengingly protected disk.

The advent of disk duplicators has created a new category of computer thief, the software mugger. Muggers simply employ one of the popular disk duplication programs — **Happy, The Inspector, Super Clone**, etc. — which they insert in their drives, follow a few prompts and, *voilà*, a disk is born. Mugging is so ineffably simple that most casual users just can't bring themselves not to use it. It carries with it all the intrinsic romance of xeroxing a tax

form, but romance isn't the point: free software is the point.

Software mugging is proving very expensive to everybody — including the muggers themselves. Ironically, in their lust to obtain the newest software, the vast horde of muggers frequently scare software publishers out of the business.

The British software industry presents a frightening example. Think for a moment about all those fantastic British software

packaging as a possible answer. Infocom games come with extensive documentation while programs such as **Sorcerer** include physical devices required for the interpretation of game data.

This is an interesting back-door approach to piracy, the goal being to diminish the value of the software alone. Nonetheless, few companies would want to lock themselves into such a potentially restrictive and expensive strategy. Put simply, not all software lends itself to the external bells and whistles required by this copy protection philosophy.

Penguin Software, on the other hand, has attempted to deal with mugging and piracy in a different manner. Penguin, in an altruistic bit of company policy, doesn't even bother copy-protecting their applications software, including instead an extraordinarily fair replacement policy. Any disk that fails within sixty days of purchase is replaced, free of charge. After that time period, users are charged a nominal fee for back-up copies.

As Penguin's literature states: "We feel this is a fair replacement policy, in line with our policy of not copy-protecting our applications software. Please help us by not copying our products for other than your own use."

Penguin's documentation also generally includes Preston Penguin, who "bears" an uncanny resemblance to another anthropomorphic animal-with-a-message when he says: "Remember, only you can prevent software piracy."

As a final incentive to stop illegal disk duplication, Penguin has done as much as anyone in the industry to keep the lid on their software prices. Of course, the muggers' use of high prices as a rationale for illegal copying is, at best, a red herring.

"That's just like the employee who steals from his employer because he feels

Look Out Copyrights — Here comes the New Generation of Software Muggers

programs you've enjoyed over the years. What, you say you can't think of any? That's because piracy has flourished unchecked in the U.K., and no company wants to spend time and money creating an innovative program knowing full well that the better it turns out, the greater the likelihood that the vultures will rip it off.

When it doesn't kill off titles altogether, mass piracy at the very least tacks dollars onto the price of software as the producers pay off the high cost of increasingly sophisticated copy protection.

Not all companies have turned exclusively to copy protection, however. Infocom, for example, counts on elaborate

SOFTWARE PIRATES

he's not being paid enough," reasons John Mathias, head of software design for Commodore, which is now actively prosecuting pirates.

Moreover, the mugger is more responsible than the companies for the high price

of software. Not only by stealing programs, but also by sharing with friends, the retail marketplace is diminished. The fewer paying customers there are, the higher prices remain.

The closer one looks at the situation,

however, the more clearly one particular group stands out as being culpable: the producers of disk-duplication software.

In homes all over America, otherwise-honest adults and adolescents are stealing the products of other people's creative labor. They are doing this not for kicks or as a statement of dissatisfaction with the state of software prices; they are doing it because it's so incredibly easy! All that's

IS THIS THE ULTIMATE SOFTWARE PROTECTION?

As profound an impact as piracy has had on the entertainment market, its effects can be even more pronounced in other areas.

Business software can run into the thousand dollar-plus category for a single package and, in these areas, copy duplication is viewed as deadly serious.

According to information compiled by the Ambassador Group, piracy has increased some 500% since 1980. A survey taken recently by the American Bar Association showed that of the 283 companies and software agencies questioned, 48% indicated they had fallen victim to computer crime, including piracy, with dollar losses as high as the hundreds of millions.

Industry's most traditional method of dealing with piracy has been in the area of copy protection. Protection schemes have become a growth industry and, just to prove it, two big name firms have announced what may comprise the leading edge in protection technology.

Elite Software Systems, Inc., an Albany, New York-based operation has just made an intriguing offer regarding ENCOMP, their slick new encryption system. ENCOMP allows users to initiate the use of passwords with up to three hundred characters.

With this many characters, even well-equipped pirates would have to be very lucky to break the code. As it happens, many pirates also break the

User-friendly or Not?



The computer version of Lucasfilm's *Rescue on Fractalus* was held up for months because of piracy.

law by stealing their telephone service. Using a small blue box, the telephone thieves can attach their computer modem to the line and simply have the computer try out the varieties of juxtaposed characters until it stumbles on the password — and they don't even have to pay for the phone time.

With three hundred characters, however, the odds against a break-in by way of random-character generation become astronomical. Elite is, in fact, so confident that its encryption system is secure that the company has posted a \$10,000 reward for any hacker who can break it, with an extra \$2,000 to the retail vendor who sold it.

At the other end of the spectrum comes a far more baroque protection scheme, courtesy of Asheton-Tate and several other companies.

They have developed a system in which each piece of software is coded by way of a series of holes. For each disk so protected, there is a "fuse". Only when the fuse and disk are matched will the software run. This will, it is theorized, inhibit piracy because anyone wishing to dupe a disk will also need to counterfeit the plug-in fuse.

Before our readers have a collective stroke, however, at the thought of harboring a new collection of fuses to match each piece of software, the latter scheme doesn't seem very likely to come to pass. On the entertainment software level, it is highly doubtful that any such elaborate approach could be instigated.

Systems such as ENCOMP are user-friendly. They add nothing in terms of user inconvenience and relatively little to the overall price. The fuse approach, on the other hand, seems to ignore the human element with its clumsy mechanics and obvious expense.

Even the best-designed, most practically-employed protection schemes, however, have little hope of denting piracy and software mugging. Until proven otherwise, the pirate's code continues to be operative: "If they can make it, we can break it."

EG'S 4 POINTS

As a result of the research done in preparation for this feature, the editorial staff of EG have reached a consensus on the matter of how the industry should address the question of piracy and mugging. The following are our suggestions:

1) The computer industry must use all its influence and power in an effort to have all copy-duplication software banned. No one has a legitimate use for a dupe disk, any more than they do for a machine capable of duplicating currency. As long as there are dupe

disks, it will be so easy to steal software that great numbers of people will not be able to resist.

2) Newspapers, magazines or any other medium carrying ads for dupe disks, pirated software or other piratical devices must be boycotted. This also applies to bulletin boards and even user groups through which pirated software is produced.

3) The software industry must set standards in the matter of warranties. Guidelines must be agreed upon so that defective software can be re-

placed in a manner equitable to both the manufacturer and the consumer.

4) Finally, the computer industry has got to get it together. The days when companies could play at being lone wolf are over. Piracy is a question so crucial to the entire eco-structure of the computer universe that it can not be settled by having each company seek out a separate peace.

EG requests comment on these proposals and other aspects of software piracy and program duplication from our readers.

required is a blank disk, a drive and a dupe disk and, wham, a forty dollar piece of software is produced.

The final, ironic note comes from Andy Finkel, now working on copy protection development for Commodore.

"The one thing I've noticed about them," he commented regarding dupe disks, "is that they never seem to copy themselves."

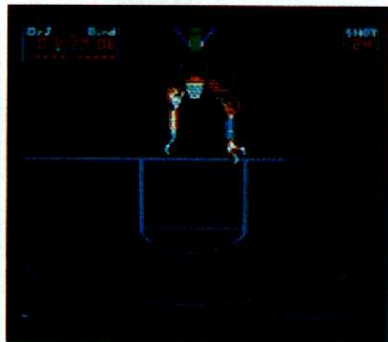


BUSTING THE WEST COAST CONNECTION

How bold have software pirates become these days? Would you believe that a major, California-based operation actually printed and circulated a 20-page catalog of their pirated goodies?

This time, however, the software industry reacted. Software Publishers Association (SPA), a group formed partially in response to the growing problem of piracy and software mugging, immediately hired a private investigator to purchase some software from the so-called West Coast Connection, retained a high-powered lawyer and contacted the FBI and U.S. Attorney's offices in San Francisco.

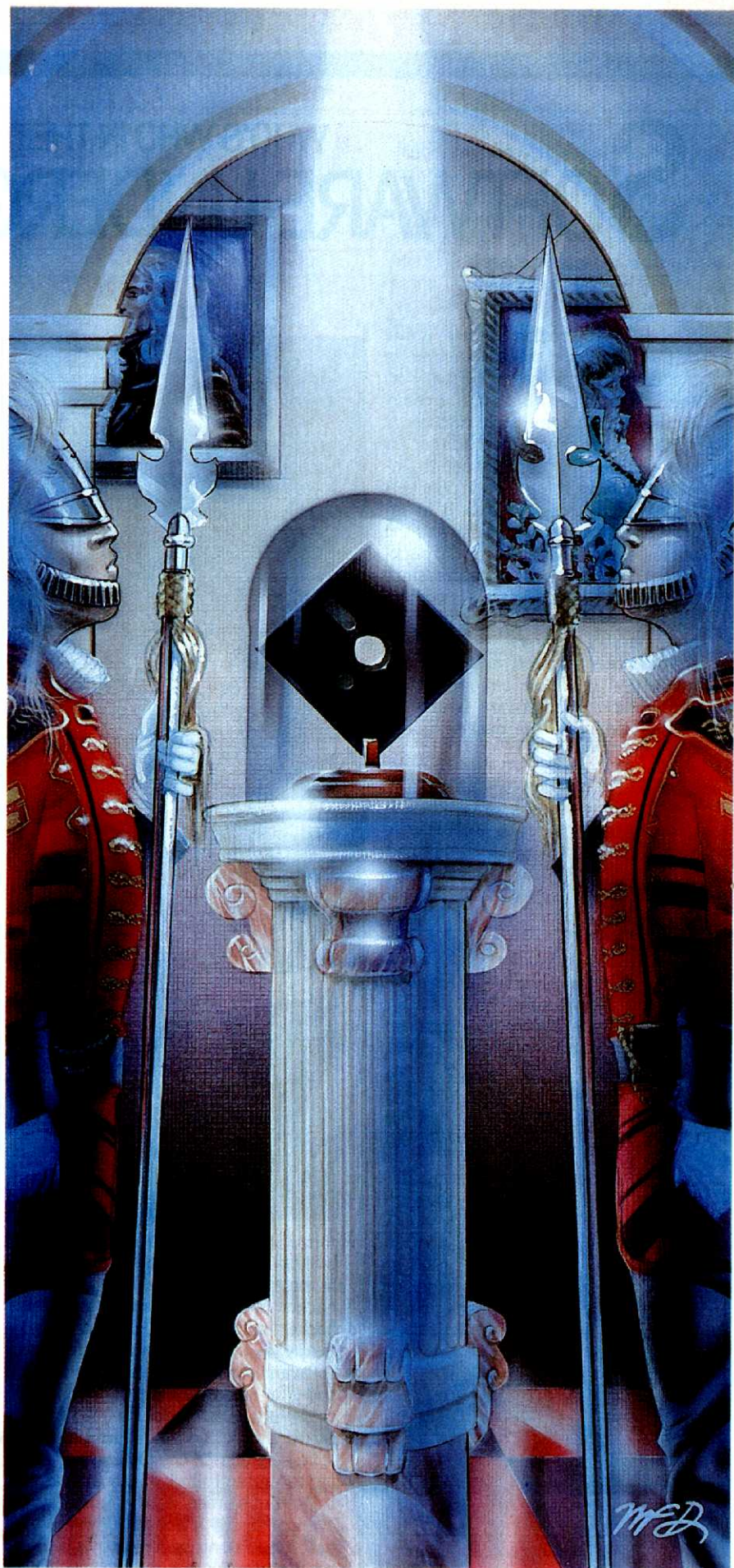
Soon after, the lawyers showed up on the pirates' doorstep and shut down the WCC operation. Uncashed checks were returned, and WCC signed a consent agreement and made a cash settlement with SPA.



Electronic Arts' *One on One*, a prime target for software pirates.

The entire business was settled within nine days of the time that the case was referred. No criminal prosecution was begun regarding the operators of the WCC — in fact, their names have even remained confidential information — because the infamous West Coast Connection was run by minors.

This is the third recorded action on the part of the SPA regarding piracy. Two previous cease-and-desist orders were agreed to by flea markets and a software "swap" service owners in the California area.



■ WHO'S WHO IN THE ■ SOFTWARE UNDERGROUND

HACKERS: The hacker tradition is one of the oldest and most venerable in the computer universe. Virtually all the major technological breakthroughs have come from hackers.

Hackers are driven by a hunger for knowledge; they feel the need to understand how things work. Hackers believe that access to data is as inalienable a right as life, liberty and the pursuit of happiness. As a result, hackers are the progenitors of pirates, since any type of protection code is seen by a hacker as a challenge that may not be honorably declined.

The hacker is a purist, and a hacker's motivation is almost beyond ethical considerations: codes are written to be cracked, goes the hacker motto, and that is that.



Muggers present the gravest danger to the industry.



PIRATES: Pirates are often hackers, but not all hackers are pirates. The pirate, or freebooter, differs from the hacker in terms of motivation. The hacker is driven by a need to know; the pirate is driven by a desire for free software. The hacker quest to break codes is essentially the same as the crossword puzzle addict's need to fill boxes with letters.

The element of challenge enters the pirate underground on an individual basis, but suffice it to say that the average pirate is not secretly hoping that Broderbund or EA builds a better copy-protection mousetrap.

SOFTWARE MUGGERS: The software mugger is the lowest echelon — and, therefore, the most populous — member of the computer underground. Muggers, like pirates, are motivated by a desire for software.

Muggers possess neither the hacker's curiosity instinct nor the pirate's skill. Muggers pick up programs somebody else has broken and simply copy them, using copy duplication software.

Admittedly, most muggers — unlike most pirates — are not in it for the money. They frequently make dupes only for themselves, or free copies for friends. Still, because of their number and the ease of duplication, they present the gravest danger to the industry.



After all this talk about pirates, hackers and software muggers, it seemed only appropriate to let *them* speak for a bit. The following discussion, with a pair of personable, young software thieves we'll call "Joe" and "Mike," took place October 20.

EG: What was the first piece of software you ever copied?

JOE: **Ghost Hunter**. The company that made it is out of business now.

EG: Hmm, I wonder if that's significant? What did you use to copy it?

JOE: **Lockpick**.

EG: How long did **Lockpick** remain a viable copier?

JOE: For about a week.

EG: You then moved on to — ?

JOE: A sector copier, mostly, and souped-up DOS. Now I use **Happy**, but I've seen **Disk Whiz**, **Archiver** and **Super Clone**.

EG: How do you get your initial copies?

JOE: Somebody buys them, and loans them around to friends.

MIKE: Or we chip in maybe \$10 each.

EG: So at least one copy gets sold.

JOE: And plenty of blank disks.

EG: So what about the bulletin boards? We've heard that they're a major source of bootleg software.

JOE: Yeah, we use bulletin boards too. . .

MIKE: Especially for Atari software.

EG: Tell me, don't you see anything wrong in stealing software?

MIKE: No.

JOE: They're ripping us off, so why shouldn't we rip them off?

EG: In what way do the software companies rip you off?

JOE: They charge \$30, \$40, even \$50 or more for their product. I buy my software when it's reasonably priced. If they really wanted to stop piracy, they should try lowering their prices — for just a month — and see what happens.

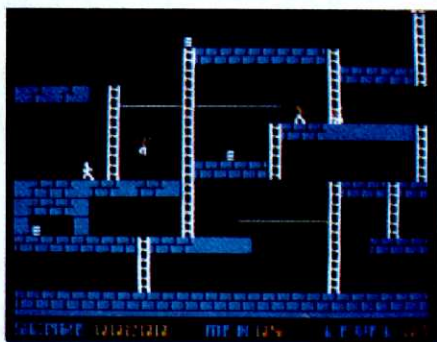
MIKE: Joe doesn't sell the software, which other people do — and I don't approve of that. He's just giving it away, so we're not in this to make money.

JOE: We just want the games!

EG: You acknowledge that some pirates do engage in this for the money?

JOE: Sure. There are guys out there who've invested, like, a thousand dollars on an Axlon 128K Ram Disk and an Omniman —

"If you want to stop piracy, try lowering the prices. . ."



Broderbund's **Lode Runner**, above, and **Necromancer** from Synapse. Programs from these companies give pirates a hard time.



EG: Which does what?

JOE: It gives you access to the program itself and you can make changes in it. For example, you can simply eliminate the copy protection entirely. But when you've got that much bread tied up in piracy, you know you're gonna be looking to make some of it back.

EG: Whose stuff is easiest to copy?

JOE: Let's see. . . Sublogic, Microprose (hell, you can copy their stuff in DOS!), and, of course, Atari — since their stuff is on every bulletin board in the world.

EG: Whose software is the most troublesome to dupe?

JOE: Broderbund, Synapse and, of course, Electronic Arts. Their new **One On One** for Atari computers was the first

major program that **Happy** couldn't copy.

EG: The **Happy** copier is your main tool?
JOE: Uh huh. But I hear they're going out of business.

MIKE: Too many people copied their program. (They laugh)

EG: Okay, let's say for argument's sake that you guys own your own software company and your financial person tells you that you can't lower prices. What would you do to cut down on software mugging?

JOE: I'd start a movement to ban **Happy** and programs like it!

MIKE: Yeah.

EG: Wait a minute! You mean you don't think they should be allowed to make copy duplication software?

JOE: Absolutely not. But it's there, isn't it? And the software is expensive, so if you want a program and you can't afford it, you take advantage of anything that gives you access to it. Especially when it's so easy. . .

EG: This is fascinating. Go on: what else would you do?

MIKE: Well, Infocom has that interesting approach where the documentation that comes with the game is so extensive that the software alone is useless. . .

JOE: Better copy protection is another help. I heard about this program called **Pro Copy**. I think, which guarantees against piracy, but I think they use it mostly on those expensive business programs.

MIKE: I'd send more demonstrator software to the retailers.

JOE: But the demonstrators they get now they just give away!

MIKE: Well, don't just send them the game, then — program a special demo disk that's just like coming attractions, but at least people can get a look at the stuff they'll be spending all that money on.

EG: I think you got closest to the heart of the matter when you say that it's so easy. That's really it, isn't it?

JOE: Yes. You don't have to spend hours and hours debugging copy protection codes any more. Just reinsert a disk in your drive a couple of times. When you're really into it like I am, how can you expect someone to turn down free software?

MIKE: Not me, brother.



VOICES FROM THE SHADOWS THE MUGGERS SPEAK

Great Action and Adventure Games for the First Mass-Appeal Micro

By ARNIE KATZ

In a field noted for overnight obsolescence, the Apple family of computers breaks the mold. Steve Wozniak and Steve Jobs showed visionary foresight when they invented the machine in the late 1970's, and the company keeps the system lively by periodically introducing enhanced and upgraded models. And unlike other vendors, Apple has preserved compatibility: any disk that boots on the venerable II+ also runs on the new IIc.

This stability in the midst of industrywide chaos has helped swell the Apple software library to more than 16,000 titles. More than half are games and entertainments, perhaps 10 times the number available for any rival computer.

Admittedly, the statistics tell a somewhat distorted story. Game quality has improved dramatically, so disks published as recently as 1983 may look dated. Though exceptions like **Zork** (Infocom) abound, many of yesteryear's invasion games and maze-chases look primitive to the jaded eyes of contemporary computer-gamers.

That still leaves lots of games and entertainments from which to choose. Though certain genres are undeniably thin, the sheer volume of Apple disks insures ample variety.

Apple computers do have some limitations. If head-to-head gaming is your thing, check into other systems. There's only one joystick port, and though there are devices which allow connection of one

or more additional sticks are available, publishers have produced little accompanying software. Its graphics can't match the Commodore 64 or Atari 800XL. Generating the audio in the console instead of external speakers makes many disks sound tinny. Employing a Mocking-board connected to mini-speakers improves games which incorporate this feature, but only a small percentage of current software does so.

The absence of sprite graphics, a limitation on the number of colors which can be displayed simultaneously, and less detailed image resolution keep Apple disks from looking as good as they might. This is most easily observed by comparing the same game in editions produced for different systems. On the other hand, some designers can work wonders, so that good Apple games look attractive, if slightly sparse, compared to programs for other machines.

Rapid disk access is another strength. Nothing spoils the mood of an adventure like having to wait several minutes every time the console and drive need to consult.

THE APPLE ACTION ARCADE

Here's a computerish irony: The Apple owes a big part of its success to its ability to fascinate highly intellectual computer scientists and programmers. Yet the system's software library holds a veritable treasure trove of action contests which require rel-

atively little brainwork.

It just goes to show that computer geniuses, like the rest of us, need the catharsis of an occasional real-time romp. It must also be noted that the technowizards often inject much strategy into arcade-style software, so action programs for the Apple seldom ape the "turn off your mind and play by instinct" style of videogame cartridges.

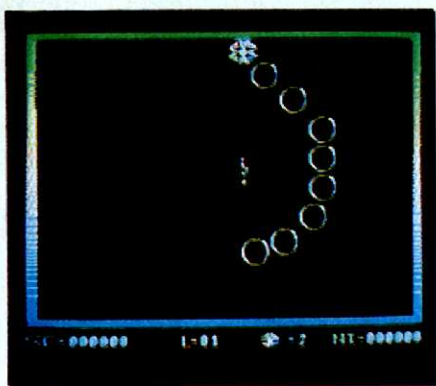
Few straightforward invasion games have survived. That's probably fortunate, since most appeared early in the Apple's life cycle. The market for crude clones of Taito's **Space Invaders** has understandably declined.

Some programmers have rung interesting changes on the basic invasion game theme. The most famous is **Centipede** (AtariSoft), which transfers the excitement from outer space to a bug-infested garden. **AE** (Broderbund) and **Round About** (Data-Most) test space aces with field after field of aliens which zoom around the screen in sometimes-perplexing arcs and swirls. Mark Turmell has endowed **Sneakers** (Sirius) with whimsy. The attackers in this multi-wave invasion contest are no less deadly for their comical appearance, but the light-hearted visuals have kept **Sneakers** selling years after its release.

There's enough shooting to satisfy any blast brigadier in Paul Coletta's **Time Tunnels** (Reston). The added complications arise from the player's ability to move the

Entertaining Software for your Apple

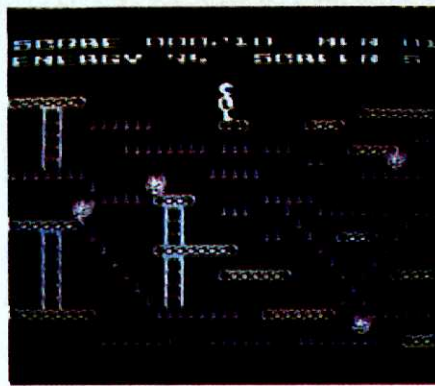




ROUNABOUT (DATAMOST)



ZAXXON (DATASOFT)



MR. ROBOT & HIS ROBOT FACTORY (DATAMOST)

cannon around the entire periphery of the playfield — or even teleport it from one edge to the opposite side. The option to fire torpedoes horizontally as well as vertically gives Ed Hobbs' **Seafox** (Broderbund) its distinctive character. The player captains a submarine in an attack against an enemy convoy in this military-themed shoot-out.

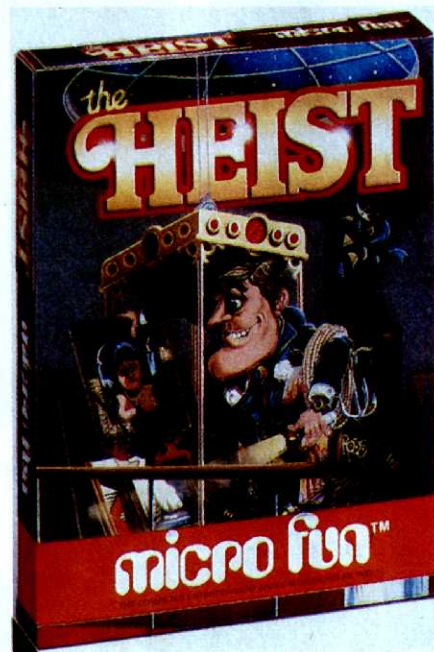
Apple shoot-'em-ups which premiered in arcades include **Robotron** (AtariSoft), **Zaxxon** (DataSoft) and **Jungle Hunt** (AtariSoft). Those who enjoy frenetic fireworks a la **Tempest** can scratch their itchy trigger fingers with **Axis Assassin** (Electronic Arts) and **Tubeway II** (DataMost). **Mr. Do** is coming from DataSoft, which has also bought such well-known licenses as **Donkey Kong** and **Pac-Man**.

Four scrolling shoot-outs dominate the scene. **Defender** and **Star Gate** are reasonable facsimiles of the coin-ops. **Aquatron** (Sierra) blends airborne and undersea combat, while **Repton** (Sirius) presents highly differentiated, colorful aliens.

Choplifter (Broderbund) incorporates some elements of the traditional scroller in its action-strategy scenario. The player pilots a chopper on a mission to rescue 64 hostages and carry them to safety in the free world. More arcade-like but nonetheless reminiscent of **Choplifter** is **Jump Jet** (Avant Garde), a solitaire two-scenario combat contest in which the player must protect the loyal fleet while dealing death to an assortment of enemy cruisers, submarines, kamikazes and rocket launchers.

There's no shortage of jumping and climbing games. The Apple edition of **Miner 2049er** (MicroFun) is superb. And by the time you've gotten the best of its 10 screens, the sequel — title still under debate — should be hitting the retail shelves. **Mr. Robot and His Robot Factory** (DataMost) is a slickly programmed cousin of

Miner with a few extra play-elements and a system for generating more playfields. **Hard Hat Mack** (Electronic Arts) and **Sammy Lightfoot** (Sierra) each have "only" three screens, but they don't lack variety. Mack is a construction worker trying to get a building finished despite interference from OSHA representatives and vandals.



Long-haired Sammy must perform a series of acrobatic maneuvers to bring him eyeball-to-shades with a nefarious pumpkin.

Doug Smith's **Lode Runner** (Broderbund) — 1984 Computer Game of the Year in Arkie Awards balloting — demands agile wits as well as nimble fingers. The gamer must solve each playfield before proceeding to the next, and there are 150 of them to keep the old grey matter

busy. **Championship Lode Runner** (Broderbund) lacks the original's playfield generator, but its 50 screens are hard for even masters to beat.

Dino Eggs and **The Heist** (both MicroFun) require more thinking than the typical action game, too. The **Dino Eggs** player saves prehistoric reptiles from extinction by ferrying their eggs and babies to safety in the far future in a time machine. A bit more "real world" is **The Heist**, in which the participant guides spy Graham Crackers through a museum in a hunt for a hidden microdot. The Apple edition contains more than 25 tri-level map sections.

Eat-the-dots disks never caught on in a big way among Apple-ites, though AtariSoft has had **Pac-Man** and **Ms. Pac-Man** on the market. **Snack Attack** (DataMost) employs much the same play-mechanic as the **Pac**-disks, plus a few added wrinkles like color-coded doors on the playfield which admit either the monsters or the whale/protagonist. **Oil's Well** (Sierra) and **Lady Tut** (California Pacific) are more typical of the breed in that they add other play-features to the basic maze configuration.

Tipping the balance even further in the direction of "think tank" software are **C'est la Vie** (Adventure International) and **Star-Maze** (Sir-Tech). The former is a family/social level money game, while the other crosses labyrinthine playfield architecture with aspects of thrust-fire and shooting games.

One-time coin-op **Dig Dug** (AtariSoft) is probably the best-known of the create-your-own maze games. Coming up rapidly — and even reversing the usual procedure by going into the arcades after making its homescreen debut — is **Boulder Dash** (MicroFun). Scooping up all the jewels on the playfields without getting buried by an avalanche has proven tremendously pop-

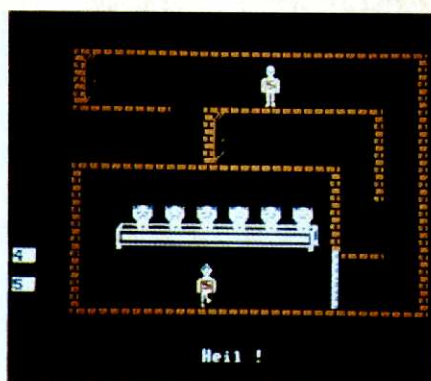
Apple



HARD HAT MACK (ELECTRONIC ARTS)



LODE RUNNER (BRODERBUND)

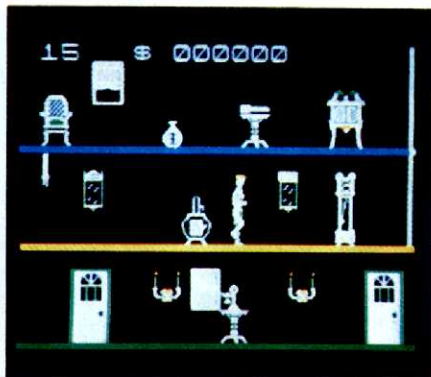


BEYOND CASTLE WOLFENSTEIN (MUSE)

ular, so a sequel is a definite possibility. **Drelbs** (Synapse) has a playfield composed entirely of movable walls which the player pushes into squares to score points while avoiding the tenacious attack of several types of rovers.

Castle Wolfenstein and **Beyond Castle Wolfenstein** (both Muse) are maze/

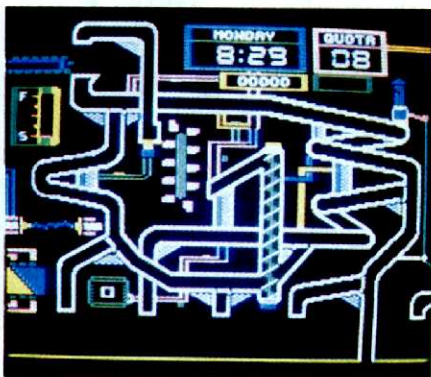
with humor have gained greater acceptance. Several of the best — **Spare Change**, **Drol** and **Gumball** — come from Broderbund. The first-named is particularly relevant, since it satirizes the gaming world by casting the player as an arcade operator out to stop the rampage of a couple of refugees from an out-of-whack coin-op.



MABEL'S MANSION (DATAMOST)



Apple software runs to over 16,000 titles.



GUMBALL (BRODERBUND)

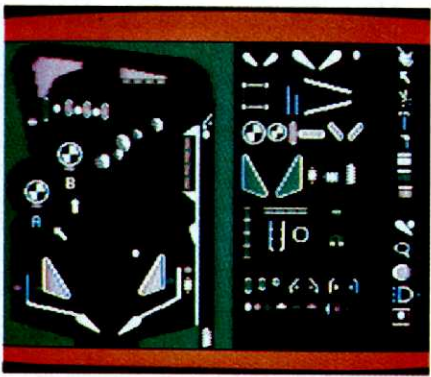
adventures — and among the best games available for the Apple. The first casts the player as an escaped Allied prisoner during World War II trying to get out of an SS prison with secret war plans, while the sequel involves the plot to assassinate Adolf Hitler by planting a bomb in his secret conference chamber. Crisp speech synthesis adds luster to what are already nail-bitingly exciting programs.

Aztec and **Mabel's Mansion** (both DataMost) are both about midway between maze and climbing games. The use of keyboard control widens the list of options at a slight cost in playability.

Now that more and more gamers play for the experience rather than just the final score, programs which leaven the action

Dogs from outer space provide the menace in **Trompers** (Avant Garde). The player shuttles back and forth across the bottom of the screen trying to catch alien puppies in a net as they leap from their flying saucers. Tom Becklund provides a more directly menacing force in **Bouncing Kamungas** (Penguin) in the form of big-eyed green hoppers who want to bounce on the head of the poor farmer trying to raise a few plants at the bottom of the screen.

Bill Budge is the father of computer pinball. His 1981 **Rasterblaster** (BudgeCo) created the field — and it still looks and plays pretty well today. Budge's greatest fame, however, is probably **Pinball Construction Set** (Electronic Arts) which lets



PINBALL CONSTRUCTION SET (ELECTRONIC ARTS)



DAVID'S MIDNIGHT MAGIC (BRODERBUND)



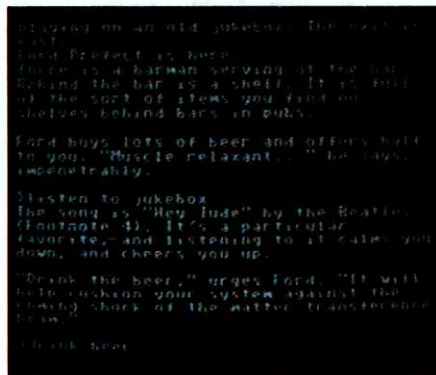
ARCADE BOOT CAMP (PENGUIN)



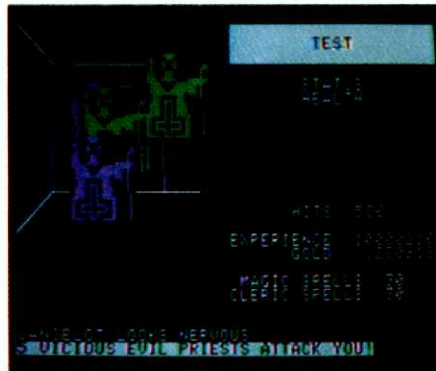
DEATH IN THE CARIBBEAN (MICROFUN)



QUEEN OF HEARTS (SSI)



HITCHHIKER'S GUIDE TO THE GALAXY (INFOCOM)



STANDING STONES (ELECTRONIC ARTS)

anyone who can manipulate a joystick design feature-laden video pinball tables.

Another near-legendary designer, Bruce Artwick, is the creator of the most comprehensive flipper game simulation, **Night Mission Pinball** (subLogic). Themed to a World War II bombing raid, *Night Mission* is so faithful to its inspiration that the computerist must insert an electronic quarter in the on-screen slot to get the fun underway. The ability to easily vary almost every playfield parameter makes a great program even greater.

Perhaps the best-playing computer pinball table is the bi-level beauty featured in David Snider's **David's Midnight Magic** (Broderbund). Multi-ball play, rollover targets and a progressive bonus scoring system are only a few of its many highlights.

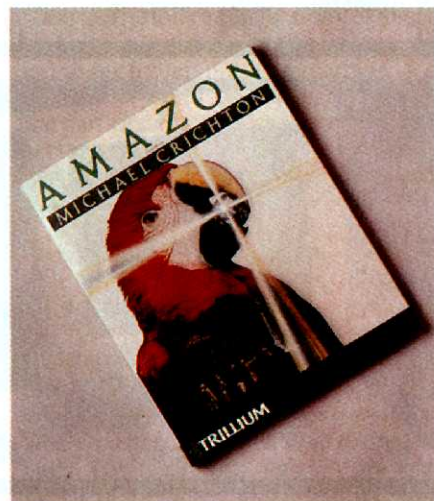
Zero Gravity Pinball (Avant Garde) transfers this traditional pastime to deep space. A field with five-flipper banks on each side and forcefields top and bottom to keep the ball on the celestial table. The effect of null-gravity on the movement of the ball makes this program quite a change from conventional pinball, but it's fun in its own right. Coming from a somewhat unexpected source is **Queen of Hearts**, a video pinball disk from Strategic Simulations, best known for its military strategy simulations. It's good, solid pinball with just enough exciting play-features.

And finally, if you just can't get on top of action games, there's John Besnard's **Arcade Boot Camp** (Penguin). This multi-part program is a tutorial in the various skills needed to become an arcade ace. A bit of practice with any or all of the modules will improve performance on the corresponding action contests, and the game-ettes are interesting enough to make the study reasonably entertaining.

THE APPLE ADVENTURER

The Apple has long been the adventure

gamer's favorite system, and no wonder! Almost all of the classics — **Zork I, II and III** (Infocom), **Ultima I, II and III** (Sierra, Origin), **Wizardry** (Sir-Tech), and **Wizard and the Princess** (Sierra) to name a few — were programmed for the Apple and then, in some cases, translated for other microcomputers.



Time Zone (Sierra), **Star Cross** (Infocom), **Planetfall** (Infocom), **Empire I, II and III** (Peachtree), and **Cyborg** (Sentient) are the long-established stars in a galaxy of science fiction adventures.

And speaking of the Milky Way, one of the best of recent releases is **The Hitchhiker's Guide to the Galaxy** (Infocom). Based on the radio series and subsequent novel by Douglas Adams, it carries the player/protagonist from his quiet little home on Earth to the ends of the universe. One of its biggest attractions is that Adams handled all the plotting and wrote the text which appears on the screen.

Amazon is the best of several intriguing adventure-novels based on famous science fiction novels recently published by

Apple



THE QUEST (PENGUIN)



EXPEDITION AMAZON (PENGUIN)



SHERLOCK HOLMES: HIS FINAL BOW (IMAGIC)

Trillium. Done under the close supervision of Michael Crichton, it closely parallels that author's "Congo", while being sufficiently different from that 1983 novel to keep the experience of being a secret agent trying to unravel a scientific riddle fresh and exciting. Though the adventure is essentially prose, frequent (and good) illustrations add much to the fun. Another way *Amazon* differs from the typical adventure is that it is character-oriented rather than plot-oriented. There are plenty of things which must be figured out, but Scott Adams-type puzzles are mostly absent. Instead, *Amazon* rewards the player for acting in character and terminates the game if the computerist gets too far out of sync. *Fahrenheit 451* and *Rendezvous with Rama* are other Trillium titles apt to appeal to the science fiction fan.

Sorcerer and *Enchanter* (both Infocom) comprise the first two installments of a trilogy along the lines of the same company's *Zork* series. This time, however, the computerist gets the vicarious experience of role-playing a magician.

King's Quest (Sierra) is a two-disk action/adventure which sets new standards for this genre. The hero is controlled by the joystick as he wanders through a beautifully drawn fantasy world. There is also some keyboard order-entry to give the play more depth and variety. Roberta Williams, an established adventure game design star, shows she's still among the best. Sierra's *Wizard and the Princess* and *Cranston Manor* are illustrated fantasy adventures which are also worth some computer time.

Xyphus (Penguin), *Shadowkeep* (Trillium), and *The Standing Stones* (Electronic Arts) are all full-blown multi-level role-playing games in which the on-screen adventurers work up slowly in experience (and consequent power) before tackling an Ultimate Goal. *Questron* (Strategic

Simulations), a 1984 Arkie Award nominee, is a panoramic quest game that should particularly appeal to fans of Lord British's *Ultima* series. It uses a similar game system, enhanced with a superior graphic treatment of the underground labyrinths and an elegant menu-driven order entry scheme operating off the joystick.

More linear are the fantasy adventures which send the hero or heroine on a specific mission with few, if any, sidetrips. *Wizard and the Princess* (Sierra), is probably the best-known illustrated adventure of this type. Penguin has a couple of good titles in *Quest* and *The Coveted Mirror*. One of the former's most intriguing aspects is that the computerist is not a sword-slinging colossus, but rather the brainy advisor who guides the champion on the quest. *Empire of the Over-Mind* (The Avalon Hill Game Co.) is a text adventure that blends magic and super-science in a tale of two worlds under the domination of a tyrannical intelligence.

The popularity of "Raiders of the Lost Ark" has revived interest in stories about travel in far-off mysterious lands. Though Indiana Jones has not yet reached the home gaming screen, his fellow explorers are there in force. *Expedition Amazon* (Penguin), *Infidel* (Infocom) and *Sands of Egypt* (DataSoft) are all in this mold. Even more in the tradition of H. Rider Haggard and Talbot Mundy are *Mask of the Sun*

and *Serpent Star*, both created by UltraSoft and now published by Broderbund. And if venturing into the enigmatic depths of the sea is your fantasy, dive into *Cutthroats* (Infocom), a 1984 text adventure.

Of course, you don't have to start out to have a Great Adventure in order to land in the soup. *Death in the Carribean* (Micro-Fun) chronicles what can happen when the unwary tourist picks the wrong place for a little fun in the sun. *Escape from Rungistan* (Sirius) offers a similar premise, but doesn't quite come up to *Death in the Carribean* in either graphics or plot. One spot that is definitely not recommended for vacationers is *Transylvania* (Penguin), a lavishly depicted illustrated adventure with a wierd horror theme. Antonio Antiochia pushes this adventure game format about as far as it will go.

Deadline, *Witness* and *Suspect* (all Infocom) form a series of increasingly baffling text adventures with a detective theme. The last-named is especially exciting, because the computerist assumes the role of a man wrongfully accused of a killing.

The Vodac Conspiracy (Ibidinc) has a more international flavor. As a super-spy, the computerist must journey to the Alps to confront evil. *Crimestopper* (Hayden) is an illustrated adventurer starring Ace Clubs, a knockabout detective in the Sam Spade tradition. Coming soon is *His Final Bow* (Imagic), in which Sherlock Holmes must solve a whole string of crimes aboard an oceanic voyage.



Next issue, *ELECTRONIC GAMES* presents the second part of this survey of entertaining software for the Apple family of computers. Coverage will include strategy games, sports simulations and entertainments.



By ROBERT ALONSO

Turning Your Hobby Into \$\$\$

Do you think all software designers belong to an elite group of social hermits, wearing ripped sneakers, blue jeans and T-shirts, who date

HOW TO BECOME A



their computers instead of pretty young things? Think again. In fact, if you enjoy computer games, especially creating them, think about joining the growing group of respected people who are making a lot of money in this artistically satisfying, lucrative field.

Computer game designing is a profession that has been explored by everyone from students to homemakers. Did you know that the **Zork** trilogy was created by a medical student, or that the **Ultima** series was developed by Lord British from his personal experience in a pseudo-medieval society?

Computer game designers are unique in that they begin designing and making money at a young age. They develop their talent in all directions, as well as command high fees. The market for computer games is rapidly expanding, and the more original or difficult an idea, the better its chances of becoming a hit.

In today's marketplace, **Defender** clones, and just about any other derivative action game, have almost no chance of being accepted by a major publisher. Sure, there are some smaller outfits that *may* buy it, but that's not true success. To have a successful product the designer must be able to write an original program in machine language, and then be able to document or explain the program thoroughly. Machine language has become the standard, because it's faster, less error-prone, and harder to copy than BASIC. Some manufacturers will demand line-by-line documentation, so that programmers with experience on machines other than the original program's can write versions for those machines. The fact that software titles are now made available for more than one system makes it even more important for a programmer to deal with a

larger company. As Miner 2049er creator Bill Hogue can testify, more versions translate into more money and more national recognition.

Some large companies actively seek new programmers by advertising in

need an extra product, or because the program doesn't fit in to the publisher's current line. More often, though, the reason is that the game is in BASIC or is just too similar to other games on the market to really become a big hit. If

circling around for fresh meat. The market for computer books was the publishing growth field of 1983 and it is expected that sales will continue to climb. Because of this, computer book publishers are giving out contracts to just about anyone who knows something about computers.

Some people are intimidated by the prospect of writing a book. This is natural. Writing a book is a job that takes time and patience, but even the very inexperienced can write a book with a little help. If you have something to say or explain, or programs that can be of use to other computer hobbyists, find someone to help you and write a book. Some books can net more money than a software program.

Getting a book published is not as complicated as many people think. The first step is to have a clear idea of what you want to write about and about who the potential audience is. Then, sit down and write an outline of the book and a sample page or two. Next, go to a bookstore and pick a publisher who you feel has a good reputation and whose books are well-distributed. Obtain their address from the inside of the book (usually the first couple of pages will have the information) and call the company to ask the name of at least one submissions editor. Once you have the name of an editor, send your outline and sample to that person with a self-addressed, stamped envelope. Their answer should arrive after four weeks. If not, call the editor that you sent the material to and very politely ask what he or she thought of your idea. If the material was not suitable, ask for advice on what would be of interest to them. If everything fails, send the outline to another publisher.

Like software companies, there are many computer book publishers. Of these, Hayden Book Company is very helpful and enthusiastic with beginners. Their address is 10 Mulholland Drive, Hasbrouck Heights, New Jersey, 07604. Another good computer book publisher is Howard W. Sams & Company of 4300 West 62nd Street, Indianapolis, Indiana, 46268.

"Computer game designer" has become a viable career choice, right up there with doctor, lawyer, and engineer. Young people, as well as some older ones, are making fortunes with software, magazine articles, and books. You could be the next one, so don't delay, write a program, article or book today!

GAME DESIGNER

computer magazines and by placing mail-in cards inside their software packages. One such company is Broderbund, 17 Paul Drive, San Rafael, California 94903. Broderbund stuffs an ad in every product that it sells.

Another company that spends a lot on advertising for free-lance submissions is The Software Guild. It's located at 2935 Whipple Road in Union City, California, and frequently places two-page ads in magazines. This company is determined to obtain name recognition similar to Atari's and Activision's, and is probably a good bet for programmers wishing to sign on and be one of the first.

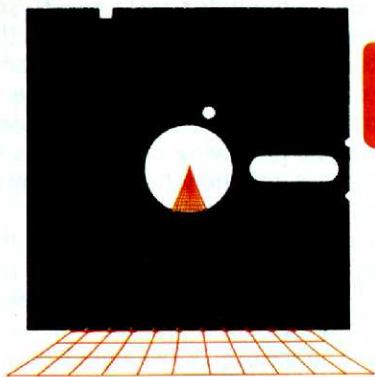
Although there are many companies that are eager to look at new software and even to distribute it, the free-lance software author should be wary of unscrupulous practices. Contracts should be examined by a lawyer and no deal should be finalized until mutual responsibilities are understood. One organization which claims to help potential authors — and established ones — in matters such as contracts and obtaining useful information on the market is the National Association of Freelance Programmers, P.O. Box 813, Vienna, Virginia, 22180. For \$58 a year, the NAFLP sends programmers a monthly newsletter which contains two sections, one with articles with such diverse subjects as controlling piracy and tax deductions, and the other is an up-to-date directory of software publishers and what sort of programs they publish.

Sometimes a program that the design thought to be excellent isn't accepted by any of the software houses. This often happens, sometimes because the publisher doesn't

the game is good and you'd still like to get it published, consider trying a magazine publisher. Computer magazines are always eager to purchase games and applications software to share with their readers. Being published in a computer magazine can increase a designer's status among other computer users who in the future may buy his or her new hits. It's also much easier to get published by a magazine than by a software publisher. Chances are that they won't mind BASIC programs, either.

Even with magazines, be very careful before signing any kind of agreement. Some magazines pay well and therefore expect more from contributors. One well-known magazine with a tremendous circulation requires that programmers give up *all* rights to the work. This means that they could use your program again and again, and even include it in a book, without ever paying out another dime. Practices like this are not common, though. Some publishers let the rights revert to the author after the original publication. This is probably one of the best kind of deals that a software author can hope for. The money that magazines pay depends on the circulation of the magazine and which rights they are purchasing. The more programs and articles you write, the more you can expect to charge per item, because you establish what is known as "name recognition." Simply put, this means that the more people know you and like what you write about, the more likely they are to buy the magazine you appear in and therefore the more you are worth to that magazine.

For the more ambitious, there are always the book publishers. The best description of a book publisher these days is that of a very hungry shark



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ACTION ARENA

SKYFOX

Designed by Ray Tobey
Electronic Arts/Apple/64K Disk/\$40.00

How would you like to be at the controls of a computerized fighter craft of tomorrow that goes from zero to Mach 4 in 4 seconds, turns on a dime, and is equipped with state-of-the-art radar and guidance systems and virtually every heavy-duty armament you can imagine on-board? If this sounds like your cup of tea, then *Skyfox* is your kind of game!

Kudos to Ray Tobey for an absolutely magnificent job of programming. Control is achieved through the joystick, and the software accommodates a Mockingboard for even better sound than that provided by

the standard Apple's hardware. There are fifteen scenarios ranging from a training mission to a full-scale massive invasion. Five skill levels, from cadet to "ace of the base," are provided to keep the challenge and interest levels way up there with the best of them.

The real icing on the cake is the unbelievably terrific simulation of flying; it has to be experienced to be appreciated. As soon as the *Skyfox* is airborne, a sense of realism is imparted to the player that approaches vertigo on the steep climbs and dives of the craft, as well as an upset in equilibrium from the bullet-like acceleration and banking — it's enough to leave you breathless!



SKYFOX (ELECTRONIC ARTS)

The keyboard is utilized to call up additional displays and functions, such as zooming the radar display, engaging the automatic pilot, activating the shields, and numerous other options. The normal screen display puts the gamer in the cockpit, replete with all gauges and instrumentations, and provides a 180-degree view out the windows of this high-tech fighter.

The program makes full use of the excellent graphics capabilities of the Apple, and leaves nothing lacking in the way of excitement or enjoyment. *Skyfox* is a sure winner if ever there was one!

(Tom Benford)



SKYFOX (ELECTRONIC ARTS)

TAPPER

Sega/C-64/Cartridge

Sega did a terrific job of translating the popular quarter-eater *Tapper* into a cartridge-load version for the Commodore-64. The sound, graphics, animation and play-action are all on a par with the coin-op original.

Play is initiated either through a joystick or the keyboard, and *Tapper* accommodates either one or two players. Three levels of play are selectable, spanning Beginner, Arcade and Expert.

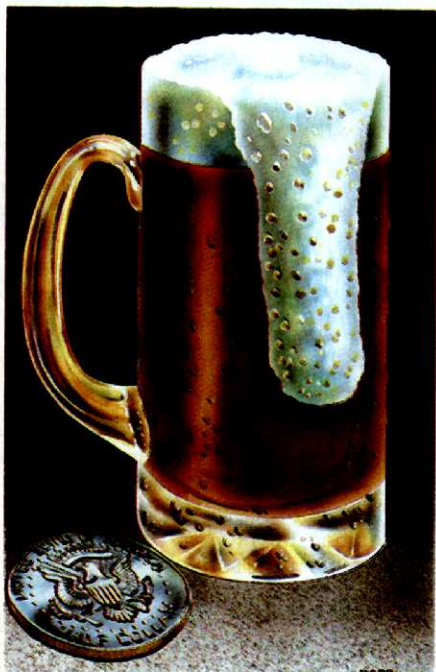
Just as in the original, the player controls an on-screen bartender, who must cater to the desires of his customers, filling and refilling their mugs of beer while catching the empties that they slide down the bar toward him. He'll also want to collect the



TAPPER (SEGA)

tips they leave for good service, since retrieving a tip will start a "can-can" show that temporarily slows down the suds-guzzling action; these dance shows are a great way for the player to catch up with the customers' thirst. The beginner level provides the player with five bartenders, while the arcade and expert levels only supply three. The arcade level is true to the original in all respects, except for the missing Budweiser commercial seen on the coin-op version. The play-action speed is greatly increased on the expert level, and the suds go sailing at dizzying speed. The object of the game on all levels is to keep the customers happily in beer while watching the empty mugs. Each time you miss an empty, one bartender is forfeited. Each successive round supplies more customers with greater thirsts to increase the difficulty level of play.

The novel "shell-game" intermissions present on the arcade version are included in the C-64 version as well. During these intermissions, a prankster shakes up all but one can of Mountain Dew and mischievously swaps the order of the cans. The player must direct the bartender to the can that wasn't shaken. A correct guess rewards the gamer with bonus points, while a wrong guess sprays the bartender with soda pop!



Tapper is an excellent translation of a game that's genuinely fun to play. While amusing to watch, it requires good hand/eye coordination, great reflexes and a "sixth sense" for timing to play competitively! This offering is sure to quench your gaming thirst.

(Tom Benford)

PASTFINDER

Designed by David Lubar

Activision, 1984/

Atari/Cartridge/\$34.95

As Activision fills its pipeline with action games, in preparation for the release of some freshly created computer games, a few interesting artifacts are turning up. Among them is David Lubar's *Pastfinder*, which would have done much better two

the spider-ship itself is clearly the star of *Pastfinder*. Its four hydraulic legs enable this constantly-moving craft to scramble almost laterally one second, then bound into the poisoned sky the next. The targets, which constitute the real point of this game, are positioned at a variety of heights, forcing the player to take the ship off the ground in order to destroy them.

The problem with *Pastfinder* is shared by almost every other target-oriented action game: after a half-dozen play sessions, there is little left. Once the novelty of the perspective, a sort of vertically-scrolling *Zaxxon*, and a leaping fighter craft wear off, it's just another mindless shootout.

Still, now that Lubar has demonstrated mastery of the action game, there may be better things in the future.

(Bill Kunkel)



PASTFINDER (ACTIVISION)

years ago, but which is not without merit even today.

Here's the context: the player assumes the role of a futuristic archaeologist, scouring the radiation-drenched surface in search of artifacts. The exploring is done in an intriguing, spider-like craft that creeps, leaps and scuttles over the slightly angled, vertically-scrolling landscape. Of course, the ship is armed with the obligatory laser cannon capable of obliterating the gallery of hovering but otherwise non-functional ships that litter this radiated terrain.

A pair of extra screens has been incorporated into the play and keeps the program from seeming hopelessly antiquated. One is a topographical map, which expands as territory is explored by the *Pastfinder*, and the second is a list of supplies that explorers may take with them into the burnt-out boneyard (such as Beam Shields, Scramblers and Deradiators). Nonetheless, these elements seem clumsily grafted on to what was clearly intended as a stone cold blast-'em-up.

The action is satisfyingly rendered, and

RAID OVER MOSCOW

Access Software, 1984/C-64/Disk/\$39.95

This multi-phase action game offers plenty in the way of visuals and sound, though the play-action is nothing really new. The scenario: The Soviets have launched a first strike against major American cities, and their missiles can be stopped only by entering the Soviet control centers (located in each Russian city) and destroying the guidance systems.

The opening phases of the game are by far the best. As soon as the alarm sounds, the player has to enter the jet hangar and get those planes in the air. The hangar sequence is cleverly drawn and highly challenging. The pilot must lift the plane high enough off the platform to activate the hangar door, then maneuver it into the open sky. This is more easily said than done, since the plane has no brakes! A combination of thrust and turn maneuvers, coupled with an occasional press of the action button to counteract the effects of gravity, make for delicate work, indeed. The player has the option of launching



RAID OVER MOSCOW (ACCESS)

more than one plane at a time (which keeps gamers from losing valuable time later), though each craft must be successfully flown out of the hangar.

The next phase involves entering the Soviet city, indicated by a white flashing on the tactical screen. Simply move the white dot that represents the aircraft until it touches the flashing city, and you're in.

Unfortunately, this is where the great part ends. Each city is shown in a beautiful, three-dimensional display, and the player flies, *Zaxxon*-like, through the city's outer limits. But after only one game it will be pretty obvious that the cities are *exactly* alike — down to the truck that drives across the screen next to the Russian office building. It would have made the game infinitely more enjoyable if the designers had randomized the screens, even just a little. As it stands now, it's just a pattern game.

Upon surviving the dogfight with a helicopter that marks the end of the city screen, the player reaches the final goal: a row of five towers defended by a single tank. This sequence is reminiscent of a *Space Invaders*-type shoot-out, only movement is both horizontal *and* vertical, since the plane must shoot each building from the proper altitude. As soon as the plane is lined up properly, it turns blue to signal the player. But, for all the challenge involved in taking out all five buildings, only the center building has any bearing on the mission's success. Destroy it to stop the nuclear attack.

Play continues until all the Soviet cities have been disabled. The cities are virtually identical, except the last one, Moscow, in which the player takes over Kremlin itself with a bazooka.

Raid Over Moscow has pluses and minuses, though the good overshadows the bad. Four difficulty levels keep the game from losing its challenge, and the graphics are truly first-rate. It's too bad that the hangar sequence comes so early in the game, though. It's so much fun that it could have served as an incentive for getting through the lulls.

(Tracie Forman)

PARK PATROL

Designed by Tony Ng.
Activision, 1984/
Commodore 64/Disk/\$31.95

This program is aimed primarily at the younger set, though it also fulfills the fantasies of any adult who wanted to be, but never became, a scout or camp counselor.

This pixel pleasure boasts some of the finest, sharpest graphics ever to grace a home set-up. The comical animation continues the humorous outlook of the vivid visual enhancements. Wait until you jump over a creature to escape; the multi-directional "in-flight" capability is astonishing!

Flexibility is the key to **Park Patrol**. Once booted, a menu can be called up by depressing the F5 key. Compuplayers may then alter the frequency of appearance of the game's nemeses in any of five sequential levels of play. If you want four swimmers and two giant picnic ants in the first and third rounds with two swamps and 24 turtles in the second and fourth, go ahead and change the menu. Save it to disk, then load it for playtime. (All the options are joystick selectable from an options menu under the table of gaming possibilities). It's as easy as eating Mom's apple pie.

Gender and the number of rangers on patrol are also selectable (one or two), allowing your best friend to play. While the game isn't totally nonviolent, the constructive nature of the play-action should appeal even to non-action gaming types.

Rangers' lives are lost when the calorie bar is depleted (you must keep your strength up!); when gamers take a dip in the lake; or by contacting a roaming turtle. Even travel in the rubber raft isn't safe, as snakes come by to deflate it with their fangs. Mogwais may turn to gremlins when they get wet, but in *Park Patrol* rangers die from such exposure.

The ranger's main goal is to keep the grounds spotless while avoiding all the nasties. Between cleanup duties and being a part-time lifeguard for a bunch of trainee swimmers, players will soon find out why



PARK PATROL (ACTIVISION)

there's a shortage of rangers in our national parks.

Other items interact with the player's alter ego, including, but not limited to, the many logs floating about the lake and the power plant whose fruit gives you the ability to run. Rangers turn weekend gardeners here as they try to nourish the planet and make it a bumper crop.

Complete with a pleasant polyphonic melody, *Park Patrol* is like a breath of fresh air in the overcrowded, me-too world of electronic gaming. Keep in mind that this is not an educational game. It's pure entertainment.

(Ted Salamone)

GYRUSS

Parker Bros., 1984/
Atari computers/Cartridge/

Parker Brothers' **Gyruss** is an altogether excellent translation of the Centuri coin-op, shrewdly mixing elements of every arcade game from *Vanguard* to *Tempest*.

Using a joystick, players maneuver an armed spaceship in sweeping, circular motions around a focal point at center-screen from which a constant stream of enemy craft are generated. The object — what else? — is to blast everything on screen into teeny, tiny pixels, working one's way toward the center of the solar system.

The graphics, while reflecting the almost austere look of the arcade version, are superb. Everything from the genesis of the alien spacecraft to its obliteration is produced with considerable care. In addition, a rousing soundtrack (including Bach's "Toccat & Fugue in D Minor" and a manic main theme) helps keep the game moving.

For fans of old-fashioned, action-oriented rave-ups, you won't do much better than *Gyruss*.

(Bill Kunkel)

XYPHUS

Designed by Skip Waller and Dave Albert
Penguin, 1984/Apple II/48K Disk/\$34.95

Fantasy role-playing games have existed in the fertile minds — and tattered notebooks — of thousands of game-masters devoted to *Dungeons & Dragons*, *Runequest*, *Chivalry and Sorcery* and all the other non-electronic games of this ilk.

That appears to be the root of **Xyphus**, which combines elements of role-playing with an illustrated adventure format. In just about every aspect from documentation to the excellent on-screen visual presentation, this program has few peers in the entertainment software field.

The story of the world of Arroya is simple, yet logical. The demon lord Xyphus, who ruled the world many, many years ago, had his heart taken from his body by

the Archmage Szhaalin and hidden somewhere on the Arroyan continent.

Xyphus then went into seclusion in the caverns beneath the surface of Arroya, where his tears produced sword-shaped amulets of violet crystal, from whence comes Arroya's magic. Where he bled, the tribes of goblins evolved.

Then, only 30 years ago, a new conqueror, Das, was born. Das now rules all of the world surrounding Arroya, but his vast armies have been able to make no progress against the magic and the goblins of Xyphus in Arroya. That's where you come in.

Your mission and the mission of those who you will take on this perilous journey, is to find the demon lord Xyphus and put an end to his life and with it the life of his magic and his goblin protectors.

There are scattered forts and trading posts throughout Arroya where your company can rest, be healed and purchase supplies. There are three character races from which you can choose for yourself and the remainder of your party, which should be about four at a minimum. The races are elk, human, dwarf and it is a good idea to keep a good mixture of each in the party, for all three have different positive and negative attributes. Within these three races are two professions — fighter and spellcaster — from which to choose.

After choosing the characters and their race and professions, create a game disk from a blank disk, accomplished with several swappings of the master disk and the blank disk if you only have a one-drive system. After that time, the blank disk will be used each time you play *Xyphus* and all characters and progress on the mission will be saved to the disk each time a play session ends.

There are seven movement keys to give your characters on-screen mobility and the Control key, when used with any of the other seven, will move the entire party as a unit.

Combat takes place when two characters are side-by-side on the grid and attempt to move through an occupied square. A couple of special keys important to the game are the Rest & Heal key, which will put the character into a trance for 10 moves and allow a return to full strength and a healing of hit point damage; and the Purchase key, which will give a character's experience point total as well as make it possible to purchase supplies.

It is also possible to change the pace at which the game moves, putting quick thinking at more of a premium. There are several attack, hindrance and healing spells the characters can use as they build experience, if they are professional spellcasters.

There are over 50 types of creatures to encounter on this journey, and



XYPHUS (PENGUIN)

those lucky and skillful enough to win can try it again with one less party member. *Xyphus* is a game to which players can return often with great enjoyment. The continent of Arroya awaits.

(Rick Teverbaugh)

PERPLEXIAN CHALLENGER

Designed by Steven Luedders
Progressive Peripherals & Software,
1984/C-64/Disk/\$29.95

The chief justification for this first-person flying-and-shooting game is that the C-64 library has nothing else in this popular genre. It suffers by comparison with similar games for other systems, including *Star Raiders* (Atari/Atari computers), which is a four-year-old program.

The player uses the joystick (in port #1) to steer a fleet of four space fighters, available one at a time, while slugging it out with an assortment of alien ships. Pushing the action button fires two front-mounted guns on a converging trajectory. There is no sighting cursor or crosshairs.

Shields protect the player's craft from four bursts of enemy fire before a knock-out shot. The laser guns have an inexhaustible supply of ammo in versions #1 and #4, but need recharging in modes #2 and #3. The gamer obtains extra energy by catching the energy packets jetisoned by destroyed alien ships.

And that's pretty much it. The graphics are cute, but nothing stunning. So this isn't even a thin game in flashy dress. The extreme simplicity of *Perplexian Challenger* can be judged from the instruction folder, which is about the size of two 3" x 5" cards. It doesn't help that the rules writer felt compelled to pursue ponderously polysyllabic pedantry. This just isn't up to the level of all that purple prose.

(Arnie Katz)

PITFALL II: LOST CAVERNS

Activision, 1984/Atari/Cartridge/\$34.95

Despite the similarities suggested by the names, *Pitfall* and *Pitfall II: Lost Caverns* are not cut from the same cloth. Rather, the sequel is like a younger sibling that has benefited from the experiences of its older, more experienced brother or sister. The evolution in gameplay, particularly the absence of a timer and the "invulnerability" of the gamer's alter ego, add immeasurably to the satisfaction and enjoyment derived from playing *Lost Caverns*.

The objective is simple in this one-player game: guide Harry over, under, and around various obstacles until he finds his niece Rhonda, Quickclaw (a very nervous feline), and the Raj diamond. It also helps to pick up as many of the gold bars as possible.

Whether swimming the underground waterways or clambering about the many ladders, the animation is extremely smooth and realistic. To Activision's credit (and the delight of gamers), the Atari computer version is not a graphic clone of the 2600 release. The numerous creatures and background structures are much more detailed in the computer cart, as well they should be.

Harry prowls through the immense, multi-leveled remains of an ancient civilization as he tracks down the objects of his heart's desire. Along the way leaping frogs, electrifying eels, and bad news bats hinder his progress. Contact with any of these, or the other nasties, sends Harry back to the last "check-in station": crosses strategically located throughout the environs.

Since the points earned for pilfering the bullion are lost as your alter ego is spirited backwards, it is vital (smart too!) to touch base with all crosses encountered. This way the return trip won't be so long.



PITFALL II (ACTIVISION)

Musical interludes (multi-part harmony) liven up the pace whenever a gold brick is snatched. None of them are protected per se, it's just that the entire underworld is heavily populated, making uninterrupted travel a pipedream.

Color is plentiful and presented well in this continuation of the *Pitfall* saga. (One almost wonders if this will become a trilogy).

What's that I hear? Rhonda is calling Harry. Time to go — perhaps you'd like to join us. The search will be exciting, the dangers numerous, and the rewards even better. We'll float above the clouds in lighter than air balloons and uncover priceless ice before entering the next, more challenging chambers.

(Ted Salamone)

ZONE RANGER

Activision, 1984/Atari/Cartridge/\$34.95

The return of unbridled destruction! That could well be the subtitle for Activision's **Zone Ranger**, an outer space-oriented free-for-all that makes other melees look tame by comparison.

This version offers tremendous visual appeal because of the highly detailed, richly hued on-screen heroes and antagonists. Use of a jet black backdrop behind the multicolored characters adds even more impact. The view really is breathtaking!

Beyond the graphics there has to be a



ZONE RANGER (ACTIVISION)

solid, well-executed play-mechanic or no game is worth the sand it's coded on. Reports from survivors state that joystick control is precise, the multi-directional scrolling is so smooth that it's taken for granted, and that the two player option is a very welcome addition.

What the briefings don't mention are the transport black holes which warp the gamer's craft to other sectors and the temporary shields known as "Sky Jacks." The latter items are very helpful, since they provide a momentary respite from the many engines of destruction whirring, whizzing, and winging by at breakneck speeds.

Sector patrols fire energy bolts in the four main compass headings, debris clogs the spacelanes, and satellites track your ship relentlessly. Courageous captains must maneuver quickly while engaging rapid-fire weaponry. A ferocious hail of fire is all that stands between you and oblivion!

Special warp-holes advance players beyond the normal levels of difficulty, where the environment becomes even more hostile.

During any level of play, contacting the proper device teleports the vessel into a partitioned space corridor which holds treasures among its twisting, contorted thoroughfares. This zoned section of the game puts a premium on navigation, so it's best to bring a good joystick along for the ride.

Above all, remember two things: keep moving and keep firing. That advice is actually better than Greeley's "Go west young man" was so many years ago; especially for compugamers who are ready to become Zone Rangers. Hi-yo, away, type 2750 intergalactic space fighter!

(Ted Salamone)

FRED

Designed by Pedro Ruiz Quicksilva, 1984/

Commodore 64/Disk/\$14.95

Tombs are getting almost as common in computer software as dot-lined mazes.

Fred plunges the player into subterranean action in a search for the treasures buried in an Egyptian labyrinth.

Fearless Fred the Archaeologist has fallen down a shaft into the hidden resting place of the Pharaoh Tootiecarmoon in this multi-level jumping and climbing game with adventurous overtones. The player employs joystick or keyboard control to guide the raider of the lost tomb through an obstacle course of chasms, caves and perilous climbs.

A box located to the right of the main display shows the three objects which the archaeologist must collect before advancing to a more difficult maze. Once Fred collects the three necessary objects, he must detonate the bomb near the exit to blast it open. Other objects scattered throughout



FRED (QUICKSILVA)

each multi-screen playfield are worth bonus points (usually 10).

Fred can shoot roving vampires, mummies and ghosts with his pistol to increase the score. The gun has only six bullets, so the weapon is basically a defensive measure of last resort.

A rectangle in the status box monitors the life energy. It turns from red to yellow as collisions with monsters and contact with acid drops reduces the hero's power. Fred bites the dust when the block turns solid yellow.

Audio-visual effects in *Fred* are exceptional, though some may weary of hearing even the jauntiest rendition of the theme from "High Noon" repeated over and over during the course of the game. Well, you can always restore silence by hitting "F1." The cartoon graphics are attractive, though the game visuals seem somewhat at variance with the more refined artwork featured on the box.

Sketchy instructions are becoming as much a hallmark of British Invasion software as good musical scores. *Fred* is no exception to this lamentable trend toward fragmentary rules. Putting an outline of play right onto the disk is commendable, but the praise would be more wholehearted if the instructions had been completely correct. Only trial and error proved that hitting the action button fires the gun, a key fact somehow overlooked by the writer of the rules.

Nothing about this disk is especially revolutionary, but it is well-programmed and fun to play. Quicksilva continues to produce glossy treatments of popular game-genres, but American gamers may have to look for exhilarating originality from other sources.

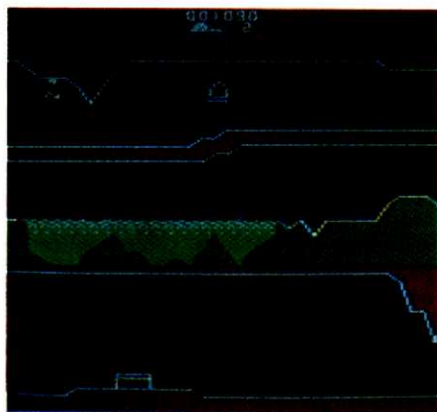
(Steve Davidson)

KILLER WATT

Designed by Anthony Crowther NET Software, 1984/

Commodore C-64/Disk

The novelty of this scrolling shoot-out lies more in its execution than in its con-



KILLER WATT (NET SOFTWARE)

cept. Like many recent titles crossing the Atlantic in the British Invasion, *Killer Watt* is a well-programmed version of a format that holds few surprises for veteran gamers.

The play pilots a cartoonish patrol vehicle through the danger-clogged passageways of a vast underground cavern complex. The ship must locate and blast the 12 green light bulbs without falling victim to carnivorous leaping fish, enemy flying men and bomb-toting mechanical birds. Once all the bulbs are destroyed, the craft can proceed to the end of the maze, where blowing the magic doorway allows entry into the next highest of the program's five levels.

"Well-programmed" is no mere phrase. From the thoughtfully constructed option screen to its fluid scrolling on a computer not particularly known for this type of action, *Killer Watt* is first-rate. It even loads in a relatively rapid 1.2 minutes, thanks to the publisher's Speedos (tm) system.

There's a good-humored quality about *Killer Watt*, with its graffitti-festooned catacombs and silly bulb-smashing mission, that will appeal to many. The overall light tone and emphasis on timing rather than speed makes it suitable for those who've outgrown deadly serious blasters but still want some to play something arcadish.

(Arnie Katz)

THE SCROLLS OF ABADON

Designed by Frank Cohen
Access Software, 1984/
Atari, C-64/Disk/\$34.95

Put succinctly, there is no excuse, in this day and age, for a piece of software this poorly conceived and executed.

Despite the exotic-sounding title, *Scrolls* is not an adventure, but a primitive action contest in which a joystick-controlled surrogate is maneuvered over a series of flat surfaces studded with tiny, hemispheric dots. The on-screen character must stomp out each of these mini-domes without

retracing his steps (the direction traveled is indicated by arrows which may only be re-crossed in the same direction), while avoiding the requisite roving monsters who've obviously wandered into this playfield from some computer game half-world infested with characters who always wanted to be Inky, Blinky, Pinky or Clyde.

Complete this none-too-challenging task and collect the reward — the titular 'scroll', which now allows players to defy the game's primary mechanic and move backwards over arrows simply by typing the request on the keyboard! This inexplicable development creates a situation heretofore unseen in even the most shabbily programmed games: *Scrolls* actually gets easier as play goes on!

All this nonsense is cloaked in a ludicrous attempt at providing a science-fantasy context. The studs are supposed to be gems, and the scenarios, according to a page of text that appears upon contact



SCROLLS OF ABADON (ACCESS)

with the scrolls, comprise some otherworldly twilight zone where an unseen wizard likes to banish people. *This is no excuse.*

As with some other Access releases, this game is produced with the C-64 version on one side of the disk and the Atari version on the flip side.

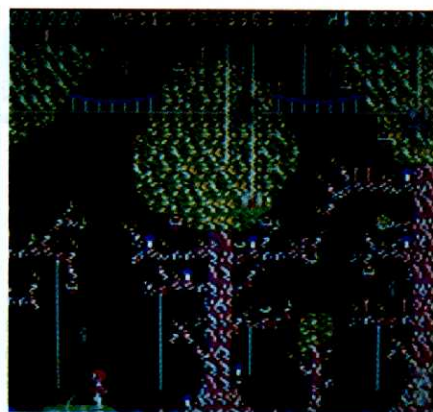
(Bill Kunkel)

CHILLER

Designed by David & Richard Darling
Mastertronic, 1984/
Commodore C-64/Disk

Running out of gas may be a time-honored ploy of lovesick romances, but it can backfire if the meter reads "empty" at the edge of a haunted forest. Using a typical

"A black humor approach to the supernatural."



CHILLER (MASTERTRONICS)

jump-and-climb joystick movement scheme, the hero must get through the forest, the movie theater, the ghetto and the graveyard before reaching the eerie mansion in which the hero's girlfriend is held captive.

Then the pair must make the even more dangerous trip back to the car. The computerist switches control back and forth between the man and the woman as needed to pick up the mystic crosses spotted around each playfield. (The hero must also sweep the five screens clear of crosses on the way to the haunted house, but the task is less complicated with only one character bouncing around the playfield.)

Since the on-screen heroes can safely fall any distance, the main factor limiting success is the energy level. Contact with ghouls, zombies and other nasties drains vitality, represented by a tri-colored bar directly above the playfield, which shortens as fatigue sets in. Running (as opposed to walking) and leaping also use energy. Eating mushrooms replenishes some power, unless they're debilitating toadstools.

The farfetched scenario may cause some smiles. Not only is there no attempt to justify collecting the crosses, but it's never explained how the "helpless" girl got all the way to the haunted house while the hero was left back at the car. The whole thing is so well executed, however, that the authors may be forgiven the naivete of their concept. You can stand a lot of silliness if the joystick is responsive, the goal challenging and the music sounds good.

Chiller doesn't quite succeed when it comes to evoking the creep-crawly mood one would expect from the disk's packaging and title page. This is a more black-humored approach to the supernatural, more Vincent Price than Bela Lugosi.

The program is well done, but only somewhat original. It features few elements which the experienced gamer has not encountered previously, though climbing and jumping action-quests with side perspective seldom present such a variety of playscreens.

(Steve Davidson)

ENTERTAINMENTS

FISHIES

Designed by Cognetics Corp.
Harper & Row, 1984/
Apple/48K Disk/\$14.95

Six species of watery life, plus a few additional unexpected sea dwellers, form a spectacular graphic demonstration when the Apple turns into an aquarium with this fishy program. It's a new way to enjoy a home computer, watching swimming swordtails, angelfish, goldfish, seahorses, tiger barbs and diamondfish.

There's very little for the computerist to do but sit back and watch the view. The well-drawn aquatic life swims back and forth, combining and recombining into new schools. Tap "F" on the keyboard to feed the fish, and they all excitedly swim toward the top of the screen to gather the food. "T" taps on the glass, and some curious types spin on their fins to gaze out of the tank at the computerist.

Touching the spacebar produces some whimsical events. A submarine sails across the screen; an aquaman swims through the brine; or a cute blond mermaid splashes by.

That's it. You can't shoot them; you can't catch them; there's nothing to do but watch, and except for a few bars of music on the title page, there's no sound. A new idea for computer entertainment, passivity hasn't yet become a big trend in computer software, but we'll probably see more non-interactive demonstrations in the future, as computerists explore new ways to enjoy their equipment. **Fishies** presents users

with something really attractive to look at, a sort of living wallpaper.

The tank is filled with stately sunken columns, underwater ferns and rocks, and the silent blue and orange fish gliding back and forth make this demonstration exceptionally pretty, pleasant to use, and even moderately tranquilizing to watch.

(Joyce Worley)

PLANTIN' PAL

Designed by Home & Hobby
K-tel Software, 1984/Apple/
48K Disk/\$24.99

The snow's still deep when armchair gardeners start thinking about Spring planting. Up until now, these musings were fed only by seed catalogs and bucolic ambition; now there's a computer program to help make the dreams more tangible. Whether the gardening plans are ever realized, or if they remain fertile only in imagination, both the planning and the crop will be better if they're computerized.

Plantin' Pal helps the gardener with every detail. First the computer draws a diagram of the plot, up to 60 by 36 feet, using the coordinates the gardener enters, and blocks out any unplatable areas. Then pick the plants from a list of 40 vegetables, read tips that tell what kind of weather suits the plant, its space and water needs, best planting time and days to maturity, how many plants are needed to feed one person, soil type and care, pests and diseases that affect this species, watering tips

and fertilizing needs.

Next **Plantin' Pal** arranges the garden according to the sunlight needs of each plant. The computer lays out double-width rows running North to South, and helps choose the amount to plant depending on whether the vegetable is to be used fresh, or fresh and stored, and how many people will eat it. The gardener can accept or reject these recommendations to tailor-make the layout (so there'll be more melons and less spinach, for example!).

As the gardener determines these choices, **Plantin' Pal** draws each vegetable on the diagram until the plot is filled. Finally, the computerist enters the name of his state, and the area of the state the garden is in. The computer provides a planting schedule for that particular region, based on the average frost dates. The entire thing, including the diagram, tips and planting instructions, can be printed out, to use when it's time to plant.

Plantin' Pal works as a time-saving helper, certain to increase the harvest for serious gardeners. Or, if the dreaming is more fun than the work, it's a putterer's delight. The only thing it lacks are the bright pictures from the seed packets.

The program is also available for C-64, IBM-PC and PCjr computers.

(Joyce Worley)

MICROZINE, VOL. 1, #6

Designed by Information Technology
Design Associates Dan Klassen, Editor
Scholastic, 1984/Apple/48K Disk/\$39.95

Microzine is a magazine on disk for kids 10 and over, containing stories, activities and news that's specially tailored for young readers. Available individually or by subscription, **Microzine** has new issues bi-monthly, each with a fresh potpourri of material.

This issue contains four separate entertainments, along with an electronic Table of Contents, What's Next (a preview of the next **Microzine**), and a section called Computer Stuff for initializing disks and changing drive setups.

'Fossils Alive!' a Twistaplot story by Andrew Ragan, lets young paleontologists find more than just old bones! Each decision point offers a choice of directions and the story branches accordingly as the search meanders through a forest and two caves.

'Olympic News' is a special news section containing a history of the Olympics, both ancient and modern, listings of great Olympic athletes, Olympic records (which can be updated as new ones are set), a section with a simple word processor to help the sports fan keep track and write about Olympic athletes, and a special Olympics trivia quiz.

'Sound Off!' has 40 sound effects on



FISHIES (HARPER & ROW)

disk to listen to, record and add to plays and skits, or use as background for stories. They include such diverse noises as a spaceship taking off, door buzzers, telephones, an elephant bellowing, and even short musical themes, like 'Taps', 'Charge', 'Reveille', and a dirge.

A 'Free Store' completes the offerings in this issue, with 139 items listed, 102 of which are free, and none costing more than \$2. The data base is divided by subject (such as Earth Science, Outer Space and Health), type (posters, stickers, comic books, activity kits, etc.) and cost (free and not free), and the computer gives exact instructions to youthful shoppers on how to order each item.

Microzine is menu-driven and simple to operate. Best of all it contains enough variety to provide hours of amusement for young computerists, as they browse through its electronic pages.

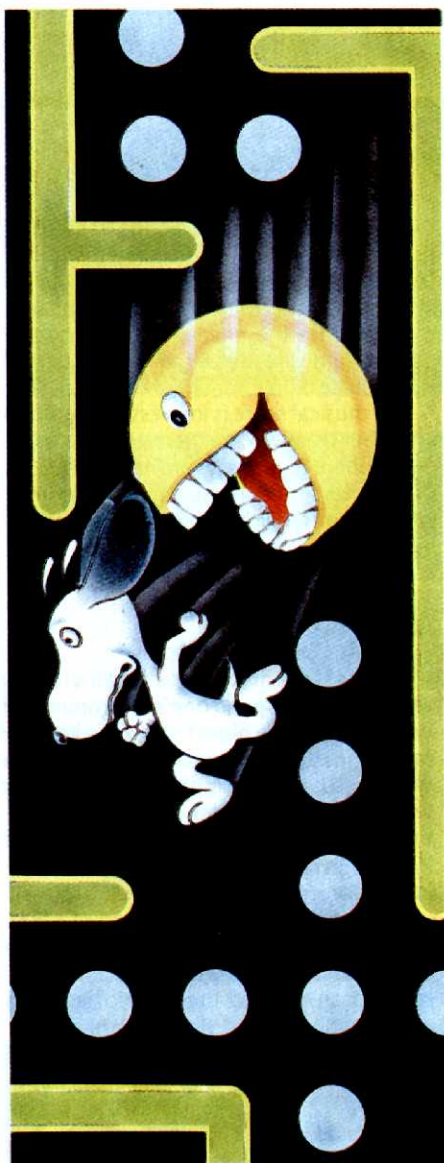
(Joyce Worley)

PEANUTS MAZE MARATHON

Random House, 1984/
Apple 48K Disk/\$39.95

Snoopy, Lucy, Charlie Brown and all the Peanuts gang star in this maze-maker for kids from 4 to 8. The computer randomly generates mazes, each sparked by a pair of Peanut cartoons, for players to guide a cursor through using joystick or keyboard control.

Every maze is different, and although none are difficult enough to challenge adult fans of this type of entertainment, they do have a range of skill levels. Side one of the disk is suitable for the youngest computerists, and side two features slightly more complex mazes. Solitaire gamers choose the time limit, and race the clock to find a path from beginning to end of the maze. The cartoon then animates, in a delightful visual reward. The characters look like Charles Schultz drew them personally, they're that good, thanks to some graphics magic by Mark Pelczarski and David Lubar, using Penguin Graphics System II. They're all cheerful and bright, and some are



downright humorous. An example: Charlie Brown's kite string is tangled, and the mazer has to find the path in order to get it straight. When the cursor is guided successfully to the end, the kite rises to the sky, revealing Snoopy clinging grimly to its tail.

This unusual entertainment helps kids develop better motor and coordination skills. But more important, it's a lot of fun. Even the older kids will like high-speed contests, playing beat-the-clock to see who's fastest in racing through the mazes, and enjoying the handsome cartoons of the world's favorite comic strip characters.

(Joyce Worley)

COCO-NOTES

Designed by The Dovetail Group
CBS Software, 1984/Atari/
Cartridge/\$29.95

A twitch of the joystick creates music, thanks to the help of the built-in bebop-

pers. The Jazz Scats, a trio of animated jivesters, add the accompaniment, then dance along to finished compositions that are never the same twice. Coco-Note Isle forms a tropical background for these hijinks.

The setting is a tranquil beach. Two of the Jazz Scats, Wahoo and Swivel Hips, luxuriate under the palms, as Mr. Bassman fishes for musical notes floating in the sea. The joystick moves the fishing line over the bobbing tones, causing each to sound the note it represents. Hook the tones, and reel them in. The notes fly into the coconut trees to form a line of music, then the three animated musicians play back the composition adding accompaniment to make it sound professional. It's impossible to sound bad with these three backup artists, who know a large variety of riffs and beats, ranging from country and rock to weird, so fishing musicians can fine-tune their compositions.

There's also a game section in this entertainment program. If joystick musicians start nodding, the 'Beat The Clam' game should wake them up again. Mr. Clam is gobbling notes as fast as he can, so Mr. Bassman has to fish fast to complete the line of music in the trees. But Wahoo, sleeping under the palms, sends such a string of snore-Z's into the branches that they knock notes back into the water, and must be caught again to keep the clam from clamping onto them.

The graphics are a little crude and lack detail, and the play action is simply running the line over the notes, then using the firing button to hook the catch. The real virtuoso of the program is in the musical accompaniment. The Jazz Scats draw on the musicianship of Gerri Brioso, Richard and Paul Freitas, the Dovetail Group, to create and tirelessly perform high-quality compositions built around the bare-bones melodies written by the joystick jockey.

Coco-Notes is very easy to use, and requires absolutely no prior musical knowledge on the gamer's part; the Jazz Scats can provide all that's needed in that department!

(Joyce Worley)



PEANUTS MAZE MARATHON (RANDOM HOUSE)



COCO-NOTES (CBS)

TRANSLATIONS

ZENJI

Designed by Matt Hubbard
Activision, 1984/Atari/Cartridge/\$34.95

Zenji merges the mysteries of the East with the newest wonder of the West — microcomputers. Based on the simple premise of connecting all the video viaducts with the "one true source of energy," Zenji is a captivating, truly entertaining offering.

Instead of sliding puzzle pieces around a pixel canvas as in **Happy Trails** or **Locomotion**, compugamers rotate sections of the passageways until they form an unbroken network through which the energy source flows uninterrupted. Logic, superfast reflexes, and intuition are needed to get through the ever more complex, randomly generated settings.

Represented on-screen as a multi-colored face, one or two players use joysticks to maneuver to the center of a section, where a quick press of the action button spins that particular segment in the direction designated by the joystick.

Along the way bonus counters appear in isolated areas of the puzzle. Run over them before they disappear and you're on the way to a higher plane — to Zenji itself! Sounds simple, doesn't it? Well, it's not.

Traveling the corridors are Flames of Desire and their equally deadly offspring,

fleet-footed Sparks. Both are highly destructive.

As abstract as Zenji is in appearance (the box art and wording are an ambiguous tour de force), the play-mechanic is straightforward. Move fast to complete a round before the time expires, killing the current game life; avoid the nasties; garner the bonuses.

The musical score is impressive, even for an Atari. A real Eastern theme pervades the atmosphere courtesy of Matt Hubbard, the professional musician/programmer who's responsible for this offbeat masterpiece.

(Ted Salamone)

QIX

Atarisoft, 1984/C-64/Disk

Drawing lines may not sound like a terribly exciting way to spend one's afternoon, but with Qix it is. The object is to draw lines, or rather boxes, while avoiding the Qix, a whirling bunch of high-resolution lines which kills the player if it touches an unfinished shape, and the Spark, only fatal if it comes in contact with the player's drawing cursor.

The gamer controls the motion of a tiny, diamond-shaped cursor that leaves a trail behind it. Once a shape is completed, that is, once an area of the screen has been

completely enclosed, the player gets points according to how much of the screen has been covered. When over 75% of the screen surface is enclosed, the screen clears, a bonus is given and the game continues at a faster pace.

Qix is a marvelous achievement for the Commodore 64, especially in its use of high-resolution graphics. All of the game elements are drawn in the computer's high resolution mode, and the spinning Qix is very impressive. In addition, this game moves quickly — the animation is smooth, and even the routine that fills enclosed spaces with color works relatively swiftly. It is a pity that sound effects are so limited, considering the Commodore 64's capabilities, but this is a minor point.

Qix is fast-paced, enjoyable game that requires quick thinking and some degree of strategy. These days, what more can one ask?

(Charles Ar dai)

BEST OF BRODERBUND

Coleco, 1984/Adam/
Digital Data Pack/\$29.95

This could've been more aptly named "Oldies But Goodies From Broderbund." In the time it took to bring this licensing deal home to Adam owners, Broderbund has released another slew of terrific games.

Still, **Best of Broderbund** packs two excellent Broderbund titles, the classic **Choplifter!** and the lesser-known **A.E.**, on one Adam-compatible tape. Both games are quite good in their new incarnations, although they show some relatively major changes from the original versions.

Choplifter! casts the player as a helicopter pilot, whose mission is to penetrate into the territory of the evil Bungeling Empire and rescue the 64 hostages. While graphics and the control scheme are quite similar to the Apple edition, gravity plays a larger role in controlling the 'copter in this version. It's difficult to simply hover in one part of the sky, shooting down at tanks which threaten the hostages, without some compensating for the weight of the chopper.

The second major difference is that the dreaded flying mines, which menace pilots after they complete their second sortie, have been eliminated entirely from the game, leaving only land-based tanks and jet fighters to tangle with.

In **A.E.**, the original graphics have been colorfully dressed up for the Adam. The plot is the same: using a tank that moves horizontally across the bottom of the screen, the player shoots up a twisting, snakelike squad of flying meanies. While this game's play-mechanic is simple by today's standards, it still provides an entertaining test of hand-eye coordination. To keep the game from getting too



ZENJI (ACTIVISION)

monotonous, three different backgrounds are provided.

Considering the age of both of these titles, the games hold up very well, especially *Choplifter!*, with its unusual plot-line. Adam owners should enjoy adding both of these games to the family software library.

(Tracie Forman)

MURDER BY THE DOZEN

CBS Software, 1984/Macintosh/
Disk/\$44.95

Unlike other mystery disks which have only one murder to solve, *Murder By the Dozen* lets players choose from 12 mysteries for which evidence and the guilty party must be found, and a motive established. When interrogating suspects, players don't get to type in questions they want to ask. Instead, all questions are predetermined and only answers are given. Each answer is number coded, and the numbers are listed in the clues book. This means you have to do a lot of page flipping to find out (a) what you asked and (b) what your suspect knows about the death. Sometimes as many as five numbered answers to questions you haven't asked can appear at one time. This is a lot of looking up and very little action.

As many as four players can participate in the investigation, but because it is a competitive game, you can't really play together. As each player's turn comes up, opponents have to leave the room or else benefit from what is discovered.

Although computer detectives can travel from one location to another and talk to different suspects, you never see them. In fact you never see anything except a very dull aerial view of the town in which all 12 murders take place. This town appears to be a pretty dead burg, so it isn't surprising the inhabitants are committing murders by the dozen. There's nothing else to do!

In addition to the clues book, there's also a cunningly encrypted solutions book. The user has to hold a sheet of red acetate over any page in order to "decode" the hints. It seems that there's an awful lot of extracurricular reading that has to be done for a computer game. Perhaps *Murder By the Dozen's* biggest problem is that it doesn't really utilize the computer at all.

(Randi Hacker)

SPACE SHUTTLE

Designed by Steve Kitchen
Activision, 1984/Atari/ Cartridge/\$34.95

When *Space Shuttle* came out for the 2600 it was hailed as a major breakthrough, stretching that machine's meager memory capacity to, and metaphysically speaking, beyond its limits. Use of the dif-



SPACE SHUTTLE (ACTIVISION)

ficulty level and color selection switches give the game a true cockpit feel with real "hands-on" control.

As tough an act to follow as the introductory version was, the computer cart fills its forerunner's footsteps well. The keyboard replaces the toggle switches, providing a somewhat watered down realism. Still, it works remarkably well. Need a status report? Press a specific key or hit the space bar repeatedly for a rundown of the most important items. The control scheme is very thorough, yet entertaining and captivating. (Don't let the youngsters read this, but it's darn educational too!)

From blastoff to touchdown at the desert landing site, this journey is a memorable one. Gamers get to choose from three levels of simulation. The first is primarily a training mission, in which the pilot is responsible for very little. The on-screen graphs and readouts aren't used since docking with the satellite and landing on the strip are all you control, in a rather fundamental way.

Game numbers two and three allow players more latitude. Control of the three axes, X (forward/backwards), Y (left or right), and Z (vertical miles from earth) is a full-time job in its own right. Add the need to monitor the real-time indicator panel and effect a rendezvous with the orbiting bird and you've got a real handful to contend with.

Re-entry is accomplished according to NASA procedures, just like everything else this game has to offer. The burnoff is depicted as white hot flashes seen through the fore cockpit windows. Loss of data on the readouts further enhances the impres-

sion of true atmospheric tile burner. All the details mesh to create a challenging adventure which manages to be slightly different each time.

The visuals are based on those of the 2600 (with little change); the audio effects are minimal, to say the least. Except for the thunder of the main engines at liftoff and a few whispers from the smaller thrusters the soundtrack consists of a few meager bleeps.

Despite these shortcomings, this translation of *Space Shuttle* is an absorbing, extraordinary game. Take the dare, find out if you've got the right stuff.

(Ted Salamone)

ONE-ON-ONE

Designed by Eric Hammond
Electronic Arts, 1984/

IBM PCjr/128k disk/\$40.00

One of the things that surprises newcomers to computer entertainment is the often baffling lack of correlation between memory and quality. For example, when the Arkie-winning (Electronic Game of the Year) EA's *One-on-One* is translated from a 48k program to a 128k, the very least one expects is a reprise of all the elements from the earlier software.

Not so. Oh, this 128k PCjr version is almost as good as, say, the Atari version, but why almost, for heaven's sake? The play-action, featuring the now-legendary simulation of Larry Bird doing the halfcourt honors against the sky-dancing Doctor J, is a faithful re-creation of previous incarnations (in spite of the annoying split-second freeze whenever the backboard is

splintered). Likewise, the graphics duplicate earlier versions, but where this translation falls down is in the audio. And does it ever fall down! The realistic patter of roundball on hardwood is gone, replaced with a crude clicking; the swish of the ball passing through the basket is gone altogether; and the cheering of the crowd sounds like the space shuttle taking off!

PCjr owners will almost certainly be so delighted with this game's multitude of strong points that they will overlook any deficiencies in the sound effects. Nonethe-

less, as someone whose major problem with the previous versions was the use of a single action button to initiate both turn-arounds and shots on net, I was gravely disappointed to find that, instead of assigning these functions to the dual trigger controls available on PCjr joysticks, the second button is used solely to call time-outs.

In short, *One-on-One* remains a classic piece of software, but it's a shame to see owners of higher-powered hardware being short-changed.

(Bill Kunkel)

essentials of football, the ebb and flow, are recreated perfectly.

So psyche yourself up, punch out your locker and grab a joystick — and don't worry about those "excessive displays", because this *Touchdown* deserves them.

(Bill Kunkel)

LEAD PACK MARATHON

Lead Pack Software, 1984/
Apple II/48K Disk

This one- or two-player contest appears to be an accurate statistical simulation of world-class marathoning, but it falls short as a game. Not much happens during the course of play, and it doesn't happen very fast, either.

The interaction is straightforward. At the start, and at each mile-point thereafter, the player types in the time in which he desires to run the next one-mile segment. (The computer guides four non-player runners in the solitaire version, three if two humans participate.)

The speed affects the runner's endurance. A series of sub-5:00 miles will tire the on-screen athlete, while switching to a slower pace revives him. Endurance is charted on a range from +2 to -10. The runner must quit the race the instant endurance drops off the bottom of the scale.

Once the intended time is entered, the player must wait while the program returns to the disk for data. This certainly slows the progress of an already leisurely contest.

Illustrations generated with Penguin's *Graphics Magician* provide a visual representation of what happened during the

ELECTRONIC PRESSBOX

TOUCHDOWN

Designed by Mark D. Klein,
Michael J. Becker & Wilfredo D. Aguilar
Imagic for IBM, 1984/
IBM PCjr/128K Disk/\$30.00

The NFL may have banned "excessive displays", as it has dubbed touchdown dances in the end zone, but don't try to stop this computer wide-out from dancing with joy over the reception of IBM/Imagic's *Touchdown Football* for the PCjr.

There are plenty of gridiron simulations around, sure, but none of them belong on the same field as this extraordinary piece of software. With the exception of fumbles — which can, at best, be arbitrarily inserted into computer simulations — no major element of the sport is missing from this program. Passes, runs, audibles at the line of scrimmage, punts, field goals, PATs, prevent defenses, blitzes — the gamut of gridiron glory has been woven with a sorcerer's skill into a game so good you may prefer it to watching all but the very best of NFL showdowns.

The remarkable graphics present the first successful attempt at depicting a football field in three-quarter perspective. Previous entries have invariably opted for overhead views, in order to keep the game player(s) from being hopelessly confused each time the offensive and defensive lines made contact. It takes excellent visuals to keep the inevitable tangle of bodies from melting into a violent stew. But, then, excellent visuals are among *Touchdown Football's* myriad assets.

Options include head-to-head, player vs. computer and demo versions, with five, ten and fifteen minute quarters.

The only downside is the game's scrolling technique, which seems slightly ragged and abrupt, occasionally forcing the ac-

tion into the corners of the monitor, or even slightly off-screen altogether. Fortunately, on most occasions, the hash marks serve as adequate guides to on-field position. Nonetheless, the game's otherwise sterling nature makes this flaw all the more prominent, especially on punt returns, where the "camera" swerves so quickly the player may actually become dizzy.

Touchdown Football is, indeed, a game that captures the nuances as well as the broad outline of the sport it simulates. Amid the wealth of techno-wizardry — the game clock, the blockers, the field goals which are anything but perfunctory — the



TOUCHDOWN (IMAGIC)



LEAD PACK MARATHON (LEAD PACK)

just-completed mile segment. The animation of the runners is somewhat stiff and is prone to flicker. The backgrounds are static and somewhat sparse. The designer has missed the chance to include some nice touches in this area. For instance, animating the scene in which the runners pass the water station would've been a pleasant bonus.

The last 1.2 miles are run under somewhat different rules. After flipping the disk, the player must enter end-of-race strategy every 0.2 mile. Speed is largely determined by the endurance rating at the 25-mile mark. The player also has the option of

running at this expected pace, or trying to kick home faster to eke out victory in a closely bunched field. On the negative side, resorting to the finishing kick greatly increases the chance that the runner will "tie up" and blow the victory.

The idea that tennis buffs will be the best audience for computer tennis games and so forth is overly literal, but it might be apt in this case. Few computerists as sedentary as this reviewer will get much out of **Lead Pack Marathon**. On the other hand, this could prove reasonably diverting for those who already enjoy watching — and running — distance races. (Steve Davidson)

PLAYING IT SMART

NUMBER BUILDER

Designed by Applied Systems Knowledge, Ltd.

Commodore, 1984/C-64/Disk/\$29.95

Kids man a worker on a hard hat project in this math game for ages 8-13. Using joystick or keyboard control, computerists steer a worker around a construction site, collecting numbers to reach a designated total. During play, gamers must compute sums quickly by adding, subtracting, multiplying and dividing a work number, until they reach the goal set by the computer.

Number Builder uses many of the features of a climbing game to turn this mathematical skill builder into a strategy

test. The screen displays a target number, and the computerist has to try to build (or reduce) a work number to that level. To do this, the workman must travel around the job site, up and down ladders and over steel girders, picking up number and operation blocks until the total is correct. The little man jumps up and down with glee as a word balloon reads "Got it!", then he strides manfully off the screen.

There are twelve skill levels and four speeds. The first round starts with a work number between 1-10, and uses only addition and subtraction operation blocks, so it's easy for junior mathematicians to reach their goals. Starting at level four, multi-

plication and division blocks are included, and the strategy gets a little tougher. To complicate matters, the floor has holes in it in the upper skill levels, and the construction worker has to avoid these pitfalls as he scampers around the playground.

The charming graphics make this game a pleasure to play. The workmen are cute little guys in blue pants, red shirts and hats, and each has a perky stride as he bounces along the steel girders. To keep track of time on each level, a paint bucket is hoisted from the bottom to top of the screen; if the problem is unsolved when it reaches the roof, the paint spills all over the screen to end that round. When the gamer completes a series of three problems on one level, the scene alters. A single worker constructs the number of the next level, then coins fall from a cashier's booth to reward his efforts.

It's fairly unusual for an arithmetic tutor to have the added asset of being interesting to play, but **Number Builder** accomplishes this elusive goal. It's fun to race the worker up and down the ladder collecting number blocks, and that should keep students coming back for more rounds. Applied Systems Knowledge has done a good job here in combining instructive drills with clever graphics and simple play mechanics to produce an educational game that kids (and their parents!) will actually enjoy.

(Joyce Worley)

ROLL CALL USA

Designed by John P. Gabbard

Creative, 1984/C-64/Disk/\$14.95

A computerized rendition of 'The Star Spangled Banner' starts this geography/history lesson, then five flash-card quizzes test the learner's knowledge of the USA in



ROLL CALL USA (CREATIVE)

question and answer games suitable for the entire family.

There are four separate test routines, covering state capitals, the major industries of each state, the largest non-capital city in each state, and the date each state joined the Union. A fifth Potpourri Quiz randomly mixes these four subjects.

All the games work alike. First the screen

displays a map of the nation, with one flashing state. Then the trivia player types the name of the state, and answers a question. Correct responses are greeted with a cheery tune, and wrong answers get a dirge. Up to four players can compete, and the scoreboard tracks not only the number of questions answered correctly, but the percentage of right responses in each category, helping pinpoint areas where additional study is needed.

The speed of these geography trivia tests is player controlled. The gamer can keep them slow with no time limits, or choose a Flash Test that calls for quick recognition of the state when it's displayed on screen.

Although the quizzes test knowledge of the states in a trivia game atmosphere, it's a shame the program doesn't provide a way for users to study the facts before the games begin. But **Roll Call USA** does give the correct answers to all missed questions, so gamers are bound to learn these geography and history lessons during the course of play.

(Joyce Worley)

TIME ZONE AND THE WORD BIRD

Designed by Jill Golick

International Publishing & Software,
1984/C-64/Disk/\$29.95 each

These two programs, both part of the Discovery Reading Works library, help kids from 6 to 12 get a handle on reading skills while they learn specific concepts that often cause problems to youngsters. Each features attractive but simple cartoons illustrating events, then requires the child

to describe what happened by filling blanks in a sentence.

Word Bird focuses on the spatial relationships of different objects while encouraging kids to read carefully for precise understanding. To do this, it uses similar-appearing words, like Cave and Castle, Fish and Five, Cloud and Clock, to help young readers learn not to guess words from only the first letter; and spatial concepts like Beside, Behind, In, On, Next To and Under. The activities also bear down on the difference between right and left. First a cartoon unfolds; for example, a key falls from the sky and lands beside a coconut tree on the beach. A sample sentence might say 'The key fell behind the tree,' and the child decides if this is true or false. The next activity is a fill-in-the-blank offering multiple choices, for example, 'The key fell — the tree.' The third activity adds nouns to the mix, and a fill-in-the-blank sentence might read, 'The — fell — the — !' In more advanced lessons, the word Not randomly appears, changing the meaning of the sentence.

Time Zone uses the same style to teach the concepts of time. Some of the nouns and verbs used to form the pictures are Pail, Key, Bird, Rabbit, Volcano, Hopped, Jumped, Rolled, Exploded, Erupted and Flashed. The temporal vocabulary explores the differences between Before, After, First, But First, And Then, focusing children's attention on sequencing. First an event is brought to life in cartoon, then a sentence describes what happened. For example, a large egg breaks; then a cartoon sun slowly sets against a tranquil landscape. The sentence might read, 'An egg cracked, — the sun set,' and the

choices are Then and But First.

Both programs present sentences one at a time, so the reading experience is not overwhelming for beginners. The play mechanics are simple enough for anyone. Just move a box around the correct response, using either joystick or keyboard control. (*Word Bird* can only be operated with joystick.)

Word Bird and *Time Zone* are also available for Apple, Atari and TRS-80 computers.

(Joyce Worley)

CELL DEFENSE

HesWare, 1984/C-64/

Disk/\$29.95

According to the documentation **Cell Defense** "simulates the spread of virus through the human body, and the player controls the immune system to stop the spread of disease." The truth of the matter is that *Cell Defense* is little more than a beefed-up version of the gobble-the-monsters phase of **Pac-Man**. And not too beefed up at that. In fact, *Cell Defense* has so little substance that one must wonder why it was ever released.

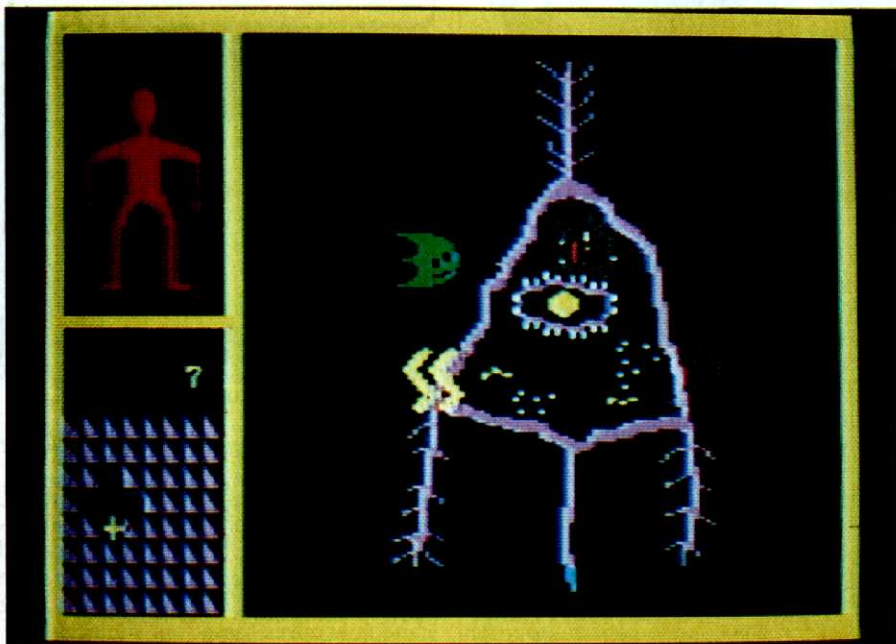
Cell Defense is a science tutorial, teaching players about the human body's defense systems. It does this by filling up to 64 cells with deadly bug-shaped viruses and asking gamers to destroy them, by either running over them with an umbrella-shaped macrophage or blowing up entire cells with explosive lymphocytes. There are plenty of both types of defense mechanisms in stock, so curing the organism — the ultimate objective — involves no more 'science' than the ability to choose between gobbling or exploding the offending viruses.

There are other elements in the game too, like antibodies which are meant to protect the bloodstream, and safety lymphocytes to stand guard over still-healthy cells. For the most part, though, these can be ignored without fear of adverse repercussions. True, a player who wants to derive the full educational benefit should make use of these secondary mechanisms, but only the most zealous would plan a strategy with them.

For that matter, there is little need to plan any strategy whatsoever. Chasing viruses with macrophages is the simplest way to play. The only problem is that chasing viruses isn't loads of fun, and, for that matter, isn't especially educational either.

There are plenty of both types of defense mechanisms in stock, so curing the organism — which is the ultimate objective — involves not so much "science" as the ability to choose between gobbling or exploding the offending viruses.

(Charles Ardai)



CELL DEFENSE (HES)

MONKEY ACADEMY

Coleco, 1984/Adam,
ColecoVision/Cartridge/\$25.00

Apes teach arithmetic in **Monkey Academy**. Unfortunately, the focus is on the jungle-motif climbing game, rather than on the educational aspect. The result is a disappointing attempt at using the computer to teach math to kids.

The player controls one of a pair of small monkeys whose job it is to fill in the missing spaces in math problems situated on the upper right side of the screen. The problem may read '4 x 12 = _' with the player required to fill in the missing digit. The number, along with an assortment of incorrect possible replacements, is hidden under one of the numerous shades that are scattered around the various levels of the screen. Once the player has located the proper answer (by an arduous trial-and-error process of checking under each and every shade until the right number is found), he or she must pick it up and pass it to the partner monkey at the top of the screen, who then drops it into the equation.

To make the game a little more interesting, every so often a deadly crab prances across the screen, mowing down anything in its path. The player can either avoid the creature or hit it with one of four pieces of fruit placed in fixed locations around the screen.

The sad thing about *Monkey Academy* is that the rather dull process of "bonking the crab" is more interesting than the rest of the game. Theoretically, this game should reinforce basic math skills (the player has a choice between four types of problems at four levels of difficulty), but it is simply not enjoyable enough to hold a child's interest past the first session. If only the programmers had spent more time making the educational part of the game entertaining, and less time working out the complex procedures for making a "super jump" and tossing pears at a meandering crab, *Monkey Academy* might have succeeded. As it is, it does not.

(Charles Ardai)

ROMPER ROOM'S I LOVE MY ALPHABET

Designed by Fred Tedsen,
Lauren Elliot & Ted Elliot
First Star, 1984/Atari/Disk/\$29.95

Romper Room has entertained and instructed the junior league with on-the-air antics for over 30 years in a T.V. program for pre-schoolers. Now it has inspired a program to help tots learn their letters.

There are four levels of play. 'Watch The Letters' is a demonstration requiring no user participation, so it's best for very young children, ages 2 to 4. Max, a lovable



ROMPER ROOM'S I LOVE MY ALPHABET (FIRST STAR)

smiling gold ball with blue eyes, rosy cheeks, perky antenna, and two over-sized feet, shows each letter in upper and lower case while depicting its location on the computer keyboard. Then Max acts out an action word to illustrate each letter, as a simple sentence describes what he's doing, like "Max goes for a walk but he'll be right back" as the cuddly ball tromps off, then back onto the screen.

'Press A Letter' is for slightly older kids who can interact with the computer. Touching any letter produces the display and illustrative action. 'Find The Letter' challenges the child to match the letter Max selects. The final entertainment is for kids 5-7 after they've learned all of Max'

routines. Max performs and the computerist must recognize what word Max is illustrating, then press the correct letter.

The simple graphics are compellingly cheerful. Max performs on a curtain-surrounding stage against a black background, and the on-screen text is kept simple, with bright yellow block letters that are easy for new readers to recognize. His acting ability may never win any Academy Awards, but it's sure to put a lot of smiles on the faces of the young learners his antics are designed to please.

Romper Room's I Love My Alphabet is also available for Apple and Commodore 64 computers.

(Joyce Worley)

MULTIGAMING

TRIVIA FEVER

Professional Software, 1984/
C-64 Disk/\$39.95

Trivia has become a national mania, so it's not too surprising that the craze has been extended to computer gaming. Joy-stick jockies who once spent their computer time battling aliens are now getting interested in other entertainments; and all-age, family trivia contests have a lot to offer, especially when used in social settings.

Trivia Fever can be played by up to eight individuals or teams, or solitaire against the computer. In either case, players choose five out of seven possible categories, de-

cide how many questions must be answered to complete each category, set the difficulty level and time limits, then the computer takes care of the rest.

When several people compete, one takes the role of Game Master, to manage the computer keyboard, moderate disputes, set handicaps, disqualify any recurring questions, and in general manage the human players. There are three ways to handicap expert players to equalize skills, either by setting lower time limits, higher point level requirements, or having the computer randomly select the five categories, instead of letting the champ pick his/her favorite subjects. Then the

player chooses level 1, 2 or 3 questions, which are scored accordingly.

Once the question appears, the clock counts down until the player is ready to answer, or until time runs out. Questions are answered verbally; then the correct response is displayed on-screen. The computer inquires, "Was the correct answer given?" If so, the computer adds the appropriate points to that player's tally.

After answering the prescribed number of questions in any category, there's a Category Completion Question. After all five categories are completed, a Game Winning Question finishes the competition.

The questions, typical of most trivia games, range from easy to quite difficult, and cover Science & Technology, Geography, History, Sports, Films & Entertainment, Famous People, and Nature & Animals. An easy game between four people runs 20-30 minutes, but can be extended by requiring more correct responses in each category to complete the game.

There are no graphics, just words against a black background, framed by yellow borders. This rather plain presentation strobos and flashes when it's time for Category Completion Questions.

Trivia Fever, for some inexplicable reason, is actually playable without a computer. Although the game is completely self-contained on disk, it comes with a question and answer book, tally sheets, and a spinner to choose the categories, for those times when gamers want to go primitive and turn off the computer. But not many players will choose this option, as long as there's a microprocessor available, to take the labor out of play by managing all the details.

Trivia Fever is also available for Apple, IBM PC, PCjr, Macintosh and TRS-80 computers.

(Joyce Worley)

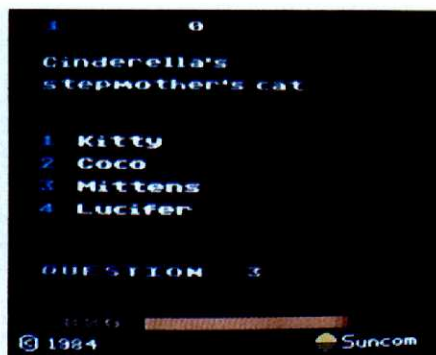
P.Q: PARTY QUIZ

Suncom, 1984/Atari, C-64/Disk

One of the first games from a company previously best-known as a controller manufacturer, P.Q. capitalizes on Suncom's technical expertise by including a special control pad that lets up to four players compete simultaneously.

This trivia contest is primarily aimed at baby-boomers, so a lot of questions are about popular TV shows like "Star Trek", though it tosses a few real curveballs (what is the area code for Spokane, Washington, anyway?). The questions are easy enough to be accessible, yet still test the mettle of any real trivia fan.

Each player is assigned one of the four controllers, which plug into a special jack connected to the computer's joystick



PQ: PARTY QUIZ (SUNCOM)

ports. The whole thing snaps together in seconds, as easily as plugging a telephone into a wall jack. The controllers are each equipped with four buttons, which are pressed to respond to the multiple choice questions that appear on the screen.

As soon as a question appears on-screen, the timer bar at the bottom begins ticking away. Players compete with each other to press the button that corresponds with the correct answer. Each player gets only one chance per question, so they have to make it count!

As each question flashes on the screen, the player is faced with a tough dilemma: to make a guess and hope the odds are with them (of course, if they're wrong, they're out of the running for this question), or to take their time, read the ques-

tion thoroughly, and decide on the right answer (this gives opponents the chance to answer first). Better hurry, though, 'cause time is running out! The number of seconds each question is shown is adjustable before the start of the game. But the more time a player takes to guess correctly, the fewer bonus points he or she earns.

The second phase of the game pits each player, individually, against the computer in a race against the clock. The object of the bonus round is to get the most answers right in the least amount of time. At the end of the round, points are awarded accordingly.

Software publishers have only just begun to explore the multi-player computer game genre. That a game this good would come, not from an established game manufacturer, but from a joystick design house, is a nice surprise.

P.Q. Party Quiz is a great attention-grabber for parties and small gatherings. A game takes about 15 minutes, so no one is likely to lose interest. However, after a few sessions, gamers might start to see questions repeating. Suncom wisely included a second question disk to keep this interesting. All in all, this competitive trivia contest is a must for anyone who sees gaming as a social experience.

Editions also available for the Apple and IBM PC.

(Tracie Forman)

THINK TANK

FLIGHT SIMULATOR II

Designed by Bruce Artwick

Sublogic, 1984/

Atari computers/48K Disk/\$49.95

Flight simulators are nothing new on the software horizon. They've existed since the early days of BASIC programming, albeit in an exceedingly primitive form. So why has Bruce Artwick set the world on fire with his versions of computer flying?

Simple: He did it better than anyone else.

Flight Simulator II is virtually a dupe of the original *Flight Simulator* (also by Artwick) except for two changes: this one flies under the Sublogic banner and, more importantly, it flies on smaller home computers, such as the Atari and Apple systems.

FS II is every bit as impressive — if not more so — on an Atari as on an IBM PC. The sophisticated control panel will put the fear of flying into anyone unfamiliar with the workings of a Piper PA-28-181 Archer II. Its accuracy is breathtaking, and the two

thick reference books enclosed with the package only hint at the incredible complexity of this simulation. Fortunately, it takes relatively little skill to taxi around a runway and even less to snap your wings off and crash in a depressing heap — so there's plenty to do right from the start!

Seriously, a demo mode is included and neophyte Billy Mitchells will want to take full advantage of it. Fortunately, even dur-



FLIGHT SIMULATOR II (SUBLOGIC)

ing computer-controlled flight, the user has access to most of the controls with full directional views of the great outdoors available at the press of a key. And, boy, is there ever outdoors to look at! New computerists may not appreciate how far simulations of this type have come, but anyone who ever stared at a jagged line of fat, ugly pixels for ten minutes before figuring out that it was actually the horizon will beam with a sense of wonder as the plane passes close by the Statue of Liberty and other prominent geographical landmarks on the way to one of the four cities made available via the second, scenery disk (Chi-



ago, LA, Seattle and New York). I didn't double-check, but according to the documentation, the flying environment spans the entire continental United States.

If that isn't enough, there's also a trick flying option and, for those devil dogs of the silicon skies, a circa World War I dog-fight mode.

Flight Simulator II is a masterpiece, and

belongs in the entertainment software library of every computer owner.

(Bill Kunkel)

COMPUTER DIPLOMACY

Designed by Ron Sutherland
Avalon Hill, 1984/IBM PC, PCjr/
Disk/\$50.00

Computer Diplomacy is a disk-based version of the classic game "Diplomacy," played by such famous real-life masters of diplomacy as Henry Kissinger and John F. Kennedy. It appeals to the Walter Mitty-like fantasies that we all share. In it, up to seven players can represent one of the seven major European powers, and each must try to gain strategic position for the sovereign country through negotiation and armed maneuvers. The gamer's persuasive qualities are more critical to victory than the fleets and armies which are assigned at the beginning of each game.

Computer Diplomacy retains all of the charm and allure of the classic boardgame and adds a little extra. The object of the game is to control 18 supply centers, gained through negotiations. Unlike its non-electronic counterpart, one person can match wits against computer-controlled adversaries, and can therefore experiment with different strategies before playing a game against friends. Although the option is available, *Computer Diplomacy* does not encourage solitary games against the computer, since the machine doesn't really make deals. The success of "Diplomacy" has probably had a lot to do with the social atmosphere that it promotes.

Another extra which the computer version adds is that it can behave as the Game Master of the boardgame version. While you and your friends play the boardgame, *Computer Diplomacy* checks all moves for validity, and keeps track of which season the game is in and the strength of each power. It also acts as the referee in resolving battles and tracks the time that each diplomacy period takes. Perhaps the most desirable feature of *Computer Diplomacy* is that it allows users to save a game in progress for future continuation. The 'save' feature is particularly useful, because a good game of *Diplomacy* can often take more than five hours to play. With the save feature, players can split up a game over several days, giving them more time for planning and negotiating advantageous deals.

The packaging warns prospective players that this is *not* a game of chance. Prospective diplomats should be prepared to work out treaties and alliances, and even to disseminate misinformation about their intentions. The only action is psychological. You and your politics guide you.



DIPLOMACY (AVALON HILL)

The IBM version of *Computer Diplomacy* has an intricately-designed map of Europe that is so detailed that you have to use the scroll option to see the whole thing. Vivid color and high-resolution graphics are used extensively, and controlling the window is very easy. Just press the cursor control keys to scroll in the corresponding direction.

At the beginning of each game, players have many options to choose from. One is to have the computer decide which player gets which power. The seven choices are Austria-Hungary, England, France, Germany, Italy, Russia and Turkey. (Sorry, no United States, but keep in mind that this is a game based on European politics and geography in 1901). Another option is to have a printer connected for status reports. This feature comes in very handy for strategic planning. Options even allow players to alter the set-up of either a new game or a saved game.

Computer Diplomacy is not only an excellent rendition of a classic boardgame, but it is also an improvement. Its excellence and potential longevity is sure to please any strategy game lover. This is not the type of game that a player grows tired of after only playing a few times.

(Robert Alonso)

BREAKDANCE

Designed by Beck-Tech
Epyx, 1984/C-64/Disk/\$30.00

Unlike *Break Street* (Creative Software/Commodore 64), this program requires quick wits rather than flying fingers. This assortment of games and entertainments emphasizes the ability to recognize, remember and repeat patterns. By comparison, *Break Street* stresses synchronized joystick movement to create smooth-flowing dance routines.

The first game is the street people's answer to "Simon Says." A computer controlled b-boy on the left side of the display executes one of five possible moves. The player scores a point by correctly copying the step. A right answer causes the machine-guided breaker to perform the first step and add a new one. If the computerist successfully mimics both in the



BREAKDANCE (EPYX)

proper order, the challenger whips off a three-step sequence and so on. Three misses ends the game.

The moves are entered with the joystick. The choices are: spin (action button), bop left (left), bop right (right), point (up) and squat (down). The animation is excellent and very well detailed, though it may take novices a few practice rounds to learn the difference between the bop left and bop right poses.

The second game also involves copying moves, this time performed by the Rocket Crew. This group of breakers dances down the screen in rows of two, three or four. The computerist positions the breaker directly beneath one of the Rocket Crewmen and copies his movies. If the gamer doesn't copy the routine in time, the Rocket Crew boogies him off the edge of the pier at the bottom of the screen.

The third game mixes "follow-the-leader" with a touch of "Mastermind." Working against a time limit, the player observes a routine and then indicates the sequences of still poses which have been combined to construct the dance. After the gamer inputs a guess, a display uses boom box radios to mark the correct digits. The player continues to fill in the numbers which correspond to the poses until the correct sequence is achieved or time runs out. An odd note in an otherwise delightful program is that an American flag descending a pole indicates how much time remains. Patriotic computerists only fly the digital Stars and Stripes at half-mast during days of national mourning. The snappy

Epix pennant would have been much more suitable.

A fourth option cycles through all three games. High scores are permanently stored as well as the all-time in each individual event.

The entertainment portion of the disk allows the user to choreograph a 3½-minute breakdance routine by entering a string of numbers symbolizing a range of uprock and floor work moves. Each routine can consist of more than 200 separate movements, and good ones can be stored on the game disk for later replay. The breaking takes place on a glitzy stage, decorated with flashing lights. The player can move the dancer around the stage with the joystick during the routine, which comes in handy when whipping off steps like the moonwalk.

Breakdance is a very enjoyable change-of-pace program. The mini-games aren't particularly difficult, but they hold the computerist's interest, in part due to the outstanding audio-visual effects. The breakdance creation mode is just icing on a delicious cake, which a lazier designer might have tried to issue as a wholly independent disk.

So, to paraphrase the immortal words of Arthur Murray, "Put a little fun in your life ... try breakdancing."

(Arnie Katz)

QUO VADIS

Designed by Steven Chapman
The Edge, 1984/Commodore 64/Disk

Can this 1,000-screen climbing, jump-

ing and shooting extravaganza succeed as well in the U.S. as it has in the United Kingdom? Even with a mouthwatering promotion contest backing it (see EG February "Hotline" for details), **Quo Vadis** faces no small task in its attempt to transport its acclaim across the ocean.

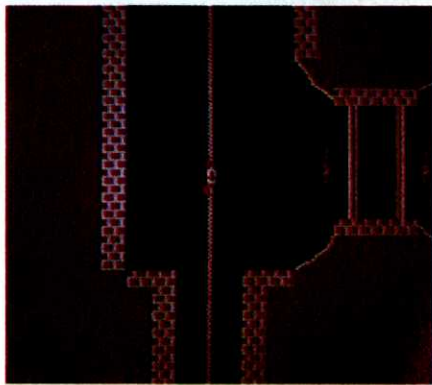
Yet there's no question that this epic action quest has a lot going for it. The interweaving of arcade-like and adventure elements gives the player the feeling that there's some point to all the running and jumping. The scrolling panorama of underground caverns, endless vertical shafts and hostile demons is well-drawn, and the heroic knight wielding a magic shield and an enchanted sword makes a fine on-screen surrogate. Gamers who've become accustomed to high-grade music on the C-64 won't be disappointed, either.

Quo Vadis is a challenge which the Dark Lord, about to triumph over humanity, has presented to the computerist as one of Earth's last heroes. The archfiend, it seems, thinks giving humans one last, slender hope is quite humorous. He has, therefore, invited you to explore the treacherous underground catacombs in a search for the Sceptre of Hope, the only artifact which can bring his downfall. To help (?) the seeker, the Dark Lord has scattered riddles which give clues to the words of power which actually activate the Sceptre of Hope.

The quest takes the hero through 1,000 screens of varied action. While gameplay is based on standard jump/climb/shoot mechanics, the often puzzling situations call for thought as well as dexterity.

The documentation is woeful. The rules folder doesn't explain procedures with enough detail, and the attempt to create a suitable atmosphere is not extensive enough to achieve the desired effect. There's nothing that hard about learning to play *Quo Vadis*, but clear and complete instructions wouldn't have hurt.

As occasionally happens, *Quo Vadis* is saddled with a tough-as-mythril opening position. That's why this review departs from usual EG procedure by passing along this hint from Dr. Tim Langdell, Managing



QUO VADIS (THE EDGE)

Director of the publisher. To get safely off the rope without falling into the firepit below, move down the strand until the hero is just above the horizontal passage leading off screen-right. Hold down the button so that the pulses issuing from the sword are aimed upward at an angle of 45 degrees. Let go of the button and the knight jumps off the rope with sufficient arc to land in the side cave rather than falling to a fiery death. From there, you're — ahahaha — on your own.

Side-perspective action adventures are pretty numerous these days, but *Quo Vadis* is definitely one of the better ones. The heavier-than-usual emphasis on brainwork makes it more satisfying than programs which lack this dimension and gives *Quo Vadis* the depth that invites repeated playings.

(Arnie Katz)

GNOSIS VII

Magnetic Harvest, 1984/Apple II + e/
48K Disk/\$19.95

Gnosis is a knowledge which transcends earthly realms and boundaries; a knowledge which makes its possessor more than mortal man. *Gnosis* is the quality which separates attainers of true wisdom (St. Francis of Assisi and Siddhartha to name two) from the balance of humanity. Believed to be obtained through kind words, good deeds, and constant supplications to the gods above.

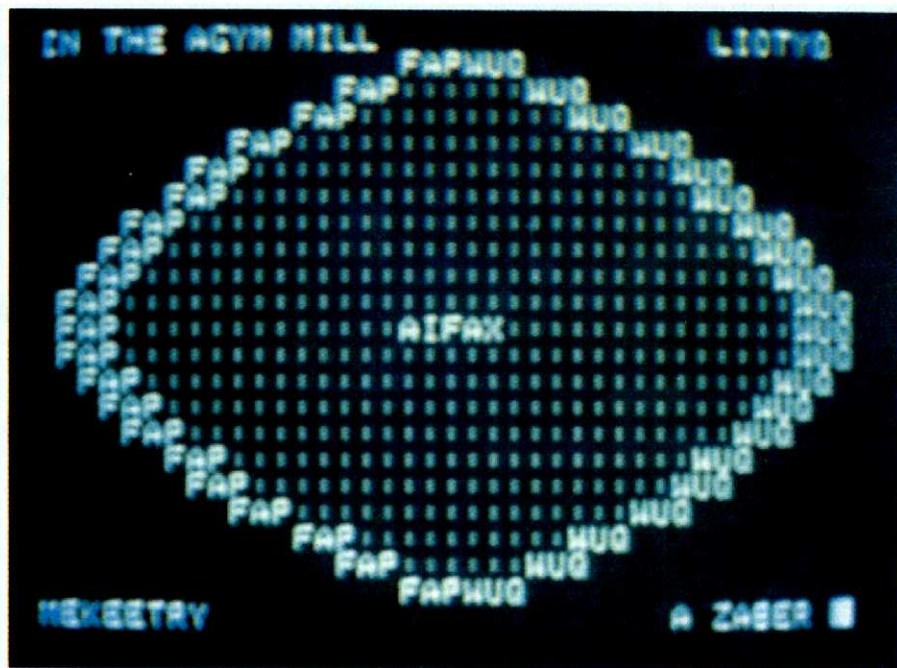
Gnosis VII allows compugamers the opportunity to attain this "other worldliness" through daily acts and deeds as they travel through seven mystical lands.

The lands are governed by Lords of Power, whose ranks include Mars, Saturn, Luna, Jupiter, Mercury, Sol, and Venus. As they cycle through the lands from one turn to the next, their influence wanes in their prior abodes, eventually being supplanted by that of the newer rulers. For a short time after their departure however, they still affect the outcome of events in their former fiefdoms.

Gamers must learn the relationships between the current (Influencing), last-visiting (Patronal), and second preceding (Archetypal) Lords in order to offer the proper gifts and bequeath the correct boons. It's also important to identify which economic (wool, stone, seed, etc.) and cultural (writing, weaving, etc.) items are associated with a particular Lord. (The last thing you want to do is offer Mars an ode).

Along the long, hard path to spiritual fulfillment, the acolyte must eat and sleep. Naturally it takes money to do this, so players have to learn to trade — several, if possible.

Money and experience are earned only through working at or learning any of the trades taught or needed in the lands of



GNOSIS VII (MAGNETIC HARVEST)

Gnosis VII. The funds can be used for travel or purchase of worship materials. Each step to a higher ground is built on the bricks of those below. Granting boons to obtain secret information comes only after one possesses a skill and its specific raw material. Everything is interrelated; each succeeding aspect draws on its predecessor as the hero strives to attain perfection.

The computer determines when wars, disabilities, and other unfortunate events occur to limit movement or more grievously impair the player's chances for entry to Nirvana. Having access to the proper knowledge can avert these ill effects; but it's privileged information available only to those who've suffered and still done good deeds for others.

Since the game ends when a player's life is over (between 65 and 85 moves — read years), it's best not to dally. There's barely enough time to learn and earn enough while making your way through the territories. Fortunately, the game is packaged with worksheets which help organize the

relationships between the Lords of Power their secret names, and the skill, boons, work, and materials tied to each. The documentation is thorough, though somewhat confusing. It takes a little while (and a few readings) to get the drift of *Gnosis VII*. A map and hint sheet are part of the package.

The quest may be played in either of two modes, Elementary or Advanced. While they both feature five difficulty levels, they differ in one very important aspect. The Advanced game version utilizes uncommon names for materials and abstract concepts, making identification of the inter-relationships very difficult.

Any way it's sliced, *Gnosis VII* can be interesting, if you invest the time and effort to master its randomness and decipher its cryptic associations. This one's recommended for gamers who are really looking for something different, metaphysically speaking. You may even find out who you really are!

(Ted Salamone)

ARTICLES OF WAR

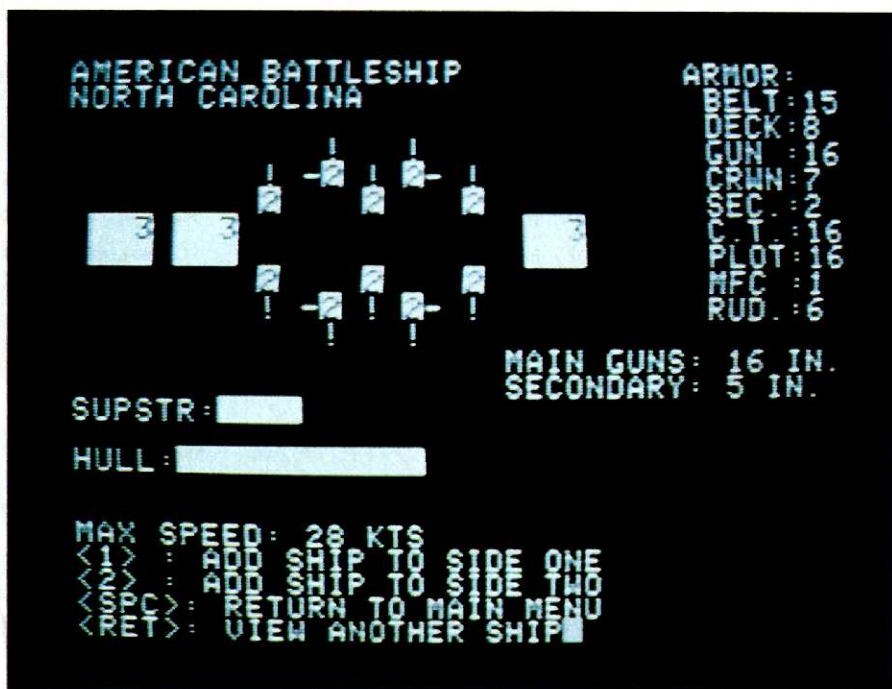
DREADNOUGHTS

Designed by Thomas A. Dowell
Avalon Hill, 1984/Apple II/
48K disk/\$30.00

Dreadnoughts captures the excitement of sea battles in the North Atlantic by modeling them in a calm, yet detailed, way without showing the actual boom and

burn of such warfare. While the on-screen representations are unrealistic in themselves, they certainly reflect the manner in which such battles were fought.

The game can be played in two ways. In the first version, the gamer runs the German ships Bismarck and Prinz Eugen against the computer-led Royal Navy. In



DREADNOUGHTS (AVALON HILL)

the second, the computer acts as a combination referee, statistician and game-board designer in a match pitting two admirals with various ships against each other.

The *Bismarck* scenario, while interesting, is more of an introduction to head-to-head games. While it may seem strange, it soon becomes second nature for a solitaire player to run both sides of a battle while maintaining a very high level of interest.

How? First, the strategic game is played on a very rough-looking map of the North Atlantic (when will Avalon Hill incorporate some graphics worthy of the Apple into their otherwise fine games?). On this map the *Bismarck* and the Prinz Eugen are moved by inputting their course changes and speeds through simple one-key commands. Their movement is plotted on the map and the idea is to place them into the also-plotted convoy routes and sink some shipping by patrolling and sighting the ships and then moving to the battle program, to send them to Davy Jones' locker.

The strategic program is one of the more lifeless simulations of the often-simulated *Bismarck* scenario. The battle program, however, saves this game.

Each ship is represented by a Ship Diagram. This diagram is a representational floor plan of the ship. In blocky pictorials, the diagram shows the placement of the primary and secondary gun turrets aboard that ship. It also shows each gun's field of fire. Besides the block-diagram guns, the screen also details the amount of damage to the hull and superstructure of the ship, and lists some of the ship's variables including the depth of armor at nine critical

points on the ship's structure.

In the battle program these diagrams are used for two main purposes. First, they are damage control screens. If a gun's block, for example, has a row of X's through it, that gun has been destroyed. Even more importantly, the screens are used for tactical planning. By envisioning where the guns on a ship are in relation to the tar-



DREADNOUGHTS (AVALON HILL)

get(s) the player gets a very accurate "feel" for what such warfare is like.

During the battle program a schematic map of the general area is shown. This map is simply dots representing the middle of squares of ocean, and letters representing the ships involved. The players can maneuver the ships about this primitive map with quickly-entered keyboard commands.

Moving a ship requires entering a string of commands to the maneuver point limit of the ship involved. R and L turn a ship respectively 45-degrees right and left and numbers simply assign movement points. So entering a command of '2RR1L' would send a ship forward two movement points,

turn it 90-degrees right, send it one movement point forward and turn it 45-degrees left.

P for primary will allow a captain to assign a target to the vessel's primary guns while S for secondary takes care of targeting the rest of the turrets. Hitting D for damage/status brings on screen that vessel's ship diagram so that damage can be seen and placement of turrets and such can be considered as tactical means to achieving an overall strategy.

The results of each combat are figured simultaneously by the computer and any damage is added onto the proper ship's diagrams.

Not only the areas shown on the diagram can show damage, there can be "special" damage as well. The control room, main fire control, plotting room, radar, powder magazines, engine room, shell handling room, boiler room and forward engine room can all be individually damaged. Results of such damage can range from waiting for the second-in-command to take over the ship from a captain-casualty, to seeing the ship itself destroyed.

While the computer does an adequate job in the *Bismarck* scenario of running its side of the action, the real fun lies in experimenting with the many, many ships supplied on disk in truly mind-boggling ocean melees. Forty-five of the most important vessels from all sides of the North Atlantic theatre are all present and ready for action complete with their ships' diagrams.

While at first it may seem arcane to set up a computer game wherein the player will be running each side (with up to nine ships on each side or eighteen in total), it quickly becomes exciting. As all boardgamers know, when you are playing both sides of a complex game that also has many chance elements involved, you might just as well be two different people. Even though your right hand knows what your left is trying to do, sometimes each side doesn't quite pull off what has been planned. And, of course, if you do have a human buddy handy, this game would be great for two or even more players (each captaining a ship or side).

Dreadnoughts is really one of the first adaptations we have seen of miniature or tabletop boardgaming of sea battles brought to the computer screen. It does play like a game of miniature models (whether of nondescript blocks of wood or detailed lead figurines) and that, as any miniaturist will tell you, is not bad at all. When you throw in the fact that the computer does all of the tedious mathematical figuring and statistics, the player will have many an enjoyable afternoon to look forward to.

(Neil Shapiro)

LIBERTY INSERT COIN HERE

By BILL KUNKEL

Here Come the Young Turkeys!

TURKEY SHOOT

Williams

It's 1989, and a year has elapsed since the "Great Gobble Blight" transformed one-third of our planet's population into turkeys! These bird-people are a menace to the remaining, non-mutated humans, with their fowl habits, thug-like behavior and tendencies toward robbery and all-purpose rabble-raising.

The player is appointed an official Turkey Terminator, armed with an optical-sensing handgun that Dirty Harry would give his eye-teeth for, then is sent on 100 missions with the express purpose of eliminating all the turkeys — sorry, no left-overs allowed. This new Williams entry is just great, one of the most thoroughly enjoyable coin-ops to appear in many, many moons.

Turkey Shoot reaches for, and attains, the type of entrancing action that other games just dream of. Excellent graphics, clean, responsive play-action, and a fine, feathered bonus treat all give this contest the sort of elusive, visceral charm missing from 99% of today's coin-ops.

The visuals are the first thing a player will notice. The game's 168K bytes of ROM are used to create a scene so vivid and colorful it fairly leaps off the screen. The background is a city avenue with buildings flanking the main street, with more stores, as well as the helipad-equipped Hall of Justice, running horizontally across the back of the playfield. The businesses are rendered in a deep blue with electric-white and yellow neon signs blasting through the night's darkness.

The turkeys come in several types: pilots (keep them away from the

parked helicopter!), Bosses, Cyborgs and, most common, the Thug Turkeys with their cabbie caps pulled down over their eyes.



The game mechanic is pure and simple: using the optical sensing gun (bolted to the coin-op), grenade, and gobble button, players attempt to obliterate every bird on screen, losing one of three weapons whenever a turkey makes a getaway or harms a human being. The gobble button, which can be used only once per rack, freezes the birds in their tracks momentarily, while the grenade launcher (similarly useable once per round) does about what you'd expect a grenade-launcher to do, hurling an explosive into a pre-selected assemblage of fowl characters. Every eighth round is a bonus rack, with players getting 15 seconds of free fire-time, during which not only the turkeys, but also the garbage cans and hydrants, are viable targets.

As mentioned earlier, this game has a lot of intangibles going for it. The gun, for example, feels right in the player's hand(s), and the pinpoint of on-screen light that serves as a targeting cursor is an excellent alternative to using the gunsight on the weapon. There's also a delightful added attraction: after an especially successful round of play, don't be surprised to see the feathers literally fly — that is, real turkey feathers, hidden within the cabinet, are unexpectedly tossed into the air, courtesy of a blast of machine-generated air.

Turkey Shoot is a marvelous game that blends today's technological advances with the primeval joy of target shooting. It's hard to put one's finger exactly on why this game is so much fun, but don't waste time worrying about it. Just turkey trot on down to your nearest arcade for a meaty arcade treat.

GAME OF THE MONTH

Chasing Spooks for Fun and Profit

GHOSTBUSTERS

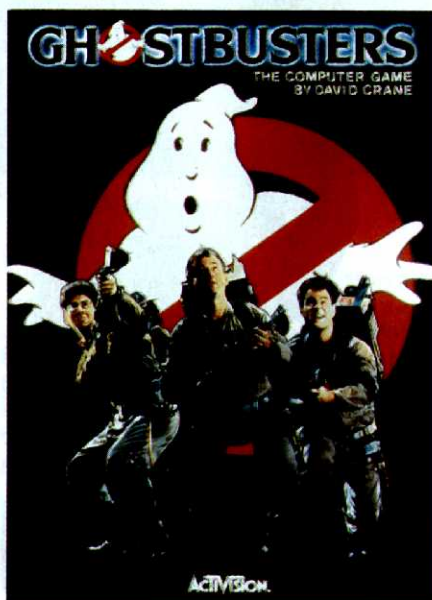
Designed by David Crane
Activision, 1984/

Commodore 64/Disk/\$31.95

Last summer's top comedy movie, complete with its compulsively rhythmic theme song, is now haunting the home computers of America. Superstar game-creator David Crane, aided by a support team of talented specialists, has easily hurdled the barriers which have tripped up more than one designer of a licensed-based title in the past.

For those who've been repeatedly disappointed by software based on books, films, TV shows and the like, **Ghostbusters** should prove a pleasant surprise. It incorporates virtually all important elements from the flick into what is a clean-playing and simple-to-learn program. The teens and pre-teens who filled and re-filled movie houses to watch Bill Murray and company battle the Unearthly will find the game particularly enjoyable, but more mature computerists should find operating a ghostbusting franchise highly entertaining, too.

The goal in this multi-screen action-strategy contest is to catch enough ghosts by various means to earn a decent return on the original investment of \$10,000 for a franchise. When that is accomplished, the player ends the game by sneaking two ghostbusters to the top of the Temple of Zuul, the home base for ectoplasmic entities in the heart of the city. If the Gatekeeper and the Keymaster rendezvous at the Temple before the computerist builds up enough credit for catching ghosts, or if the player is unable to get two ghostbusters into the Temple, call it a victory for the bad guys. The program



furnishes victors with an account number. This number can be entered prior to the start of a new round of *Ghostbusters* to allow the gamer to carry profits over from session to session. Extra funds make it possible to buy some of the fancier equipment which first-timers must, regretfully, forego in the interests of thrift.

Assembling a customized ghost-hunting vehicle and its accoutrements must be completed before hitting the streets. The player selects from four basic vehicles, each of which has a different balance between equipment-carrying capacity and cost. The following devices can be purchased as need and budget dictate:

PK Energy Detector. This turns buildings pink on the city map as you drive past them to indicate the approach of "Slimers."

Image Intensifier. This makes Slimers easier to spot.

Marshmallow Sensor. When the dreaded Marshmallow Man approaches, this turns a building white as a warning.

Ghost Vacuum. During the driving sequences, this unit scoops up itinerant ghosts (called "Roamers") when the car passes over them.

Ghost Traps. This required purchase is necessary because you've got to put a ghost somewhere between the time it's caught and delivery to GHQ (located at the bottom-center of the map screen).

Ghost Bait. This stuff attracts Roamers which combine to form the devastating Marshmallow Man.

Portable Laser Confinement System. This is the deluxe ghost trap, capable of holding 10 spooks. It reduces the number of trips the ghostbuster vehicle must make to GHQ to unload captives.

Once the vehicle is chosen, the action starts on the city grid map. The ghostbusting vehicle starts from GHQ with a complement of three spook-fighters. The gamer must trace the shortest possible street-path to a red-flashing building (indicating the presence of a Slimer). Touching any Roamers enroute to the Temple of Zuul temporarily freezes them in place.

Upon arriving at the entrance of the desired building, pushing the joystick invokes the driving screen. A close-up overhead view of the vehicle zooming down the street dominates this display. It is possible to move the vehicle right or left with the stick and if there's a ghost vacuum handy, suck up any previously immobilized Roamers. The length of the driving sequence is di-

rectly related to the distance travelled on the grid map.

If the ghostbusters reach a troubled building in time, another display presents the front facade. The player maneuvers one ghostbuster to the center of the screen, deposits a trap and then moves him all the way over to the left. When the second fighter appears, move him to the right edge and face him toward his teammate. Pushing the action button causes both to activate their negative ionization backpacks. Moving the ghostbusters toward each other forces the Slimer toward the trap, which can be sprung when the ectoplasm is hovering directly above it.

Each captured Slimer adds to the business' credit rating, shown on the status line at the bottom of the screen. If a ghost eludes the trap, it swoops down on one of your ghostbusters. "You slimed me," he says through the miracle of speech synthesis. Such victims must be returned to GHQ for clean-up.

If all this sounds rather cut-and-dried, then you've found the weakest aspect of this generally first-rate effort. The game is almost too easy, lacking the complexity and strategic options found in today's more sophisticated computer strategy contests. No one's going to put your name in lights for pyramiding your \$10,000 stake into 40 or 50 grand.

On the other hand, there are few programs more pure fun to play than this one. It substitutes — successfully, it must be added — the excitement of "living the movie" for the ego boost of surmounting a truly demanding challenge.

Part of the fun is undeniably the title screen. The now-familiar Ghostbusters logo dominates the screen, but soon a little white ball skips into sight near the bottom. Then as the words scroll vertically, the player can follow the bouncing ball as it taps out the syllables of the lyrics as a marvelous computer version of Ray Parker's infectious song throbs from the monitor. Hitting the spacebar adds a crisply pronounced voice saying, "Gho-o-ostbuste-e-ers!" Whee! Sometimes sophistication is overrated.

So if you want a snappy change-of-pace program with varied action and tons of "cute", who ya gonna call?

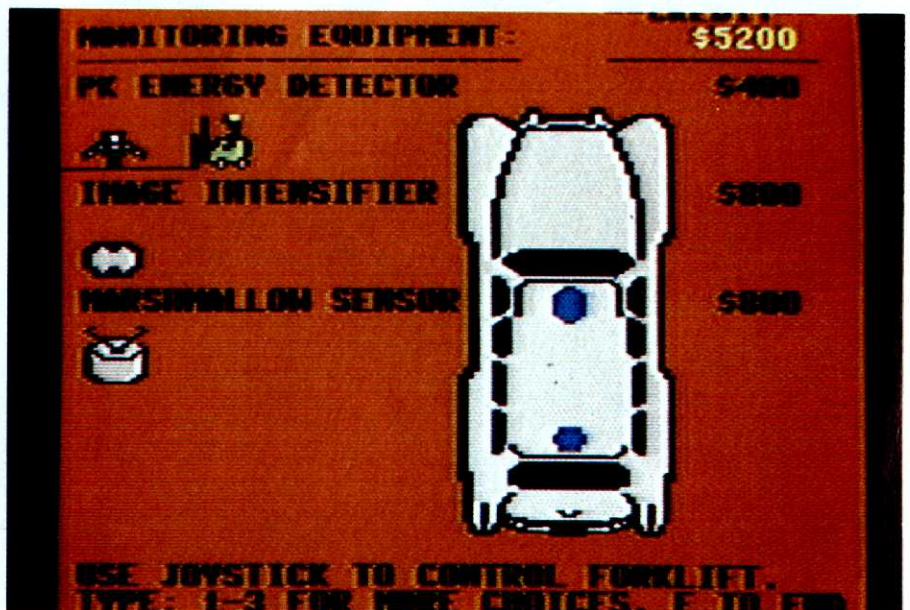
... Ghostbusters!



A handy vacuum sucks up stray ghosts on the way to a haunted destination.



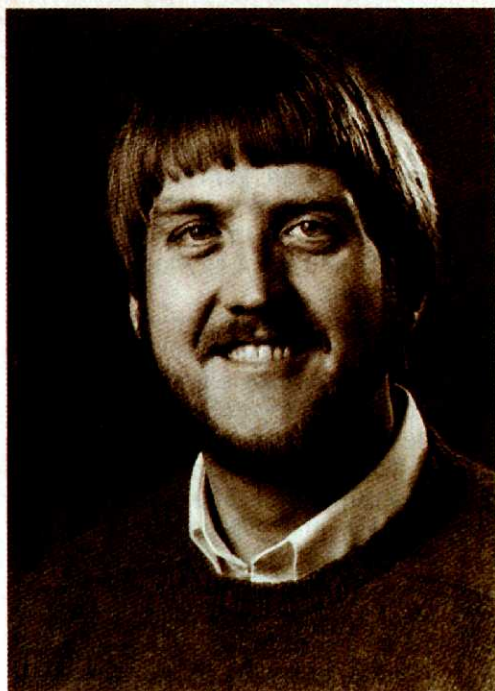
Open the trap when the time is right to spirit ghosts into harmlessness.



Four different cars can be bought by 'Busters. Prices vary with cars' capacities.

GAME OF THE MONTH





David Crane, designer of *Ghostbusters*.

CATCHING GHOSTS WITH THE BOSS BUSTER

The Supernatural Side Of David Crane

"Whatever happened to (fill in the name of your favorite videogame designer)?" That question is heard more and more those days as the shift from videogames to computer entertainment software leaves many of the cartridge creators of yore out in the cold. It's a sad fact that all too many of the Master Tricksters who made the Atari 2600 jump through digital hoops in 1980 are having trouble coping with the increased demands which microcomputers make on the designer.

David Crane, the force behind Activision's *Ghostbusters* (Commodore 64), stands at precisely this career crossroads. A legend among electronic gamers for such all-time winners as *Freeway*, *Pitfall!*, *Deathlon* and *Pitfall! II: Lost Caverns*, the softspoken gamesman has joined the computer revolution with this charming and enjoyable design based on the 1984 Columbia Pictures film "Ghostbusters".

Actually, "re-join" would be the proper word, because Crane is no stranger to microsystems. Those familiar only with the much-publicized Activision phase of his career may not be aware that he was one of the pioneering programmers on the Atari 800 family of machines. Still, this is his first computer game in quite a spell.

"There's really no difference between designing a videogame and de-

signing a computer game," says David. "It's just a matter of using a particular device, with its advantages and disadvantages, which interfaces between me and the TV set." This piece of commendable modesty out of the way, the somewhat self-effacing designer did concede that there were, indeed, some differences.

"The big thing," he says, "is the removal of the memory constraint. With the computer, you've got all kinds of RAM."

Waxing a little philosophical — as is the right of any designer coming off a major project like this — Crane goes on to explain that beefed-up memory alters the way a designer constructs the program. "It used to be a matter of trade-offs. You found yourself asking, 'Is this 2K playfield really worth half of the available RAM?' The usual result was that the design had to go back to the code and compact it a little bit more." This sometimes necessitated some convoluted solutions, such as programming various parts of the same playfield with differing degrees of graphic resolution.

A GHOSTBUSTER IS BORN

"Somewhat serendipitous" is the way Crane describes the circumstances which brought him and *Ghostbusters* together. After Columbia and Activision got together on the

idea of basing a computer game on the hit comedy, the opportunity to actually do the disk was potentially available to any of the designers in the large Activision stable.

Crane admits he didn't immediately jump at the chance when the company offered it to him. His main fear: That the project would eventually get entangled with his approaching wedding day.

And that's where the serendipity comes in. It seems that David was already several months into development on a game of his own. "I was leaning toward a classic shoot-out, since I hadn't done one of those in a long time," he recalls, "but it was basically a game looking for a theme."

At this stage, Crane had a city map screen with a car driving around it and the vehicle construction set. When he analyzed what he already had, however, he immediately realized how close most of the elements were to aspects of "Ghostbusters." He took the assignment.

Armed with a 12K byte headstart, he went to work defining the broad outlines of the *Ghostbusters* game. His conception was based on a four-part scenario — the construction set, account numbers (for carrying play from session to session), the street map and driving sequence. "Within a week of that, we had the game play in rough form," says Crane. "At

GAME OF THE MONTH

that point a generic building would just have 'bank' written on it if that's what it was supposed to be."

The veteran designer worked over his materials in two-hour bursts in the middle of the night. Even with this schedule, Crane quickly saw the limitations of what one person could accomplish. "It seemed silly for me to do all the graphics," he explains. He called in artist Hilary Mills to do the visuals from his roughs. Then because Hilary is not herself a programmer, Tom Shotter wrote the conversion code to turn raw data into computer data.

While this was going on, Crane began plugging the pretty pictures into the framework of the game. By the time his wedding was rolling around on the calendar, he had *Ghostbusters* playing "at about 98%."

Even a dedicated game designer like David Crane wants a honeymoon. Crane picked Adam Bellin to ride shotgun on the project while he and his new bride went off on holiday.

Since nothing particularly eventful went wrong with the program while David was away, Bellin went to work to improve the human engineering of *Ghostbusters*. For instance, Bellin relieved the anxiety of some test-players by making it possible for computerists to see all the options before selecting a vehicle from the construction set.

The idea for adding speech synthesis came from Activision producer Brad Prager. The development of a special compaction technique by Electronic Speech Systems of Berkeley, CA made it possible to add this trimming without making undue demands on the C-64's memory capacity.

Ghostbusters embodies a good portion of Crane's design philosophy. "Some people have called me a visionary, but I'm really not," he insists. I always design games for me. And since I play games a lot, I get tired of whatever's currently popular fairly quickly and want to move on to the next thing."

That's why Crane consciously steered away from designing *Ghostbusters* to appeal to the real arcade aces, the folks whom he says, "learn *Asteroids* so they can do better at *Defender* and master *Defender* so they can conquer *Star Gate*." So while the disk may disappoint the score-conscious — a rapidly shrinking segment of the computer gaming community — it permits those who aren't quite so performance-oriented to become immersed in action right away.

HOW TO MAKE GHOSTBUSTING BIG~TIME!

"Hints for *Ghostbuster*?" said David Crane, a roguish glint flashing in his eyes. "I don't know if I want to give any hints." He went on to explain that, since the game is more of a simulation of the movie than a contest with a hierarchy of scoring goals, tips on how to play might tarnish the experience.

"Aw, c'mon, Dave, we just want a few ideas to help the readers of *Electronic Games* get right into the game," pleaded EG's man-with-a-notebook.

"We-e-ell-I-I. . ." Kindhearted soul that he is, Crane found it hard to remain firm in the face of abject groveling.

"Say, Dave, remember the old days at Activision when you wrote the hint sections in the documentation?" offered another EG scribe. That bit of nostalgia proved to be the decisive factor, and David started tossing out a few strategy gems. The gist of his sug-

A Little Help from David Crane to get your Ghostbusting franchise off to a hot start.

gestions is as follows:


1. **Choose equipment carefully.** Get a good-sized vehicle and all the paraphernalia you can afford at the beginning of the game. The laser cage, obviously, must wait until the franchise builds up capital.

2. **Plan your driving route on the map screen carefully.** This phase of the game should be viewed as an

elementary problem in topology. In other words, get where you're going by the most direct possible path. You don't want to be caught on the driving screen while Roamers throng the streets on the way to the Temple of Zuul.

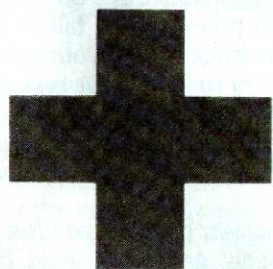
3. **Freeze Roamers whenever possible.** That way, the PK level of the city doesn't rise as fast and you've got a chance to sweep up these nasties on the driving screen.

4. **Be ready for the Marshmallow Man.** This building-stomper must be stopped, and stopped quickly. When the Roamers form a Marshmallow Man, hit the "B" (for bait) key immediately before he can turn valuable buildings into rubble.

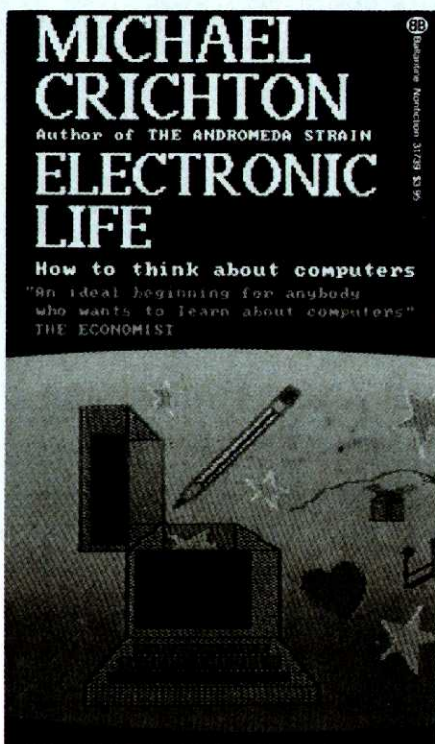
5. Singing along with the theme song is optional. 

Games Library

**Bob Hope
says,
"Help keep
Red Cross
ready."**



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ELECTRONIC LIFE

By Michael Crichton/
Ballantine Books/\$3.95

"How to Think about Computers" is the perfectly descriptive subtitle of this always thoughtful, sometimes brilliant book by a renaissance man for whom the adjective "multi-talented" seems tailor-made. Crichton obviously intended this 266-page paperback for novice computerists, but no one should skip the chance to read this artful collection of insights and analyses.

The tenor of the book may be glimpsed from this list of eight basic assumptions listed by the author in his introduction:

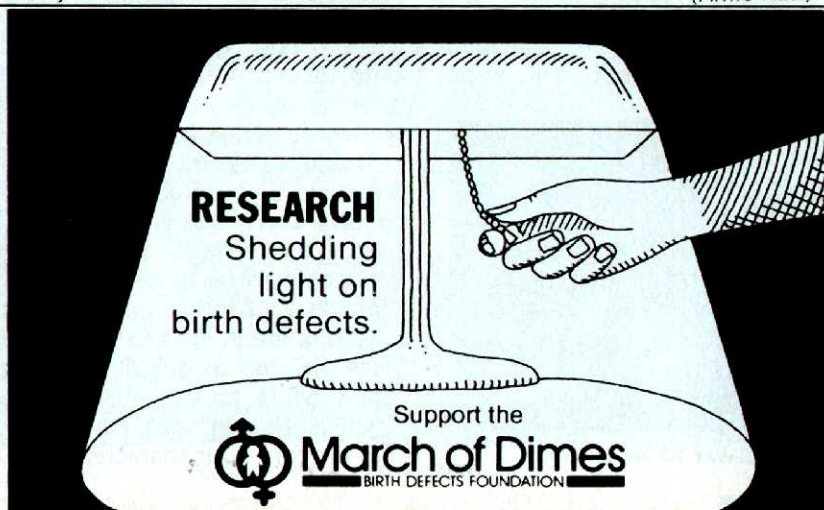
1. People are more important than computers.
2. Much of what we believe about computers is wrong.
3. It is easy to use a computer.
4. This is fortunate, because everybody's going to have to learn.
5. It is not so easy to use a computer wisely.
6. This is unfortunate, because everybody's going to have to learn.
7. Computers can actually be a lot of fun.
8. There are people who want to put a stop to that.

The bulk of the contents is composed of short essays arranged in alphabetical order under the heading "Practical Matters A to Z." Here Crichton gives his slant on everything from the over-selling of computer literacy to what to do when a company blames a problem concerning you on the firm's computer. Despite the format, *Electronic Life* is definitely a read-right-through book.

Each entry is entertainingly written and, more importantly, thought-provoking. It's the kind of book you can read in one sitting and may still be thinking over a year later. No one is going to agree with everything Crichton says, but every assertion is backed with a well-reasoned argument.

Electronic Life won't tell you which machine to buy or make you a better computer gamer, but that is not its purpose. Computers are a major reference point in our society today and will become even more important in the final decades of this century. Crichton wants humans to stop accepting the commonplace "truth" about this amazing machines and begin to focus our intelligence upon them and the role they are to take in the future.

(Arnie Katz)





STRATEGY SESSION

The Temple of Apshai: Gateway to Adventure

By FRANK TETRO, JR.

GATEWAY TO APSHAI

Epyx/At, C-64, CV/Cartridge

In *Gateway to Apshai*, you are heir to Apshai's Greatest Warrior. The mission: reclaim the underground labyrinths and find the fabled Temple of Apshai.

The strategy behind *Gateway to Apshai* is an intricate one. The first and most important thing to remember is to grab everything in sight, and avoid traps and creatures. Use the "locate trap" spell often, since traps damage the hero even more than most creatures can. When you get a weapon which is superior to yours, immediately switch yours for it. This holds true for shields, daggers, and the like.

When fighting creatures with swords, it's best to use the ol' hit-and-run method, rather than the hold-your-position approach. This is be-

cause after hitting a monster, he hits right back, so if you hit then retract, you lower the chance of a successful blow. Another trick is to use the objects in a room as barriers. Get an object between you and the advancing creature. When he hits it, he will get stuck, and you can simply walk up and cut him to pieces!

It is important to check your status often, since many times a creature or trap will wound you badly and you won't notice. Use healing salves and potions to cure yourself up to strength.

If you are lucky enough to find a map, use it immediately. It uncovers the entire maze so you won't be running blind. Remember to use your arrows very sparingly — they are too scarce to use killing a lowly bat or rat.

If after walking around you can't seem to find another way to go, it's time to use the "search for secret door" spell. This uncovers additional hidden doorways to explore.

Try not to use the "next-level" option unless you are positive you've checked every nook and cranny of the level you inhabit. You may unknowingly forfeit a needed spell or armament. The last, and probably most important, tip is to try and complete the level as quickly as possible while killing as many creatures as possible. This will earn bonus points that increase your characteristics.

Gateway to Apshai is an intricate adventure which requires quick thinking and good reflexes. One who is slow on the draw, or doesn't use his/her spells wisely, will quickly learn what it feels like to be a permanent denizen of the dungeon!

LODE RUNNER

*Broderbund/Most Systems/
Disk or Cartridge*

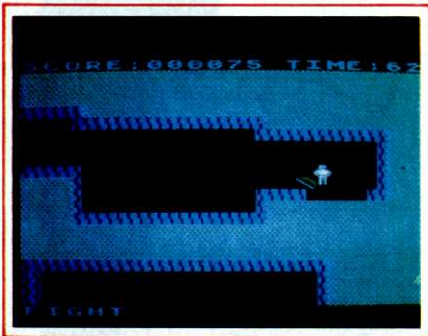
In *Lode Runner*, the gamer is a Galactic Commando in charge of rescuing the town's gold, hidden deep in enemy treasure rooms. Your only weapon is a laser drill pistol capable of digging holes in the bricks to capture guards, or get to tricky gold rooms.

The main strategy behind *Lode Runner* is to get to know your drill. This is the key to completing most of the 150 screens successfully. Aside from capturing and killing guards, it is also crucial for getting to gold buried under tons of brick.

When a screen appears, move constantly. If you stay in any one place for too long, the guards surround you. When they're hot on your tail, dig a few holes and let them fall in. Then continue moving, changing your pattern as often as possible. When you get all the gold on a level, if the ladder doesn't appear, it is because a guard is carrying some with him. Dig holes for them to fall in, since guards holding gold drop it when they fall.

Be careful, however, with your use of the drill. Remember, you can only dig in fissured blocks, so don't get caught hanging around on solid brick for too long. Above all, do not fall in your own holes. If you fall in a hole only one brick wide, your goose is cooked! Try to keep your eyes on the guards. If one is killed by a closing pit, he will reappear on the top, so watch that he doesn't reappear right next to you!

The trickiest part of *Lode Runner* is undoubtedly getting to gold that is deeper than one layer down. This requires a system. Go above the brick, and drill a hole. Then retreat a block, drill another hole and retreat, etc., until about 3-5 blocks across are clear (depending on how deep you wish to go). Then fall in the hole and repeat the procedure until you reach the gold. You will notice that the hole is in the form of a "V" as you go down. This is why you must make the top as wide as possible, because if you don't your hero ends up buried in the tip of the "V" nowhere to go!



GATEWAY TO APSHAI (EPYX)



LODE RUNNER (BRODERBUND)

Many of the *Loderunner* screens offer puzzles in which gold must be removed in a certain manner, or one that looks impossible to get. Don't fret. Just stop and analyze the screen, looking for ways to dig to it using the "V" method, or maybe a trap door that will allow you to fall to it, or at least fall to a place from which you can proceed. *Lode Runner* is a game which requires both thinking and skill. It won't be mastered quickly, but with a bit of practice you'll be a millionaire in no time.

PENGO

Atari/Atari computer, 5200/Cartridge

In this game, you play Pengo, a lovable penguin, whose job it is to rid the field of the nasty snow bees. Killing all the snow bees earns Pengo a lot of bonus points, and moves him to a higher level. However, if any snow bees touch Pengo, they pierce him with a fatal stinger.


The main strategy behind Pengo is to analyze the situation and act immediately. When a maze appears, analyze it, and see how easy it will be to connect the 3 diamond blocks. If it appears easy, make a run for them first. If this appears difficult, focus your attention on killing most of the snow bees first, then go for the diamonds. Destroy the nests, since it's worth bonus points, and slows down the

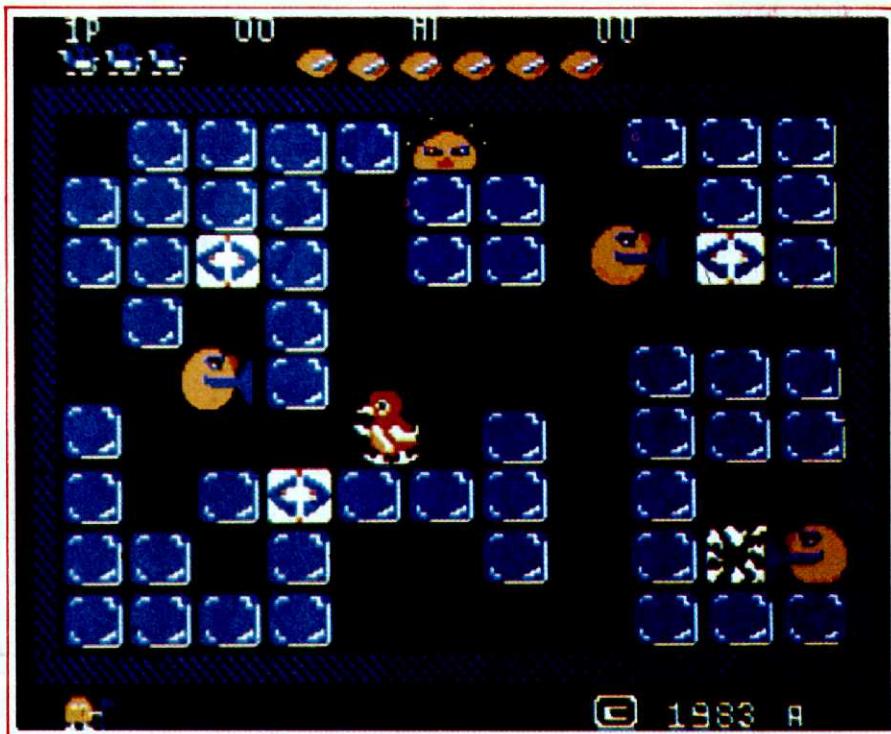
snow bees, as this is worth much more than killing them individually.

Another trick for scoring more points is to line the 3 diamond blocks up somewhere within the 4 walls, instead of against a wall. This earns Pengo twice as many bonus points. An easy way to line these diamonds up within the field is to first create a wall of ice blocks against the border. Then push the diamond blocks against this wall of ice to earn 10,000 bonus points. Crushing the snow blocks earns 30 points each, so it's a good idea to crush them after you've lined up the diamonds. Remember, though, they slow Pengo down. When Pengo is being pursued, it's better to run around them than through them.

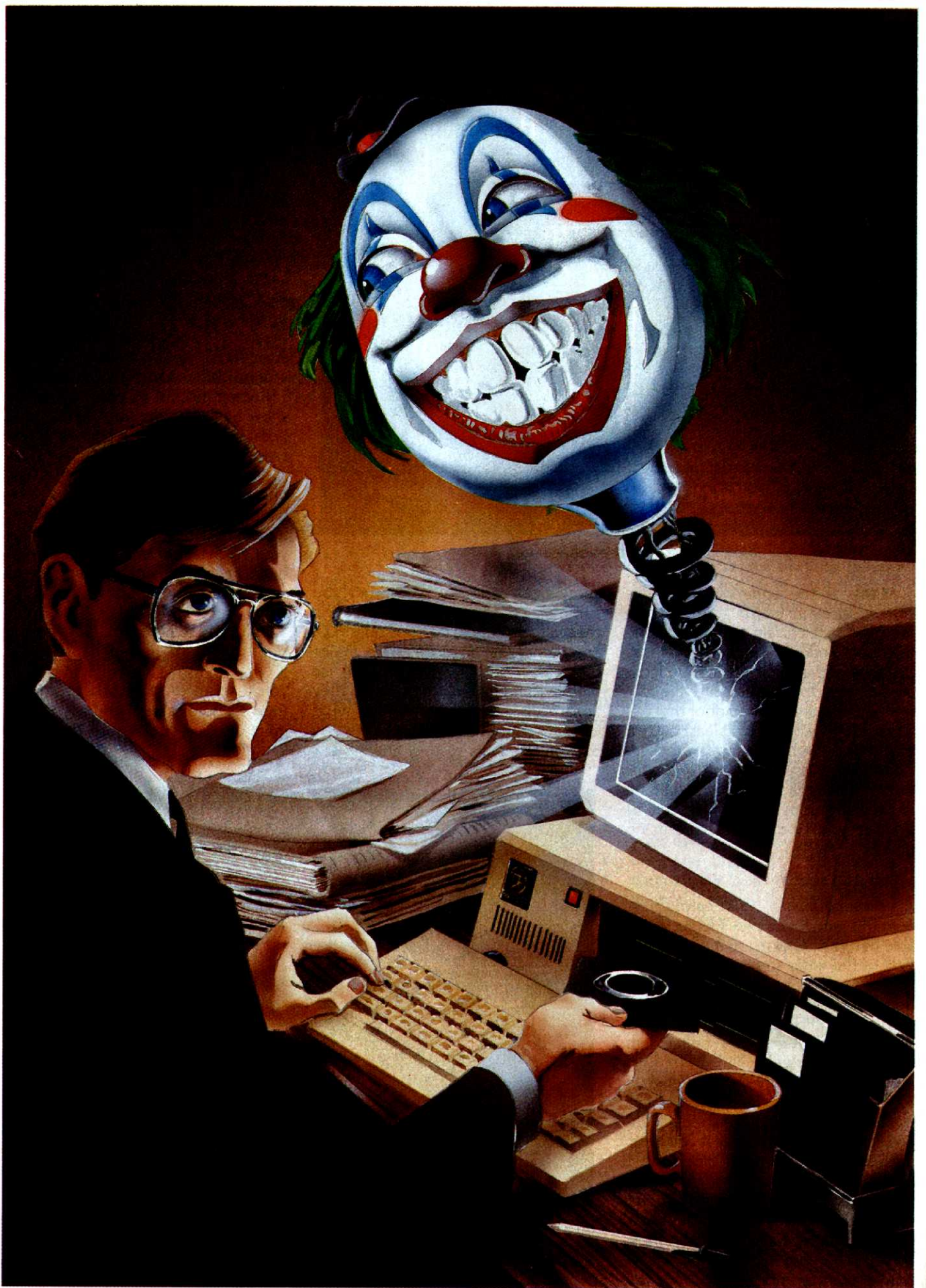
Remember not to crush off all the snow blocks before you kill the snow bees, or you'll have a heck of a time trying to kill them all.

Stay on the move, keeping at least one block between you and a snow bee so you won't be left helpless. It's also a good idea to try and accomplish your given task in as little time as possible. The faster Pengo completes his screen, the more bonus points he earns.

Pengo is a game of high scoring opportunity. If played haphazardly, it's easy to forfeit a lot of points. But if you take an extra second to analyze Pengo's predicament and act accordingly, the ice bird is sure to emerge victorious. 



PENGO (ATARI)



GO FOR THE FUNNYBONE

By BRIAN SCOTT & BILL KUNKEL

Games That Come Complete With A Grin

Humor hasn't always been a part of electronic gaming. In the **Space Invaders** era, laughter in gaming was pretty scarce — and in these kinds of paranoid, they're-coming-faster-and-getting-lower contests of endurance and hand-eye skill, nervous laughter serves as a way to release building tension. But games that are genuinely funny are emerging within each separate game genre, and sometimes even as their own sub-genre, as electronic gaming branches off into new areas.

The face of gaming transformed from a nervous laugh to a genuine smile when games started getting "cute" instead of funny. As great strides were made in terms of higher-resolution graphics and enhanced memory, designers turned to the task of wrapping a series of mix-and-match play mechanics in progressively prettier game packages.

Unfortunately, the legacy of the **Pac-Man** era was many games awash in beauty that wasn't even skin deep. Creativity took a back seat to graphics tinkering. You didn't need to actually come up with a new idea, just take a little science fiction, a little horizontal scrolling and a primitive jump-over-or-blow-it-up sequence, give it enchanting graphics, balloon tires and a foot-tapping, original sound track and it was a hit! The game was called **Moon Patrol** and, when it was new, it was just the cutest thing gamers had ever seen.

"Cute" games grow less dominant with every tick of the clock. Sooner or later, players bite through the sugar and begin to wonder "where's the beef?" Home videogames such as

Kaboom, **Freeway**, **Megamania** and **Plaque Attack** were joined on computer and in arcades with **Sneakers**, **Preppie**, **Frogger**, **Jawbreaker** (both versions), **Popeye** and **Pooyan**. Some are good, some are bad — but unlike the Clint Eastwood western, *none* of them are ugly.

Cute games are still produced, often to great sales success. **Quest For Tires**, based on Johnny Hart's popular comic

venge, is due this Christmas season.

Electronic games have occasionally attempted comedy, but usually edge more toward slapstick, whacko-with-the-pig-bladder business. It started with an offshoot of the cute genre: the dumb-funny-but-cute type. This type of game is best exemplified by the **Donkey Kong** and **Mario** contests.

When Nintendo created **Donkey Kong**, humor was merely one of many ingredients the designers employed. Its success or failure was not determined by its hilarity level. Games are designed to be played again and again, and even the Marx Brothers lose their dazzle after four consecutive viewings.

Of course, one form of game humor will ways be with us: sick humor, as it was dubbed in the 50's. Who can forget the legendary **Fireman**, **Fireman** theme, seen in several electronic formats in the midst of the **Space Invaders** frenzy? This game consisted of maneuvering a net horizontally as children leaped from a blazing inferno of an orphanage. If successful, the baby bounced from net to ambulance and safety. One miss, however, and the child sprouted angel's wings and flew offscreen.

Pacific outraged the coin-op world a few years ago with **Shark Attack** (not to be confused with Apollo's 2600 game of the same name), in which divers were snatched in the jaws of the killer fish as the water clouded with disturbingly realistic-looking blood. Even more unsettling was the fact that the player was cast not as the diver but the *shark*, complete with "chomp!" button!



PLAQUE ATTACK (ACTIVISION)



QUEST FOR TIRES (SIERRA)

strip, has proven a winner. The audio is cute and the graphics are near-cartoon quality; while the play-mechanic is challenging enough to keep gamers on their toes. A sequel, **Grog's Re-**

GO FOR THE FUNNYBONE



REVENGE OF THE BEEFSTEAK TOMATOES (FOX)

On computer, sick humor is evident in Thorn/EMI's **Orc Attack**, where heads fall off, orcs are crushed like bugs or burned alive as players defend a fortified wall set in medieval times.

Some of the funniest *sounding* games are often the most mundane. "Drol" is French for "funny", but aside from the cute landscape and whimsical characters, Broderbund's **Drol** is a horizontally-scrolling, multi-level shoot-out, pure and simple.

Sure, **Revenge of the Beefsteak Tomatoes** (a title "borrowed" from "Attack of the Killer Tomatoes", a horror film satire), **Attack of the Mutant Camels** and (especially) **Communist Mutants from Outer Space** sound hilarious. In fact, all the humor in these contests can be found on the label.

Accuracy counts, too, in the laugh grabbing sweepstakes. Little touches of realism, such as the interfering fan in Data East's coin-op **Tag-Team**

not based on some piece of relatively trivial realism, but on how downright *human* those little on-screen surrogates can be. In **Boulder Dash** from First Star, players guide a short-tempered little digger through a maze of boulders balanced precariously atop one another. Wait too long to input a movement and little Rockford puts his hands on hips and begins impatiently tapping his foot.

Recently, slapstick games have been making a strong comeback. In the coin-op world, Atari's **Food Fight** and Mylstar's **3 Stooges** are leading the way, while on the home front, the real advances in terms of laughing at our electronic contests are coming from the increasing intelligence and wit being seen in adventure, strategy and role-playing games. As designers become more sophisticated, the games they program can provide much more imaginative responses to user commands.

For example, humorous touches keep a serious, money-minded game like **M.U.L.E.** (Electronic Arts) from being heavyhanded. At the start of a player's turn, the computer might flash messages with either good or bad news, ala Monopoly's Chance cards. "Your M.U.L.E. was judged "best built" at the colony fair," reads one message, awarding the gamer a cash prize. Bad omens, like "You lost \$200 betting on the two-legged kazanga races," deplete the ol' cash reserves.

In Sierra On-Line's **The Dark Crystal**, the normally-serious computer narrator tosses the occasional pun or bad joke at unsuspecting adventurers. When Jen, the hero, tries to chop a vine to use as a rope, the computer responds, "I'm sorry. Jen can cut no vine before its time." Take that, Orson Welles!

Infocom's **Planetfall** was the first adventure game to be billed by its creators as humorous. While the game leaves all the challenge and puzzle-solving aspects of adventuring intact, it also introduces a childlike, hypersensitive robot sidekick named Floyd. This mechanical marvel is so human, he even gets tears in his eyes when his feelings are hurt.

Adventures have even reached the point where they can laugh at themselves. Trapeze Software's **Twisted Tale** pokes fun at the conventions and



ATTACK OF THE MUTANT CAMELS (HES)



M.U.L.E. (ELECTRONIC ARTS)

Wrestling, add immeasurably to a game's charm. Being able to shatter the backboard in Electronic Arts' **One On One** (and, in some versions, see it swept up by a disgruntled maintenance man) is a funny plus, as is the managerial option to "Throw the fight, we can use the money" in Sierra's equally impressive **Championship Boxing**.

Other times, the little touches are

idiosyncrasies of the classic adventures. Though not a perfect program, *Twisted Tale* is an important game in that it casts a cynical eye at the cliches of the "Run-to-Castle, I-don't-know-what-a-'runtocastle'-is" school of adventures. As its name implies this is a twisted tale indeed, where stories and clues spiral within one another and the comfortable bromides of adventure gaming have all been tossed out the window.

The signs are healthy. *Wit* is replacing the simply cute, and even the seemingly slapstick, madhouse contests have a strategic method to their madness. Broderbund's **Spare Change** casts the player as an arcade manager, attempting to keep his machines stocked with coins while contending with a pair of whacko "Zerks" — arcade game characters who've come to life and are attempting to steal enough tokens to break out! As the manager, players must collect tokens in a large vat (as well as keeping the cash register stocked from the safe's supply of coins) in order to move up in play levels. At the end of each round, the Zerks perform a little skit, and the next level is revealed. Since there are two Zerks and only one manager, the game provides several means of distraction, growing in charm and number as play moves along. Put a token in the juke box, for example, and those Zerks are instantly afflicted with a case of Happy Feet. Or drop a token in the phone and the two gossipy little goofs run to the receivers to chat. There's also a popcorn machine that keeps them enraptured and, for the arcade operator himself, a slot machine on the final level. Complete this rack to win a "Zerk Show", an arcade machine that allows any of the Zerk skits to be performed on command.

Going even further are the various versions of **Gremlins** from Atari (except for the 2600 version, which is both awful and a totally different game), where the hero has to keep those Mogwais dry, eliminate the Gremlins, and watch the refrigerator after midnight. Mogwais and Gremlins alike love to watch television, and even turn it on themselves, then sit transfixed by the tube.

This Christmas season brings us **Spy vs Spy** from First Star, based on the classic Prohias strip from Mad Maga-



SPY VS. SPY (FIRST STAR)



DARK CRYSTAL (SIERRA)



BOULDER DASH (FIRST STAR)

zine. A dual perspective screen following each spy's movements gives this number slapstick, wit and the cutes, all at the same time. True to the comic strip, the object is to set traps to catch the opposing spy — without being trapped first.

The sophistication, of course, is only beginning. These are the first fumbling steps toward the integration of genuine laughter into our game playing. Even speech synthesis has been made available directly onto software without the involvement of separate units. Just as **Space Fury** gathered chuckles with its haughty announcement, as play began, "Ah, a creature for my amusement!" and Pacific got yuks in **Thief** with its continuous police radio sound effects, new products will take this much further. Regional accents, dialects, an incredible variety of speech from boarding school British to dese-dem-and-dose will keep players giggling for years to come.

For a very long time, electronic gaming had it too easy. Like the ador-

able child whose pranks were forgiven because he was "so cute", electronic gaming has entered its awkward age. Today's designer knows a prettier spaceship is still a spaceship.

Chances are that the games we play — and laugh at — will continue to contain a little Oscar Wilde and a little Three Stooges. What matters is how well it's done. After all, even old Oscar must have enjoyed a pie in the kisser occasionally.

To your joysticks, fellow users, and start laughing!



PLANETFALL (INFOCOM)

PROGRAMMABLE PARADE

Videogames for Every Taste and Age: From Dr. Seuss to Major League Baseball and the Return of Frogger

CONGO BONGO

Coleco/ColecoVision and Adam/\$29.95

Congo Bongo is back, and it's better than ever! What sets this incarnation of the popular arcade game apart from previous versions is that it contains not two of the four original screens, but three.

This sounds minor, but in fact, the Coleco version of *Congo Bongo* is much better than any other yet released. Not only are the graphics of the game's jungle locales well-rendered, but play-action is improved immeasurably.

The story behind *Congo Bongo* is well known to most: the giant jungle ape Bongo has stolen the possessions of a certain explorer. The player must control the movements of this explorer in his quest for revenge.

Like previous home adaptations of this game, *Congo Bongo* contains the screens "Waterfall Pass" and "Lazy Lagoon" (the former is a fun but overly simple climbing and jumping contest, and the latter is a **Frogger** clone in

Zaxxon-like three-dimensional perspective). This *Congo Bongo* also contains the screen "Rhino Ridge," which involves the interesting play-mechanic of charging across a rhino-infested plain while ducking into sparsely scattered mole holes to avoid occasional stampedes. Incidentally, the player can't stay in a hole indefinitely — after a certain amount of time, a mole appears and kicks the player out.

Technically speaking, *Congo Bongo* is wonderful, well up to Coleco's high standards for graphics and sound. Control is a breeze, as the handicap of moving a character around a diagonal perspective is overcome by having the player hold the controller on a slant.

The logical question is whether someone who already has an earlier version of *Congo Bongo* should buy this new one. However, for anyone who has not yet purchased a copy of this exciting cartridge, Coleco's new rendition is ideal.

(Charles Arday)

WORLD SERIES MAJOR LEAGUE BASEBALL

Designed by Eddie Dombrower
Mattel Electronics/Intellivision
with CPU/Cartridge

It's very rare that any electronic simulation is not surpassed within months of its release, but Intellivision's **Major League Baseball** remained state-of-the-art from the time of its release in 1980 up till the release of Gamestar's **Star League Baseball** for the Atari computers. Not too shabby for a mere videogame.

From the beginning, however, players bemoaned the lack of a solitaire option and Mattel was promising a revamped version, to be entitled **All Star Major League Baseball**.

These days, however, Intellivisions and the modular computer add-ons languish in closeout stores around the country, and that long-awaited program, now called **World Series Major League Baseball**, can be had for under ten dollars. For that matter, the CPU sells for under \$30, so Intellivision owners could pick up both the computer and the baseball game for about the cost of most modern software. Another ten bucks and you can probably pick up an Intellivoice to listen to the play-by-play with which this game comes equipped.

When designer Eddie Dombrower started working on this game, he was obviously an inspired man. Instead of providing yet another simulation that gave players the feel of playing baseball, Dombrower has created a game that communicates the sensation of watching baseball on television.

Pitcher-batter confrontations are depicted via a camera perspective from left field. Runners leading off base are seen in a series of windows across the top third of the screen. After a ball is hit, the "camera" switches



CONGO BONGO (COLECO)



instantly to the fielder nearest the sphere.

There are problems with this approach, however innovative it may be. Owing to its spectator, rather than player, orientation, this game is a delight to watch, but hell to play. The bewildering camera shifts make it virtually impossible for the player to figure out which fielder is being maneuvered. The hitter-batter perspective makes spotting the strike zone a challenge beyond all reason, especially since the bat and ball never actually make contact, even on hits.

Another visual frill is a special "baseball card" still for each player in the line-up prior to his coming to bat. However, the player's names are all made-up, making real hardballers wish that actual players could be slotted in.

Nonetheless, *WSMLB* is a treat, if a somewhat antiquated one. Dombrower's reach exceeded his grasp, but the result was an interesting, different game.

(Bill Kunkel)

BEAMRIDER

Activision, 1984/5200/\$22.95

Beamrider started its gaming life as an offering for the Intellivision. Due to its widespread acceptance and critical acclaim Activision made it available in other formats, including the Atari 5200.

Like most of Activision's translations, this first-person outer space blastation bears a striking resemblance to its direct ancestor. Still, it doesn't suffer from such close proximity in looks, play action, and graphics/sound performance. Enough "tweak-

ing" has been done for it to advantageously use the SuperSystem's superior capabilities.

After launching an unshielded light ship from the bowels of a space station to do battle among the webs of a 99-sector grid encircling Mother Earth, compucommanders travel horizontally along a blue beam at the lower edge of the video screen. Fifteen enemy spacecrafts per level, assorted debris, and miscellaneous alien obstacles blaze down the simulated three-dimensional net trying to send you nowhere fast!

Not only do objects race towards you, but they shoot too! The red energy squares launched by the saucers can be particularly difficult to spot amidst the numerous items flashing by at near warp speeds. The closer these forms get to the bottom edge of the net, the faster they travel.

Depressing the main fire button dispatches a laser lariat capable of destroying most, but not all, of the enemy arsenal. Space rocks are impervious to this firepower. Reserve ships aren't. (Replacement ships whisk down the rotating beams too. Catch them to stay in the fray longer and get bigger end-of-round bonuses.)

The secondary action button lets loose with one of three torpedoes available per sector (round). Use them wisely, for they're meant to take out the Sector Sentinel transport ship which crosses the far reaches of the grid after the saucers have been dispatched. In a bind the torps'll clear a path through normally invulnerable objects. But fast hands and a keen eye prove to be better long-term defenses.

The first few rounds can be considered the appetizer before the main

course. Every second round, up to and including the 14th, sees the addition of a new type of threat. Space jockeys really have to be on their toes if they want to free Earth from the evil tyranny which has enveloped it.

Audio effects are minimal, being limited to warnings and explosions. On the bright side, the utter destruction of a saucer sounds as if it came from a "Star Wars" movie!

Graphically speaking, the 5200 *Beamrider* is an improvement over the Intellivision version. The major changes can be seen in the detail of the advanced nuisances and the Sector Sentinel.

There are two problems, though: one with the standard controllers; the other with the game itself. Attaining high scores means getting different joysticks, a remedy most 5200 fans have already faced up to. The other problem is a noticeable flicker which occurs primarily in the distant saucers.

Annoying as these foibles are, they don't lessen the challenge and sheer excitement of *Beamrider*. If you like fast action thrills, get on the beam!

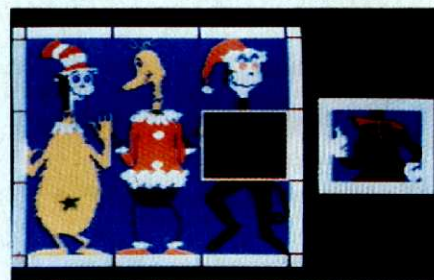
(Ted Salamone)

DR. SEUSS' FIX-UP THE MIX-UP

Coleco, 1984/ColecoVision/Cartridge/\$30.00

The announcement that Coleco had licensed the inimitable Dr. Seuss storybook characters for use in a videogame first appeared almost a year ago. Since then, it seems, the people at Coleco have been working on this game, holding back on its release until it was just right. Well, it's not perfect, but it comes close.

Dr. Seuss' Fix-Up the Mix-Up is basically an electronic version of those old sliding-piece puzzles, the kind that had one space missing and fifteen movable pieces that one could slide in all directions until a picture or a message was formed. In the case of this game, players form a picture from the mixed up pieces of three well-known Dr. Seuss characters (the computer



DR. SEUSS FIX UP THE MIX-UP (COLECO)

PROGRAMMABLE PARADE



chooses from a library of six characters, including the Grinch, the Star-Bellied Sneeches, and, of course, the Cat in the Hat). Using the joystick or keypad (the game comes packed with a directional overlay for kids who don't know how to use a joystick), the player maneuvers the pieces around the puzzle area, trying to align them in the correct order. A pleasant tune plays throughout the game, and though there is a time limit to beat for extra points, the game continues even after the timer has run down.

On the easiest level, the player has only to reposition nine large pieces in a three-by-three grid. The pieces are large, and the characters displayed on them are easily recognizable. On higher levels, the player can choose from a layout of sixteen or twenty-five pieces to work with, some of which might be turned upside down at the start of the game.

By using the entire screen to display only three characters, the game achieves a marvelous sense of detail; the characters actually look like the creatures that they are supposed to represent. When a figure is completed, it springs to life in a bit of animation along with a different lively bit of music. This game fulfills any expectations that could have built up over the past year: it's cute, fun to play and captures that elusive Dr. Seuss quality perfectly.

Dr. Seuss' Fix-Up the Mix-Up is a game for young children that isn't based on the adventures of some new fad piece of merchandise (Remember "Kool-Aid Man" and "He-Man"?) and doesn't have the word "educational" displayed prominently on the packaging. The only problem is that one gets tired of seeing the same characters over and over again, and kids might get bored with the repetition.

Then again, the game is fun, and it has plenty of variety to keep gameplay interesting, as well as the virtue of familiar and lovable characters. It might not enjoy the enduring popularity of the books almost all of us cut our "reading teeth" on. The chances are, however, that *Dr. Seuss Fix-Up the Mix-Up* will enjoy a success of its own for some time to come.

(Charles Ardai)

FROGGER II: THREDEEP

Parker Brothers/2600

Frogger II is a tribute to videogame sequels. Better than the original *Frogger*, it actually refines the original's play-mechanic and provides a fresh gaming experience based on well-known factors.

It's quite astonishing how much pure fun, diversity, and outright entertainment is packed into this cart. Parker Brothers has really outdone itself with *Frogger II: Threedeeep!* Not only is it more intriguing and playable than *Frogger*, it actually looks, plays, and sounds state of the art, all on the lowly 2600. The people who put this one together deserve a great deal of credit!

Threedeeep! refers to the number of different screens solo players guide the frog through. From beneath the waves to surface shenanigans and airborne aerobatics, lily lovers will have a field day! The various scenarios are tied

Aside from some minor problems, Frogger II may be a flawless 2600 game.

together through the common thread of hopping, jumping, and climbing.

As in the original, gamers guide their favorite amphibian past horrible dangers lest they go "Splat!" (rather convincing audio effects, these!). Fiendish fish, menacing sharks, deadly dragons, and overprotective mother ducks have replaced the motor vehicles. Logs and diving turtles are still around, joined by Larry the eel, deadly submarines, whales, and free-thinking hippos.

Mama Duck will take *Frogger* upstairs if he leaves her babies alone and lands on her back. Once there, butterflies flutter about, providing tasty morsels for an otherwise famished froggie. Eat cautiously though, each bite puts a hole (or widens an existing one) in the cloud cover. One miscue



FROGGER II (PARKER BROS.)

as for eating air bubbles and lily pads. Points for the latter are earned only if the screen they're tallied on is properly completed before Frogger "climbs" his way to the others. The same applies to bonus points awarded for every butterfly snack.

A charming little ditty is included to liven up the action. It's not really needed however, needed however, for *Frogger II* comes with its own adrenalin.

If there is a fault it lies with the number of on-screen objects displayed simultaneously. So many critters and objects are visible at any one time that some heavy flickering can be seen, particularly on screen two when Frogger leaves his log perch for the safety of a lily pad. The Zeppelins and Larry are also hard to identify due to lack of detail.

Aside from these minor problems, which are almost a given for such an ambitious undertaking on the 2600, *Frogger II* is flawless. It might even be Parker's best 2600 game yet.

(Ted Salamone)

and it's back to terra firma.

Birds, Zeppelins, airplanes, and Junonia White Bat round out the aerial

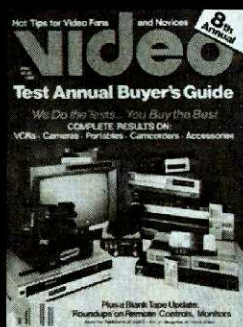
environ's inhabitants.

Bonus points are awarded for pre-countdown screen completion, as well

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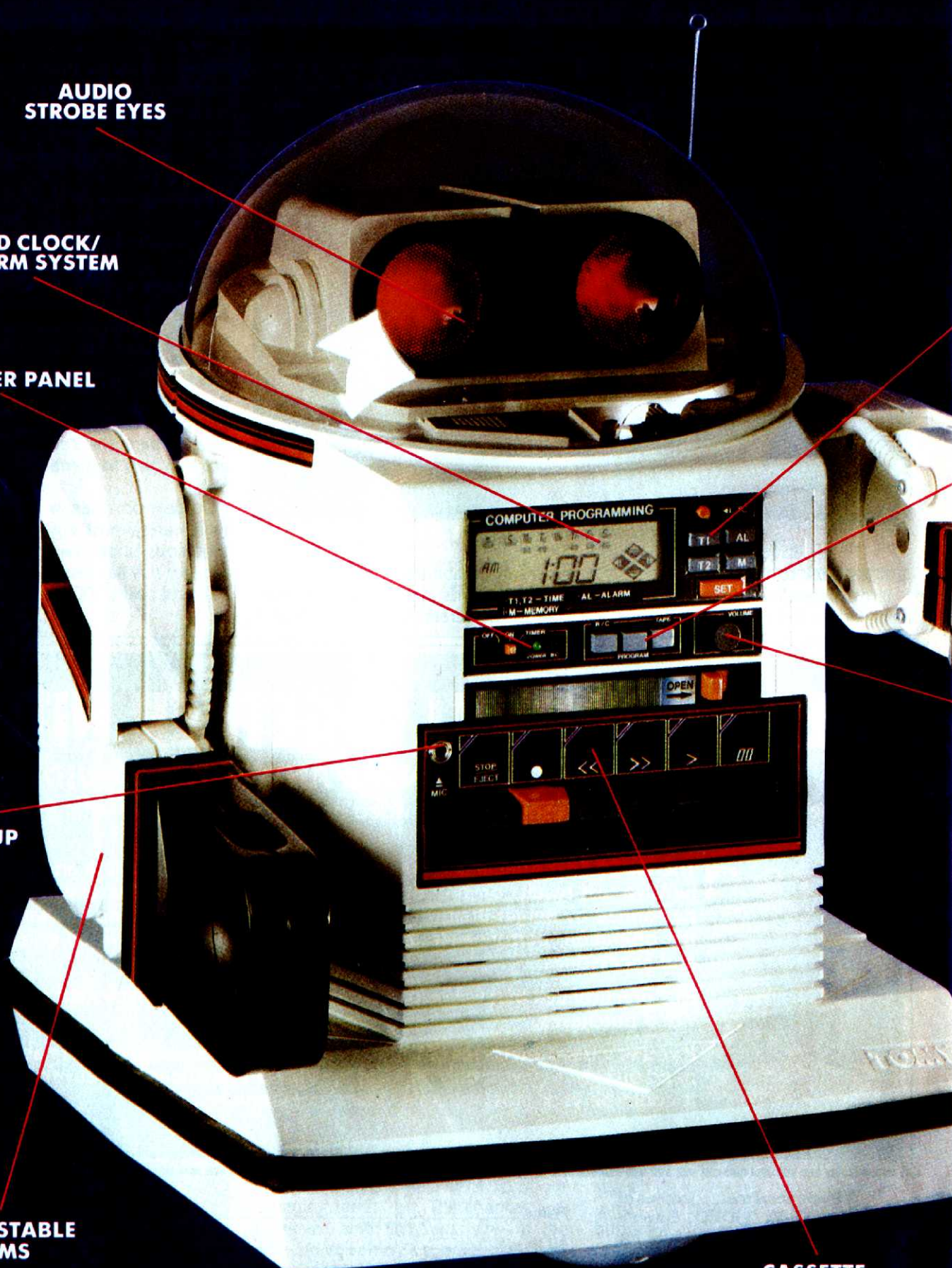
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Add Fun To Home Entertainment

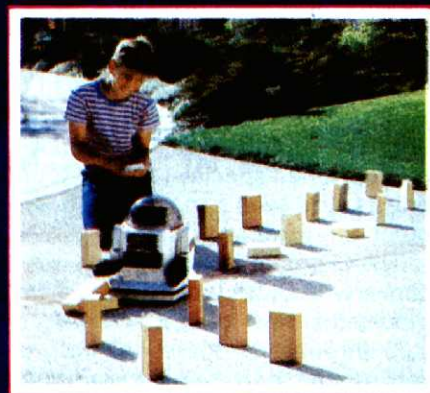
By JOYCE WORLEY

Long before R2D2 stole our hearts in "Star Wars", ages prior to HAL's chilling murders in "2001: A Space Odyssey"; even in advance of Brigitte Helm's metallic performance in the Fritz Lang classic "Metropolis", robots excited our imaginations. Dreaming of tireless servants to ease mankind's burdens, anticipating their unfailing accuracy, and prompted by visions of a future when all odious chores are done by stoical mechanoids, there's hardly anyone who hasn't longed for the future to hurry up and arrive.

While our eyes were fixed on this idealized future, the science of robotics progressed, albeit rather slowly.

Unfortunately, the homemaker's helper won't be here in time to run the vacuum before company comes to Sunday dinner, or even to take over this summer's gardening chores.

Instead of coming into our lives like itinerant handymen, ("Wash your windows, Lady?") the first robots for home use are entertainers. They provide a good opportunity to get people accustomed to using mechanoids, while teaching the basics of simple



Putting the Omnibot through its paces with the Master Control.



He doesn't do windows, mow the lawn or diaper the baby, but Tomy's Omnibot will butle snacks and wake you up gently.

robot programming. This makes them educational. . .but that doesn't even start to explain their appeal. The bottom line, when talking about the new home entertainment robots, is that they are fun to own and play with.

If cute could kill, the Tomy Omnibot would be deadly. Standing roughly 16 in. from his rollers to the top of his plexy-glass dome, Omnibot was a 7-day programmable memory, and can be operated by the remote controller that comes with the mechanoid. He's powered by six AA batteries and a rechargeable power cell to keep the robot running continuously for up to four hours before recharging. He has a built-in cassette tape deck, and an digital alarm clock to provide up to four separate settings. There's a built-in microphone, special robotic sound effects, and even a snack tray so Omnibot can serve your friends.

The Omnibot is very easy to use. It comes with a well-written manual that guides the new robot owner step by step through its operation, from inserting the batteries, charging the power pack and setting the alarms, to programming the robot and operating it by remote control. There are no mysteries to overcome, and the manual is organized sensibly so that the owner will learn each detail of the machine's operation in logical order.

Omnibot has adjustable arms that the owner manually positions as desired. His two hands are different; the right ends in a receptacle and the left has a gripper to grasp and carry small items. A removable tray fits over Omnibot's hands, enabling the tiny worker to carry a couple of sodas, cookies, or any object up to 2.2 pounds.

Omnibot's built-in digital clock and cassette deck combine to make him a

truly programmable robot, instead of just a remote controlled toy. Record the moves you want Omnibot to make on cassette tape. Add robot sounds, messages and music; then set the clock for when you want Omnibot to spring into action, or start the program by remote control, using the Master Control Unit.

Omnibot tooling down the hall is a sight to see, when he's playing back the robotic sounds and messages programmed onto the tape. His strobotic eyes flash, synchronized to the sounds from the speaker system, as he executes his moves.

He's a jimdandy alarm clock, and will awaken each member of the family with personalized good cheer. He's

great for delivering snacks at a party; the guests are guaranteed to love this little butler. Take him for a walk around the neighborhood if you want some attention. Play music through the cassette; Omnibot's flashing eyes will counterpoint the melody. You can even sing along, using the microphone in the Master Control Unit.

Admittedly, you can't expect too much real work from this little charmer, unless you count stealing hearts. He's not going to mow the lawn, vacuum the rug, or tidy up your room. But fun is still worth something, and the safe and easy-to-use Omnibot is worth his weight in entertainment gold!

G



THE TOMY TRIO

There are three members of the Tomy robot family. On the left is the littlest mechanoid, the Dingbot, about \$10. It spews out a stream of robotic invective and changes directions when it bumps into any obstacle. On the right is the Verbot, about \$65,

remote controlled and voice programmable to move, blink, smile, pick up and deliver items. In the center is the Omnibot, about \$300, a walking, talking droid that stores up to a week's worth of programs on its own built-in tape deck.

New Products

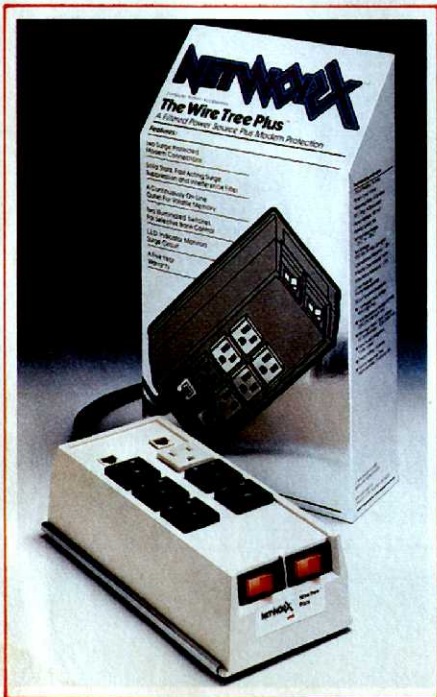
WIRE TREE SURGE PROTECTORS

Networkx/\$39.95-\$99.95

Every computer is at the mercy of the hand that feeds it; the electricity that powers it can just as easily wipe it out. "Dirty" power — surges, spikes and interference from radio frequencies — are said to account for more than 50% of all computer service problems.

Networkx manufactures a line of "insurance policies" for computers — surge protectors that can be plugged into a wall outlet and run interference for delicate electronic equipment. The line includes the Wire Cube (one outlet), the Wire Tree (four outlets) and the Wire Tree Plus. The six-outlet Plus features separate switches for CPU and peripherals, including modems, and can be mounted on the computer work station. All of these are solid state and have an RFI filter as well as a "silicon transient suppressor" to absorb surges.

Networkx computer accessories come with a five-year warranty. The company can be reached at 203 Harrison Place, Brooklyn, NY 11237, or by calling (212) 821-7555.



SUPER BOX 64

Handic Software/\$149.95

Super Box 64, for the Commodore 64, is literally loaded with features. The compact, well-built unit plugs into the cartridge expansion slot of the C-64 and includes an IEEE-488 interface which allows Commodore users to connect parallel disk drives or other parallel peripherals.

The *Super Box* is also capable of supporting three game or utility cartridges simultaneously, with selector switches provided for each slot. Additionally, a reset switch is provided for "warm boots."

The IEEE-488 feature utilizes a jumper cable which connects to a resistor within the C-64's case. The advantage of using the method of connection is that no RAM is used to drive the unit.

Super Box 64 is available from Handic



Software, Inc., Fellowship Business Center, 520 Fellowship Road, B206, Mount Laurel, NJ 08054.

CARDCO MT/1 MONITOR TUNER

Cardco/\$199.95

If you own a monitor that you use with your computer, here's a device that allows it to do double duty. The **Cardco MT/1** is a separate tuner module that can be used with virtually any monochrome or color composite video monitor, permitting you to view your favorite TV shows when you're not computing.

The compact unit features a video jack and two audio jacks, as well as a connection for the antenna. The dual audio jacks are for multiplex stereo sound, and the tuner is cable-ready, so you can enjoy MTV or other multiplex-sound programs in glorious stereo.

Additionally, the *MT/1* features a wireless infrared remote control unit which handles channel selection, on/off and volume controls for added convenience.

The *MT/1* is available from Cardco, Inc., 300 S. Topeka, Wichita, KS 67202.

THE INCREDIBLE MUSICAL KEYBOARD

Sight & Sound/\$49.95

Sight & Sound Music Software, Inc. has released **The Incredible Musical Keyboard** for the Commodore-64 Computer. Its lightweight plastic assembly fits over the top of the C-64 to allow users to create, compose and play musical compositions easily. Included with *The Incredible Musical Keyboard* are a program disk, a Melody Chord Songbook and stickers for the keys which designate the notes for those who can't read music. No prior musical knowledge is necessary.

The Incredible Musical Keyboard can be used interactively with the other music software products in Sight & Sound's line, including the Kawasaki Synthesizer, Kawasaki Rhythm Rocker, and Music Processor.

The Incredible Musical Keyboard is available from your local electronics dealer or directly from Sight & Sound Music Software, Inc., 3200 South 166th Street, New Berlin, WI 53151.



TEST LAB

By TOM BENFORD

What has 128K, weighs seven-and-a-half pounds, has a built-in disk drive, 40- or 80-column screen capability, sports both Dvorak and Qwerty keyboard layouts and can be had for under \$1300? There's only one machine that carries this bill of features as standard equipment: the Apple IIc!

Initial announcements about the IIc sounded too good to be true. I immediately went down to the local Apple dealer, looked at it, played with it a bit, and bought it on the spot. I was hooked.

TECH SPECS

The IIc is compact and powerful, with a built-in carrying handle on the back of the unit which performs double duty as a prop-stand for the computer when in use. The actual physical

Apple IIc: The e's Successor

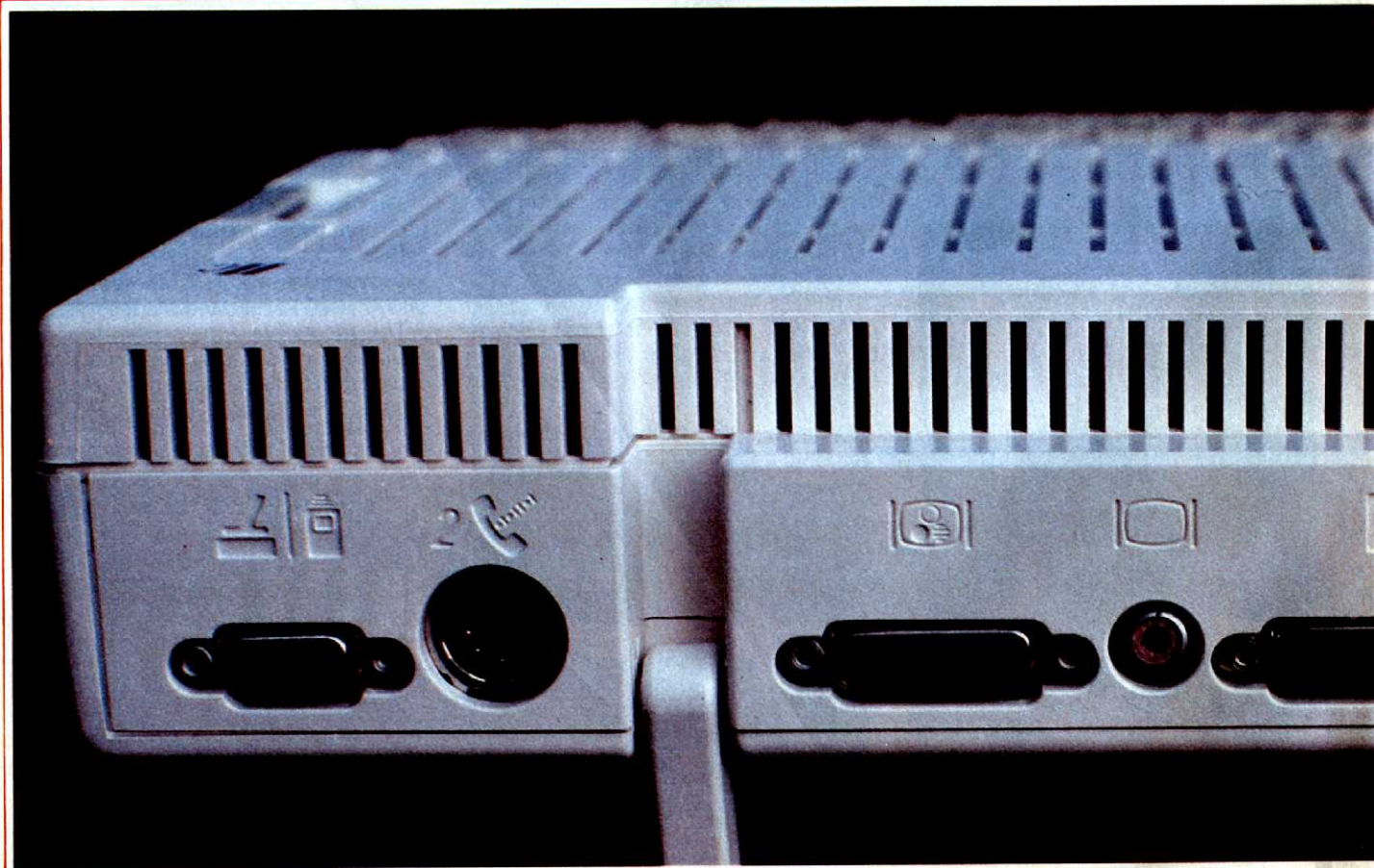
size of the IIc is 11-1/2 x 12 x 2-1/4 inches — small enough to fit comfortably inside the average attache case. It's absolutely amazing how many features, including a disk drive, can be neatly tucked into so compact a package.

The IIc uses a 65C02A MPU (microprocessor unit), a more advanced version of the venerable 6502. This new microprocessor is a CMOS (complementary metal-oxide semiconductor) product that provides over two dozen additional opcodes for pro-

gramming, uses less power and generates less heat. Bank-switched memory allows users access to the 128K RAM, a neat and efficient way of expanding the MPU's 64K address range. 16K of ROM is also included for handling the system monitor, BASIC interpreter, mouse and other I/O routines.

The built-in half-height minifloppy drive has a formatted capacity of 143K. There's also a port on the back of the IIc for connecting an optional external disk drive as well.

Apple intended the IIc to be a "closed unit." Stated simply, that means that you can't get inside the computer to add additional boards; the IIc doesn't have any expansion slots. What it *does* have, however, is a multitude of ports that can handle the needs of most users. Several of the expansion cards that are options on



the IIc are already contained within the IIc, so this is no big deal. The ports, all of which are found on the rear of the IIc, include two RS-232 serial ports, an external disk drive port, a video extension jack, an RCA-type video jack, a single joystick/mouse port and a power-connector port.

The IIc runs on DC current. A transformer supplied with the machine handles the conversion of AC from the wall outlet into the DC current needed. This is particularly interesting, since we're sure to see battery power packs cropping up shortly for the IIc. Imagine a battery-powered computer of this power with its own built-in disk drive! Nothing else available in this price range can touch it.

A built-in speaker takes care of the audio needs of the IIc, and it has a dedicated volume control. An ear-phone jack is included as well, so that you can enjoy your gaming sounds without disturbing others nearby. If you prefer, you can use headphones instead but the output, alas, is only in mono.

THE SOFTWARE STORY

Due to the slight differences of the 65C02A as opposed to the 6502,



The Apple IIc with peripherals, including printer and modem.

some slight software compatibility problems may be encountered (although we haven't encountered any — yet). About 95% of the available Apple software should run without any problems, though. The IIc runs ProDOS as well as DOS 3.3 software, which covers the vast majority of software titles.

Supplied with the machine is a series of five excellent tutorial disks. These tutorials are interactive with the user and the titles include **Keyboard Instruction**, **Getting Down to BASIC**, **Introduction to Logo**, **Apples at Work**,

Apples at Play, and **The Inside Story**. It takes about nine or ten hours to go through all the disks, and they're an excellent way to get acquainted with the new IIc, the products available for it, and the general world of Apple-dom. Owing to the high degree of compatibility with other Apples and the instant success of the machine, third-party software developers and distributors are showing lots of interest in the IIc market, and the software floodgates are starting to open.

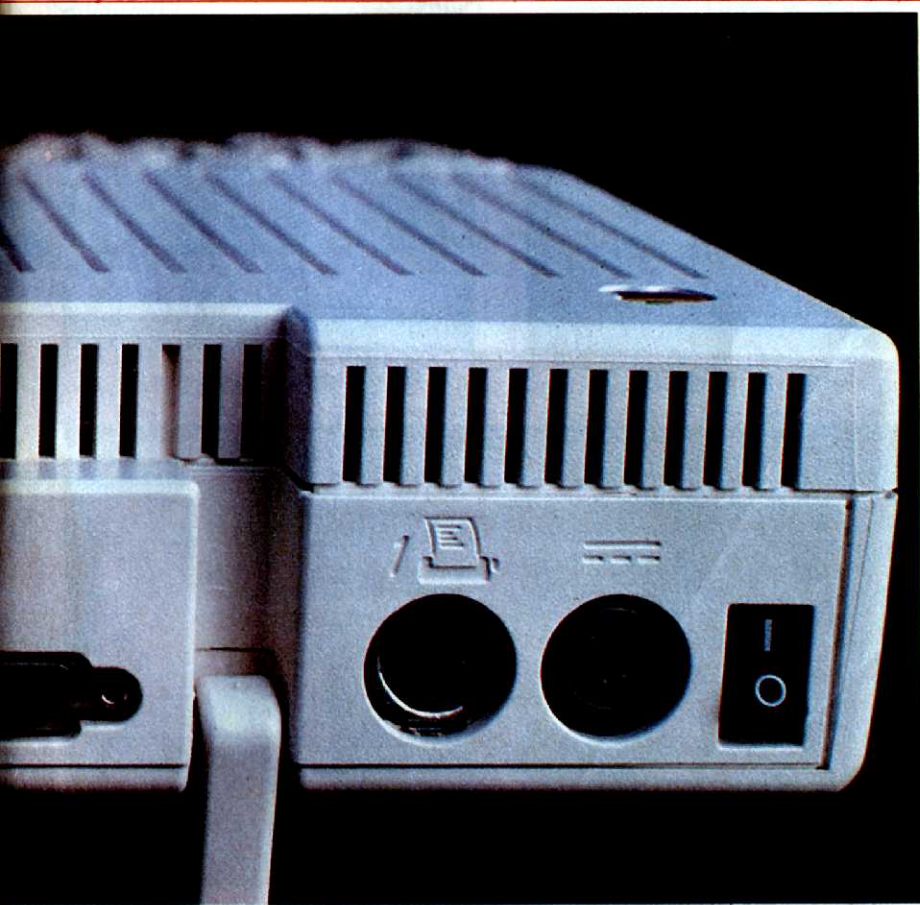
THE GOODIES

Included in the festive carton with the IIc are many items that will allow you to get started immediately. An external power transformer, RF modulator (for connecting the IIc to a TV set), monitor connection cable, owner's manual, set-up manual and the five-disk set are all included with the computer. The usual promotional materials, consisting of Apple-logo decals, etc., are also packed in the carton, along with the owner registration card.

THE OPTIONS

Apple is marketing several IIc-compatible peripherals. An external disk drive is available for \$329, the color Scribe printer for \$299, a 9-inch green phosphor monitor for \$199, and a mouse for \$99 are all available now. Shortly (perhaps by the time you read this) Apple will release its flat-panel LCD (liquid crystal diode) screen. This screen displays text in a format of 24 rows x 80 columns, and should be able to accommodate game software as

Rear view of the IIc, showing I/O ports and the handle which doubles as a prop stand.



TEST LAB




The IIc is a handsome, compact unit that delivers everything it promises.

OVERALL IMPRESSIONS

Everything about the IIc says "I was well thought out, designed and produced by people who *obviously* know what they're doing." It's a wonderful machine that really packs a punch!

Apple's marketing strategy is focused on the home, rather than business, user. For a home system, you'd be hard pressed to ask for something the IIc couldn't deliver. Business and commercial users will still favor the IIe, since it can be expanded and configured for specific applications. Several "heavy-duty" peripherals, such as a hard disk, won't work with the IIc, but they *will* work with the IIe; Apple plans to continue making the IIe for the higher-end market which requires additional expansion features.

The IIc is a handsome, compact unit that I could find no fault with. It delivers everything it promises and more. Technologically, it sets a new high mark for the competition to shoot for — and they'll have to be expert marksmen to shoot down the new Apple. 

well. Carrying cases for the IIc and monitor will also be offered, and IIc owners can expect to see combination battery packs/carry cases on the marketplace soon from third-party manufacturers.

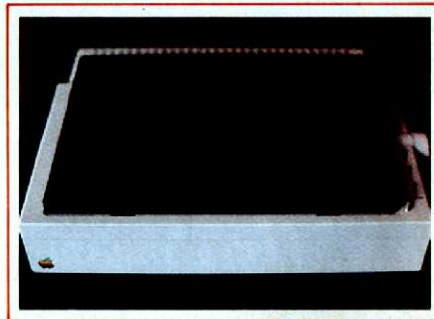
THE KEYBOARD

The full-size typewriter-style keyboard of the IIc is a dream to use, with its light but firm touch. The layout looks identical to the IIe, with the exception of the reset key; it now resides above the escape key, instead of near the delete key.

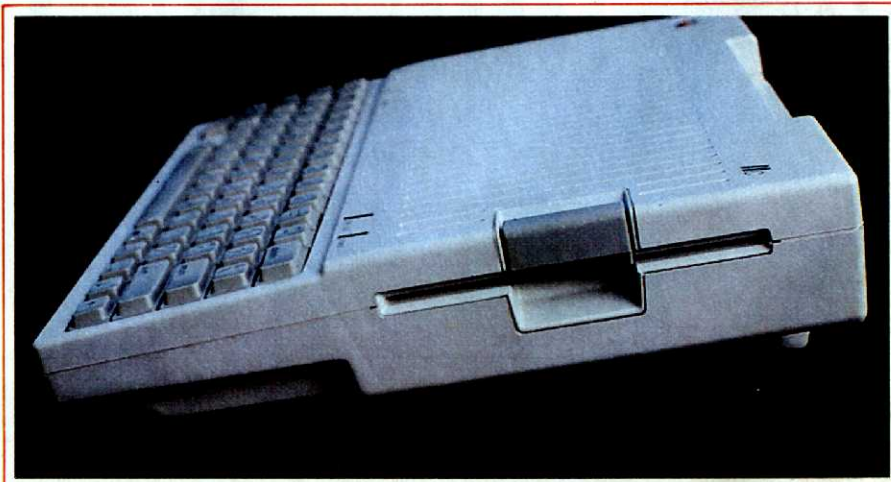
The keyboard is *switchable* from the Qwerty (standard typewriter) layout to the ergonomic Dvorak layout. In the Dvorak configuration, all of the vowels are controlled with the left hand, while the most-used consonants are accessed with the right. The Dvorak keyboard has been around since the early 1930's and its popularity is rapidly growing, as evidenced by Scarborough's release of **Master Type**, which includes lessons for both the Qwerty and Dvorak keyboards. Without a doubt, the Dvorak option of the IIc will do much to win converts.



The Apple IIc keyboard.



Apple's Scribe printer for the IIc.



Side view showing built-in disk drive.

Q&A

By THE GAME DOCTOR

The Doc In Atari-Land

For over three years now, your humble Game Doctor has done all the things required of a practitioner in the field of hard-and-software medicine. My patients have faithfully packed our over air-conditioned waiting room, thumbing through back issues of Electronic Games while their overheated computers and magnetized disks receive healing treatment.

To get some rough answers about a ticklish question the doc did the unthinkable - I pretended I wasn't the Game Doctor, but rather, just another gamer-in-the-crowd. This decision took me on a quest as convoluted and trying as anything the mind of Lord British ever imagined. It all started with a question. . .

Q: *I recently purchased an Atari 800XL and feel Atari is giving me the runaround.*

First of all, I needed a translator disk since neither of the game disks I purchased would boot. So I called a toll-free number (800-538-8543) that Atari has listed in some of its literature. After reaching this number, a recording instructed me to dial a new number (408-745-4851). I tried the new number for a few days but no one ever picked up the phone.

I realize Atari is having its problems, and that Jack Tramiel is making some sweeping changes, but you'd think that they could at least keep a service line open. I was hoping you guys might be able to help me locate some translator disks.

(Eric Van de Pol, Nevada, Iowa)

A: As a result of this impassioned query, the Doc went on a little odyssey of his own into the world of Atari. Of course, Eric's was far from the only letter EG has received with this plaintive cry. Our entire staff, therefore, has been laboring mightily to reach Atari and get some sort of response to this question: Is There Anybody Out There?

A steady assault on Atari's offices finally yielded the information that the

toll free (800) numbers were down — had, in fact, been down for months. Still, I was assured that the service number (408-745-4851) was still in operation. Trying the number, I got a busy signal. Again and again and again I dialed — and all I ever heard was that infuriating, pounding sound that tells one the line is busy.

Bowing to the inevitable, I dialed the main office. Answering the phone at the other end was a charming and very helpful receptionist who assured me that the 745-4851 number was still working. She even attempted to connect me twice, but without success. Nonetheless, she then presented me with a valuable piece of data: The address to which damaged hardware (under warranty only) can be sent for repair is 390 Caribbean Drive, Sunnyvale, CA 94089.

Thanking her, I hung up and tried the service line one more time. Still busy. A New York operator checked the line and verified that it was, indeed, in use. We have since continued the effort to break through this wall of busy-signals.

As a result of this tireless investigation on the part of EG's editors, Atari has genuinely attempted to clean up its act. More phone people have been hired to man their service number (408 745-4851). As we go to press, there are three full-time employees on the line with more scheduled to join them in the immediate future.

On the question that started all of this, Atari XL owners can obtain a translator disk by writing to the company's Customer Relations Dept.:

TRANSLATOR
Atari Corp.
390 Caribbean Drive
Sunnyvale, CA 94089

Make sure to write "Translator disks" on the outside. 600XL and 800XL owners should enclose \$9.95 and \$2.50 for handling and shipping. Owners of the 1200XL can get one free with proof of purchase.

Also, as Diana Goralozyk of Atari's Customer Relations Dept. points out,

in all fairness. Atari did not cause the problem necessitating these translator disks. She says that since Atari published the specs on their new XL line far in advance of their appearance, the blame should be laid at the doorstep of those third-party software manufacturers who failed to take the proper steps to make their software compatible.

Of course, there was no way that existing software could be retroactively modified, so the burden remains with Atari. Frankly, the Doctor feels that a T-disk should have been included with each XL computer.

And wouldn't that have avoided a major mess! Okay, now how about a few more questions.

Q: *Up until early Spring ('84), Parker Brothers was advertising a James Bond game based on "Octopussy." The game involved a fight atop a moving train with laser guns and authentic music (as the ads stated). Then, when the game came out, it had the scenarios from "Moonraker", "The Spy Who Loved Me", etc.*

What happened? Did I miss something? (James M. Goldstein, Cleveland, OH)

A: I remember the earlier version of .007 to which you refer; matter of fact, the silicon sawbones actually played the thing at a trade show over a year ago. However, it's far from the first time that a version of a certain game has been dumped, even after extensive advertising. Usually, however, only aspects of the game are changed, unlike this instance where the whole program was replaced.

The reasons behind such moves are a mystery. Maybe a Parker executive decided that "Octopussy" wasn't a sure 'nuff sell; maybe a higher-up doesn't like games staged on trains. In any case, since the earlier version does, indeed, exist, it may yet appear some day.

Q: *In the December '84 EG you offered an EG T-shirt for the first to identify the Easter Egger from Atari's Adventure. The designer was Warren Robbinett and his entire name (not just his initials) appeared behind the not-so-secret panel.*

(Paul "PAB" Sunjenis, Vineland, NJ)

A: Way to go, PAB. Wear your T-shirt in good health.

And that shuts us down for this month, my loyal petitioners. **G**



EG's Spring

By BILL KUNKEL

Companies have been bought, sold and shut down with bewildering frequency, but the new arcade titles just keep on coming. After all, what kind of year would it be without a new **Pac-Man** sequel?

This time out it's called **Pac-Land** and is the first game to feature the new, Saturday morning cartoon Pac-Man and his entire family. There are nineteen different scenarios in this action/adventure contest reminiscent of Colecovision's **Smurf Rescue**.

Bally Midway will also offer **Timber**, a tree-chopping contest featuring hires graphics that use the same technology as last year's **Journey** and **Whacko** coin-ops.

Paccy isn't the only character who keeps turning up in game after game, either. Mr. Do is back for his fourth go-round with **Do's Run Run**. It isn't much on visuals, but the gameplay here is excellent, incorporating the best elements from a number of old Universal games (such as the "EXTRA" feature from **Ladybug** and the fruit from **Mr. Do**).

Remember Nolan Bushnel's Sente? Well, it's Bally/Sente now, and the partnership has turned out several fascinating entries for their new SAC conversion-games line. **Hat Trick** is a bird's-eye perspective two-on-two hockey contest with great visuals. **Goalie's Ghost** is **Pong** in the 25th Century, with its split-screen, head-to-head action (one-on-one games are the biggest trend in coin-ops right now). Most interesting, however, is **Trivial Pursuit**, the most successful boardgame-to-arcade translation ever achieved.

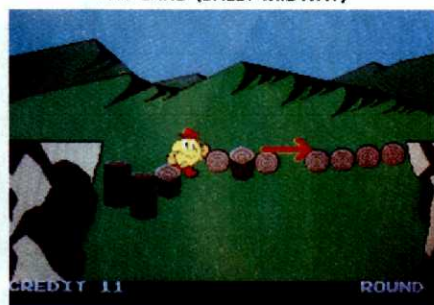
SUPER PUNCH-OUT (NINTENDO)



DO! RUN RUN (UNIVERSAL GAMES)



PAC-LAND (BALLY MIDWAY)



Coin-Op Preview

A Look At The New Coin-Ops

The most physically intriguing new coin-op, however, is certainly Sente's **Shrike Avenger**, part of its SAC II line. A conventional science fiction dog-fight program, this game is literally elevated to new heights by its encasement in a hydraulic cabinet. Remember the dogfight sequences from "Star Wars" with Luke sitting at the anti-aircraft turret gun? *Shrike Avenger* duplicates the entire effect with a game that rises, dips and tilts at the touch of a button.

Cinematronics has a pair of science fiction action contests, **Freeze** and **Scion**. Aside from these, and SNK's **Vulgus**, science fiction titles are in short supply these days.

Most of the arcade action these days centers around sporting simulations. Nintendo's following up its successful **Punch-Out** with **Super Punch-Out** and is offering an excellent game for video duffers in its "Vs." series, **Vs. Golf**.

Konami introduced **Super Basketball**, featuring full-team, scrolling simulation, and **HyperSports**, a successor to **Track & Field**.

Three new titles from Atari, however, follow no trends and, in fact, may well represent the next big thing in arcade games: strategy.


Although plagued by its trackball controller problems, **Marble Madness** is a fascinating, three-dimensional wild ride over and around a tableau right out of the film "Tron." Players maneuver an on-screen ball-bearing over a background created with slightly warped video Leggo-blocks.

Paperboy is a scrolling, lushly-drawn contest in which the player

rides a bike all over town, delivering newspapers by using a pair of handle-bar controllers.

Indiana Jones & the Temple of Doom, although not completed at press time, promises to be one of the most revolutionary coin-ops to appear in arcades this year. Not a laserdisc game, *Indie* features gorgeous, hi-res visuals in a multiple-scenario barn-burner certain to heat up arcades the world over.

Finally, following in the footsteps of *Exidy*, which has already produced

coin-op versions of four home computer titles by First Star Software (including **Boulder Dash**), IREM (International Rental Electronic Machines of Osaka, Japan) is offering an arcade version of Broderbund's smash hit, **Lode Runner**. The graphics are enhanced over the home version, but devotees will recognize the configurations of the playfields instantly. The difference lies in the control scheme, which substitutes sometimes-confusing function and movement buttons for a joystick. 

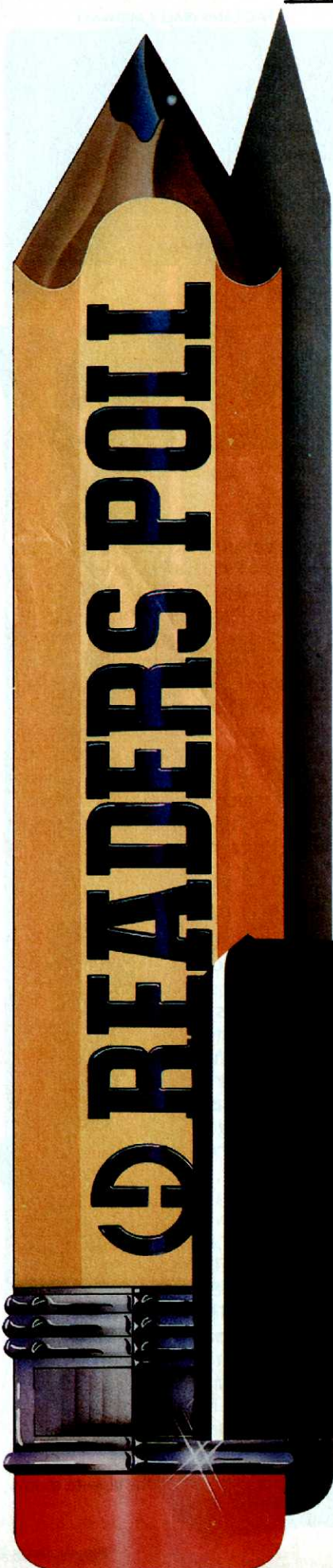


PAC-LAND (BALLY MIDWAY)

HYPERSPORTS (KONAMI)

LODE RUNNER (EXIDY)

Sega Enterprises, Inc.
Parker Brothers
HesWare
FROGGER II
SUPER ZAXXON



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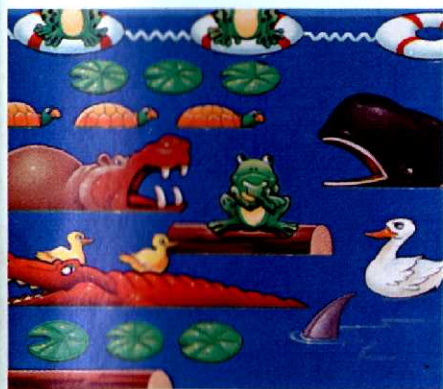
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NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW			
		NEW	NEW	NEW	NEW	NEW	NEW	NEW			FROGGER II
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INTRODUCING FROGGER II THREEEDEEP AND SUPER ZAXXON.