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JUNE 1984

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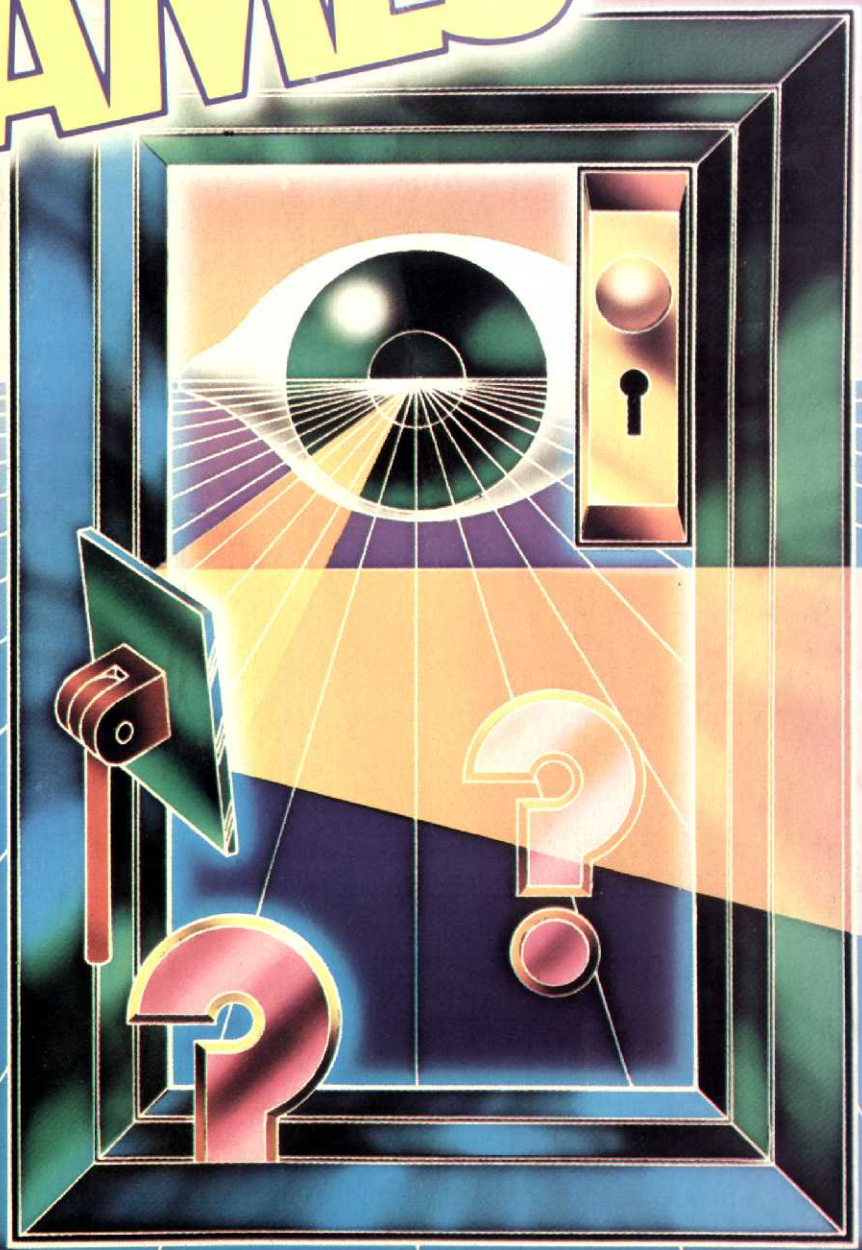

MURDER GAMES

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40 GAMES FOR PCjr

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WEIRD THINGS TO DO WITH YOUR COMPUTER

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SCORE!

London Blitz

The streets of London are threatened with deadly V-1 rockets. You, as a member of Her Majesty's Royal Bomb Squad, must disarm each one before its timed fuse detonates. A variety of bombs with infinite defusing combinations make for endless nail-biting excitement.

A combination of logic, skill and a little luck is required in this highly-acclaimed computer masterpiece.

Cassette for Commodore 64®, $20
Disk for Commodore 64®, $25
Playing time: 20 minutes to 3 hours;
Intermediate complexity level

Legionnaire

The beat of barbarian war drums echoes through the valleys of Gaul; the crack legions of Imperial Rome are on the move. Outnumbered two-to-one by multitudes of heathen infantry and cavalry, you, as Caesar, must select your terrain and tactics carefully or face annihilation. Beautifully detailed scrolling map lets you examine the entire battlefield in this realtime game of ancient warfare.

Cassette for Atari® (16K) and Commodore 64®, $35
48K Disk for Apple® II, II + & IIe, $40
32K Disk for Atari® Home Computers, $40
64K Disk for Commodore 64®, $40
Playing time: 20 to 45 minutes; Intermediate complexity level

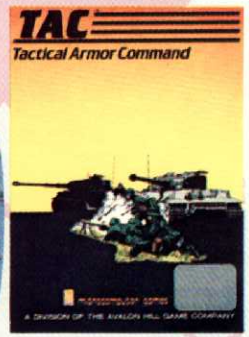
A World of Games

Panzer-Jagd

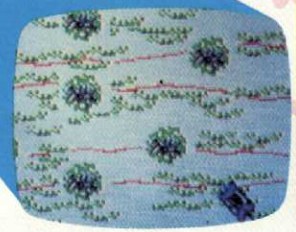
The endless Russian steppe trembles again with the rumble of invading panzers, and this time you are in command! Your units include platoons of Panthers and PzKw III's with infantry support, all maneuvering over an ever-changing battlefield map. Off-map artillery support is also available to help you combat the hordes of Russian units.

Not just an arcade shoot'em up, **Panzer-Jagd** requires careful tactical planning and, above all, a determination to win. Hi-res graphics and sound effects.

Cassette for Atari® (32K) and Commodore 64®, $25
48K Disk for Atari® Home Computers, $30
64K Disk for Commodore 64®, $30
Playing time: 1-4 hours; Intermediate complexity level



T.A.C.



The wooded plains of Germany are furrowed once again by the steel monsters, the armored fighting machines of WWII. In this realistic tactical wargame, you choose your force from a variety of WWII era armor and infantry. Design your own scenario or select one of those provided and pit your German, British, American or Russian forces against that of a friend or play solitaire vs. your computer.

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Playing time: 20 minutes to 1 hour; Advanced complexity level

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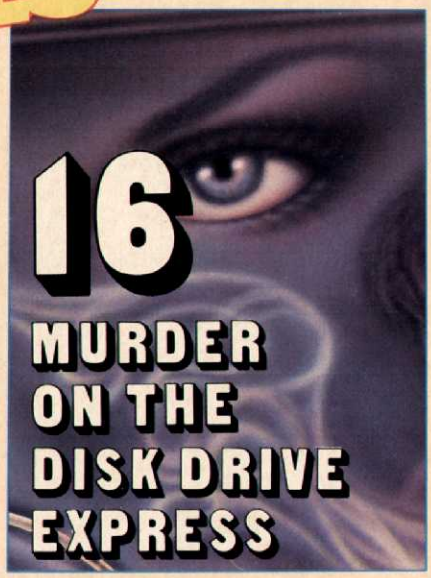

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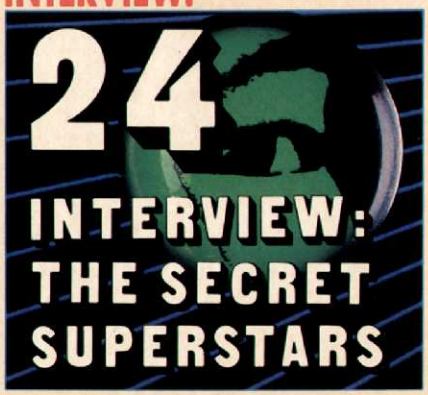

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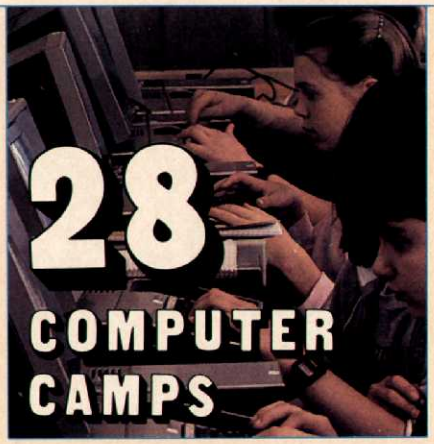

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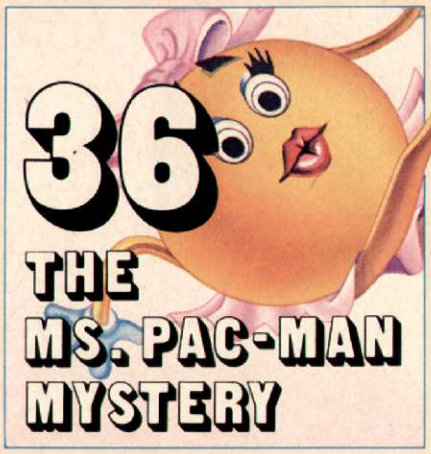

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LETTERS TO THE EDITOR

FOUR YEAR GAME

For about four years I've been searching for the way to find Warren Robinette's secret message in Atari's *Adventure* game. Can you print the solution in your magazine?

Dan S. Cutter

It's too long and involved to include here, but the full solution is explained in Tom Hirshfeld's book, How to Master Home Video Games, *published by Bantam.*

WHAT'S THE SCOOP?

Why do you have a gossip column and a hotline page? They're basically the same thing.

Laura Thompson

In order to give you the most up-to-the-second news, we write our Hotline page at the last possible minute and just type it out on the word processor in our office. The gossip column is put together a few weeks earlier.

ARCADE PIRATES

In regard to your article about video game pirates, what should I do if I spot one?

Danny Bollinger

If the arcade owner doesn't know one of his games is a ripoff, he should be notified. But if he is aware that his games are fakes and continues to display them, it might not be a good idea to tell him about it. Call the game's manufacturer.

ALL KIDDING ASIDE

In your August/September issue I read about *Donkey Kong Senior.* At the bottom you said "Just kidding, guys!" Does that mean you were just kidding?

Joey Briglia

Yes.

***Above, Space Ace,* the follow-up to Don Bluth's historic *Dragon's Lair.* Laser access time has been cut in half. At right, *Art Master* on the Vectrex system. It allows you to draw and do animation on the screen.**

SEMAG TERCES

Hey, in your first three issues you hid a secret game somewhere in the pages. But I didn't see one in the February issue. What went wrong?

Thomas Carson

Maybe you just haven't found it yet!

PICASSO'S VECTREX

I enjoyed your article *Become a Computer Picasso.* But I don't have a computer. Are there any cartridges that let you draw on the screen with a *video game* system? I have a ColecoVision and VCS.

John Fischer

The only one we are aware of is Art Master, *for Vectrex. It lets you draw and animate figures.*

THE UNKNOWN COVER

What was that on the cover of your last issue?

Frederick Rawley

That was Space Age, *Don Bluth's second laser game, which followed the historic* Dragon's Lair.

MAKE UP YOUR MIND

I purchased your magazine because of the title and was sorely disappointed. I expected a magazine that dealt solely with computer games and found that most of your pages were devoted to video games and coin-op games.

Steven A. Feathers

We feel that home video games and arcade games are computer games just as much as games played only on computers. A glance at any bestseller list of computer games will show games like Zaxxon *and* Frogger*—which started out as arcade games. To ignore these games would be severely limiting the scope of the magazine.*

OUT OF BUSINESS

You might like to know that the National Video Exchange Company listed on page 17 of your February issue went out of business and owes me $145 for a bunch of my cartridges.

Jeff Silva

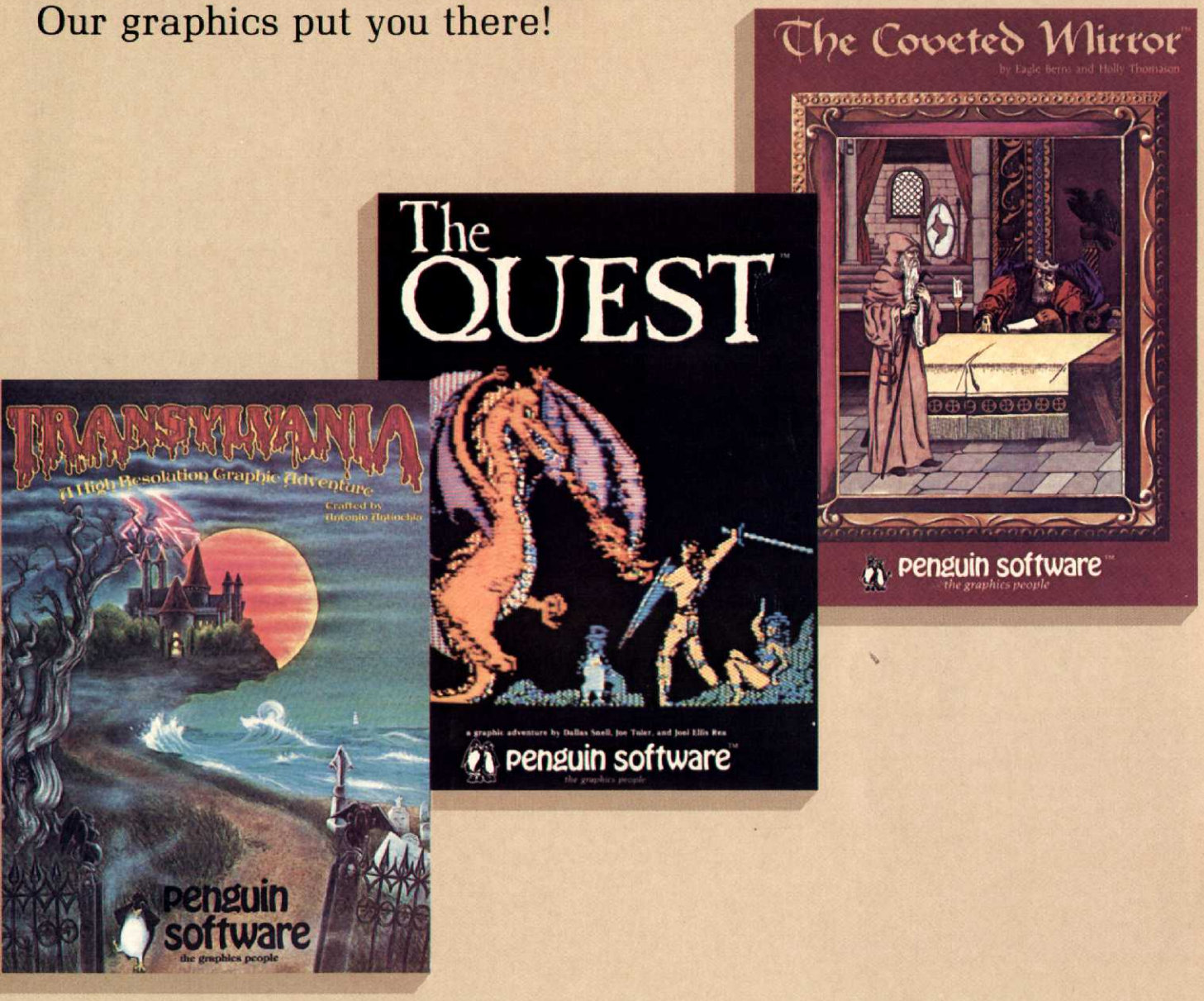
FOR THE RECORD...

Penguin Software's *Graphics Magician,* as stated in "Become a Computer Picasso" in our April issue, is *not* in the public domain. The program is copyrighted, and contains copyrighted subroutines. You can use them in your own games by paying a one-time royalty fee of $1 and crediting Penguin on the package if the game is sold. For licensing applications, write Penguin Software, 840 Fourth Ave., Geneva, IL 60134.

Got a question? Got a gripe? Just want half a million people to see your name in print? Punch your initials in here, partner, and write: Letters to the Editor, Computer Games, 888 7th Ave., New York, NY 10106.

ADVENTURE

Our graphics put you there!



Thoughtful prose and stunningly detailed graphics by some of the best computer artists bring life to the Penguin Software adventure series. Whether in the beautiful detail of Transylvania, the expanse of The Quest, or the animation throughout The Coveted Mirror, our graphics make you feel like you're there, experiencing the adventure as you play.

The Penguin adventures are or will be available on disk for the Apple II series, Atari home computers, Commodore 64, IBM PC, and Apple Macintosh. And since they're from Penguin, price in 5¼" disk format is only $19.95 each. Other formats may be higher. Graphics created with The Graphics Magician.

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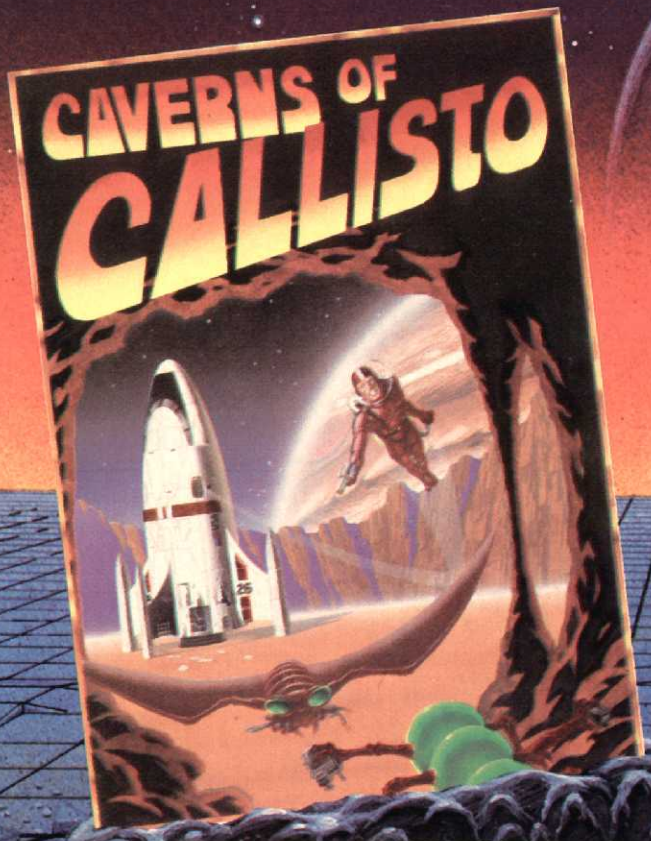
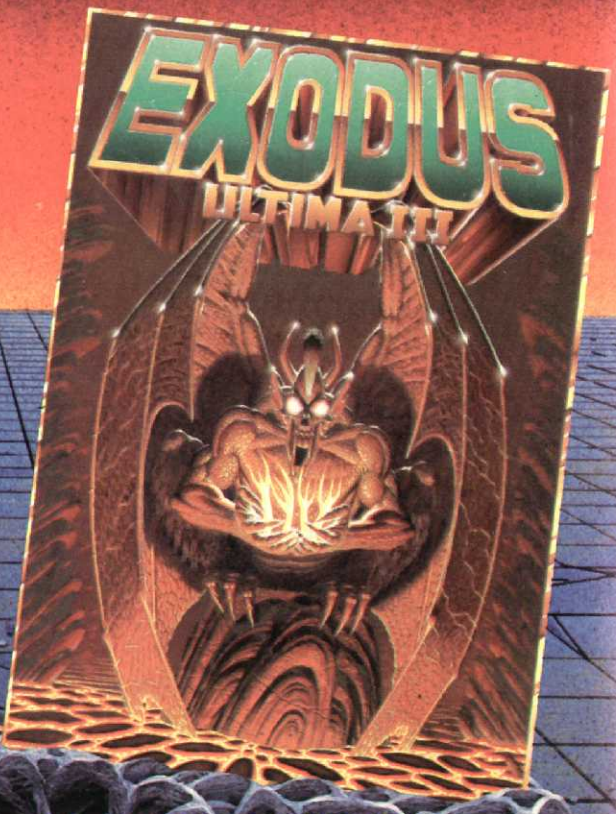
"Exodus: Ultima III, with a superior plot to match its superior gaming system, is a great game . . . it sets new standards for fantasy gaming state of the art."

Softline, November/December 1983

"Caverns of Callisto is a very challenging and enjoyable arcade game. I hope Origin Systems can continue to provide products of such quality." Core, December 1983



Created by Chuckles
$34.95
Apple and Atari.



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Apple version MOCKINGBOARD enhanced.

"Exodus: Ultima III . . . is fun and exciting to play and constantly intriguing." Softalk, November 1983

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HOT GOSSIP

Atari has signed an agreement with **Nolan Bushnell** to license products from **Androbot,** his robot company... **Activision** and Atari are teaming up to "use broadcast technology" to transmit software electronically into our homes. Coincidentally, that technology is being developed by Bushnell's **Catalyst Technology**... **Broderbund's** first games, **Hyper Head-On** and **Galaxy Wars,** had to be played sideways on American TVs... **20th Century-Fox, Paramount** and **MCA** are all shooting extra scenes for their new movies in expectation of turning them into **laser** games... Here comes the all-text **explosion! Infocom's** success will soon spawn a new industry. **Epyx, Synapse** and **Simon & Schuster** are about to release all-text games. S & S has signed superstar sci-fi writers **Robert Heinlein, Poul Anderson** and **Douglas Adams** to write their first interactive games. Adams will convert his **Hitchhiker's Guide to the Galaxy** into an adventure software series... Meanwhile, Infocom to produce all-text adventures for **children.** The first will be **Seastalker,** in which you captain a mini-sub to rescue an underwater research lab. Infocom is also busy at work on games with **graphics** and **laser** games... Speaking of lasers, look for a laser attachment to the Atari **5200** within a year... **DEC** has a computer called the **Rainbow** that has no **color** graphics... **Ken Uston's** PuzzleMania to be released by **Epyx.** Uston is also doing work for **Screenplay.** Ken, now that you're one of the manufacturers, can you still write **objectively** about the industry?... **Bill Budge** busily at work on **Robot Construction Set**... **Williams,** who blessed us with **Defender, Robotron** and **Joust,** has been acquired by **Bally**... **Bank Street Writer** is outselling Broderbund's games by more than two to one... The name of the vice-president of **Sir-Tech** is **Robert Sirotek**... **Synapse** now has a club that offers advance info on new games, t-shirts and posters. Write to Synapse Elite Club, 5221 Central Ave. #200, Richmond, CA 94804... Broderbund's smash **Lode Runner** to be made into an **arcade game** by a **Japanese** company... In the **Activision** design labs, they have a dead **Smurf** hanging from the ceiling. **Steve** (Space Shuttle) **Kitchen** has suggested developing a game called **Smurficide,** in which you shoot at Smurfs and **Strawberry Shortcakes.** Don't hold your breath for that one... **Epyx** doesn't beat around the bush. Their new baseball game is called **"The World's Greatest Baseball Game"**... The soothing voice on Synapse's **Relax** biofeedback device is that of company president **Ihor Wolosenko**... **Warner Software** has acquired "a substantial interest" in **First Star Software**... Before Activision's **Decathlon** was released, security was so tight that all employees were required to refer to it as **"Mastadon."** Nevertheless, we just got hold of a prototype cart **Activision** never released, titled **Cosmic Commuter.** It looks a little like **Megamania,** but faster and better!... **Imagic's Rob Fulop** now doing work for Activision... Newest **Guinness Book** of Records includes arcade game records for the first time—as tabulated by microprocessor Messiah **Walter Day**... **Adventure International** to release at least 12 graphic adventure games based on **Marvel** comics characters... Watch for a flood of **IBM PC lookalikes** from **Taiwan**... In **South Africa,** the **Red Cross** is in a tizzy because of **Time Pilot.** It seems there were complaints that players score points by shooting at parachuters bearing the Red Cross symbol. They don't realize that you get points for **touching** the parachuters, not **shooting** them. Of course, it helps to hold down the old fire button at the same time. See you next time!

Above, the screen of **Cosmic Commuter,** *a game Activision never released. At right, Nolan Bushnell, back in the games business and working with Atari. Below, Ken Uston's Fun & Games team, who are working with Epyx and Screenplay. That's Mrs. Uston at left, next to Bob "Blue Max" Polin.*

SEMAG EMAN

NEW PRODUCTS

THE MICROWAVE OF THE FUTURE

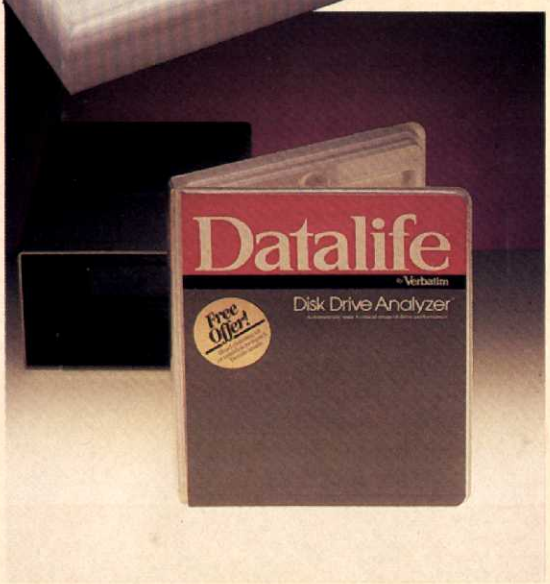
MicroWriter—the perfect peripheral for computer gamers—will work wonders for your high scores. That's because it's a handheld word processor that holds up to five double-spaced pages of text, and can be interfaced to a printer or cassette recorder. All letters and numbers are typed in by pressing a combination of the five keys, and they're displayed on a 16-character LCD screen. Text-editing features such as insert and delete are also provided for. But how's it going to increase your scores? Simple—when anyone in the family asks you to give up an ongoing game of *Zaxxon* or *Jump Man* so they can do some word processing on the computer, just hand them the MicroWriter and keep blasting away.

32K FOR THE VIC 20

Many of the best VIC-20 games—like *Temple of Apshai* from Epyx—require an expanded memory of at least 16K. The "Ramax" boosts a VIC's memory by a full 27K bytes, for a total of 32K RAM. It's compatible with all Super Expander games and any other VIC cartridge, and has two built-in connectors for carts. Gold-plated edges assure high reliability, and the six-months warranty on parts and labor makes this an exceptional bargain for $149. Apropos Technology (805-482-3604) also markets the "Ramax Jr." for $129 , which will give your VIC 24K RAM.

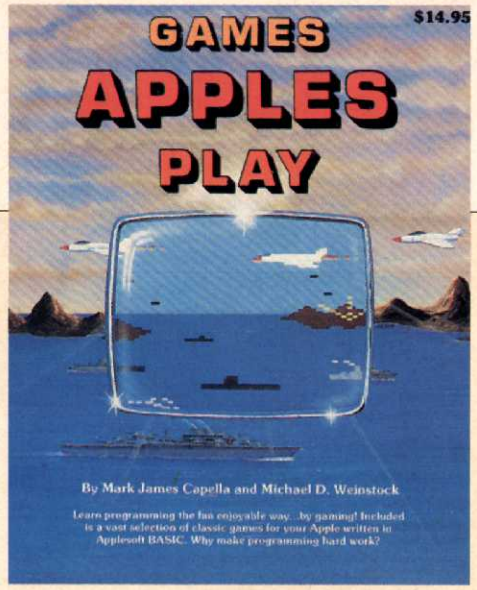
WOODEN WONDER

Your high scores will soar when you pop that Atari into a "Stick Station." The instant freedom it delivers will eliminate hand cramps and wrist fatigue—two of the most common causes of the dreaded "low score syndrome." The three-pound, solid poplar construction gives you the arcade-like stability necessary for accurate firing, and it can be placed on a table-top or rested in your lap. The "Stick Station" is available from Skywriter (502-585-4714) for $14.95 .



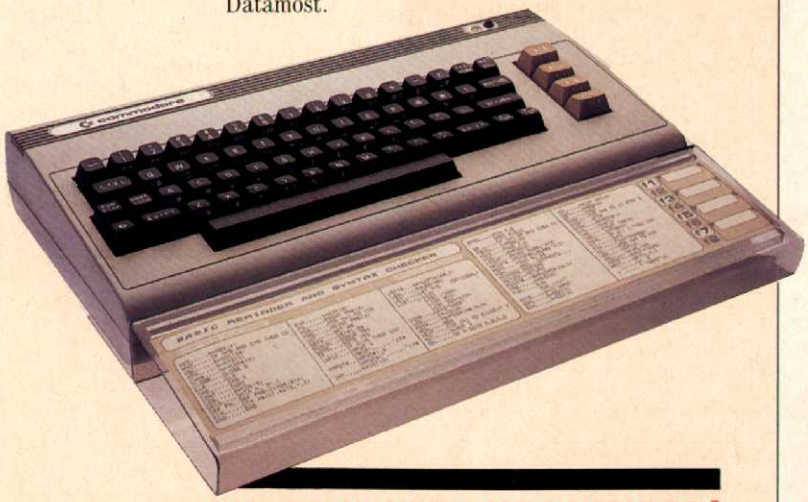
DRIVE-IN DIAGNOSTICS

Disk drives can drive you crazy, especially when they get the least bit out of whack and refuse to load games or other software. When your drive's cranky, you can boot Datalife's "Disk Drive Analyzer," which performs four vital tests on the machine's internal workings. It checks the radial alignment of the drive's read/write head and checks the disk speed, two of the most common problems. You can also test the drive's clamping mechanism and ability to read and write data to and from a disk. Each test features entertaining graphics related to the function of the test, so you're not just staring into a blank screen while waiting for the results. It sells for $39.95.



GAMES APPLES PLAY

One of the best ways to learn programming is to figure it out by yourself, with books like *Games Apples Play*, a collection of game programs that you can key in and run on the Apple. They make excellent examples of how games and other programs work, so you can learn a lot by studying them before typing the listings into the computer. The 38 games in this 270-page book include 38 adventures, action , arcade and word games. $14.95 from Datamost.



THE ERGBOARD HAS LANDED!

Next time the urge to erg strikes, hook up the "Ergboard" and have at it! It extends the base of your Commodore 64 to give you something solid to rest your hands on while typing or playing games that require keyboard control or input. Reference cards for BASIC and *Wordpro 3* fit under the acrylic surface, and you can write your own cards for use with various software. For $15.95, the Ergboard is available from Info-64, POB 958, Auburn, WA 98002. (Add $3 for shipping.)

WHAT'S IN STORE FOR YOU?

FUTURE RELEASES FROM THE TOP GAME COMPANIES

ACTIVISION
Pitfall II: Lost Caverns, Private Eye (VCS). Zenji, Warp Wars (AT). Baloony Bin (64). River Raid, Pitfall, Megamania, Keystone Kapers (AT, COL, IN). Beamrider (IN).

ADVENTURE INTERNATIONAL
The Hulk, Spiderman, Captain America (AP, AT, 64, TRS, PC, Adam)

ATARI
Taz (VCS). The Legacy, Mario Bros., Donkey Kong Jr., Millipede, Choplifter, Light Pen, Touch Tablet (AT).

ATARISOFT
Joust, Battlezone, Pole Position, Ms. Pac-Man, Moon Patrol, Galaxian, Jungle Hunt (AP, 64, VIC, PC, TI)

AVALON HILL
Computer Diplomacy (TRS, PC).

BRODERBUND
Bank St. Speller (AP, PC). Spare Change (AT, 64). Bank St. Writer, Operation Whirlwind, Matchboxes (64). Lode Runner (VIC, PC, 64). Skyblazer, Seafox, Mastertype (VIC). Serpentine (PC).

CREATIVE
I Am 64, In the Chips (64, PCjr). Creative Writer, Creative Filer, Creative Calc (PC, PCjr, 64). Bumblebee (64, PC, PCjr). Crisis Mountain (64). Pipes, Save New York (PCjr).

DATAMOST
Cosmic Tunnels, Mr. Robot and his Robot Factor, Tail of Beta Lyra (AT). Aztec, Swashbuckler (64).

DATASOFT
Juno First, Gumby, Heathcliff (AT, AP, 64, PCjr). Lost Tomb, Nibbler, Bruce Lee (AT, AP, PCjr). Sands of Egypt (AP).

DESIGNWARE
Spellakazam, Math Maze, Spellagraph, Trap-a-zoid (PCjr).

EPYX
Puzzlemania (AP, 64). Robots of Dawn, Fun with Words.

FIRST STAR
Boulder Dash (AT).

HES
Rootin' Tootin' (AT).

HOME COMPUTER SOFTWARE
Pro Golf, Pro Football, Riddle of the Redstone, Island Love, Alaskan Adventure (AP, 64, PCjr).

INFOCOM
The Sorcerer, Seastalker (All computers). *All* titles now available for TI and Kaypro.

IMAGIC
Demon Attack (PCjr).

PARKER BROTHERS
Gyruss, Stars Wars the Arcade Game, James Bond 007 (64, VCS, 5200, AT, COL). Chess (PC).

MUSE
Capture the Fuhrer.

PENGUIN
Expedition Amazon, Xyphus, Ring Quest, Magic Paintbrush (AP). The Quest (AT, 64, PC). The Spy Strikes Back, Spy's Demise, The Coveted Mirror, Minit Man (AT, 64).

RESTON
Flyghts of Fancie (AT, 64, PC)

ROKLAN
Diamond Mines (64, AT).

SCARBOROUGH
Patternmaker (AP, 64, PCjr).

SEGA
Star Trek III (AP, AT, 64, PC, PCjr). Congo Bongo, Star Trek, Buck Rogers (AP, PCjr).

SIERRA ON-LINE
King's Quest (PC). Snokie (AT). Championship Boxing (PC and PCjr). The Prisoner (AP).

SIRIUS
Wavy Navy, Critical Mass (64). Gorgon II, Type Attack (PC).

SPINNAKER
Jukebox (AP, AT, 64, PC). Alf in the Color Caves (AT, 64).

SUBLOGIC
Flight Simulator II (64, AT, AP). Night Mission Pinball (64, PC).

SYNAPSE
Dimension X, Enigma (AT). Quasimodo, Rainbow Walker, New York City (AT, 64). Midnight Patrol (PC). Slamball (64). Zaxxon, Necromancer, Zeppelin, Picnic Paranoia, Shamus Case II (64).

THORN EMI
Liberator (AP). Submarine Commander (AP). Computer War (TI).

VCS = Atari VCS, IN = Intellivision, 5200 = Atari 5200, AT = Atari Home computers, COL = ColecoVision, GEM = Coleco Gemini, VIC = Commodore VIC-20, 64 = Commodore 64, AP = Apple II, TRS = Radio Shack TRS-80, TI = Texas Instruments TI 99/4A, VEC = Vectrex, IBM = IBM PC, ODY = Odyssey²

HIT GAMES & HIGH SCORES

COMPUTER GAMES
1. *ZORK I (Infocom)*
2. *ULTIMA III (Origin)*
3. *LODE RUNNER (Broderbund)*
4. *FLIGHT SIMULATOR II (Sublogic)*
5. *PITSTOP (Epyx)*
6. *BEACH-HEAD (Access)*
7. *SARGON II (Hayden)*
8. *BLUE MAX (Synapse)*
9. *LEGACY OF LLYGAMYN (Sir-Tech)*
10. *ARCHON (Electronic Arts)*

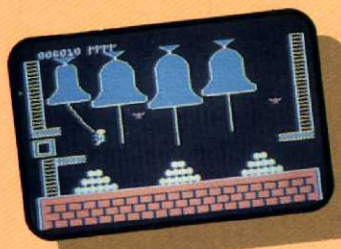
HOME VIDEO GAMES
1. *Q*BERT (Parker)*
2. *MS. PAC-MAN (Atari)*
3. *POLE POSITION (Atari)*
4. *POPEYE (Parker)*
5. *RIVER RAID (Activision)*
6. *CENTIPEDE (Atari)*
7. *KANGAROO (Atari)*
8. *PITFALL! (Activision)*
9. *ENDURO (Activision)*
10. *MR. DO (Coleco)*

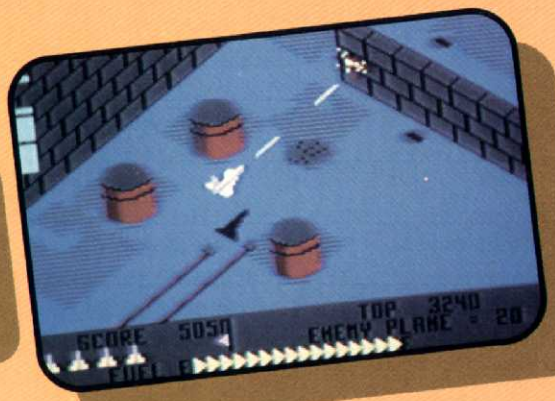
ARCADE GAMES
1. *TRACK & FIELD (Centuri)*
2. *POLE POSITION (Atari)*
3. *DRAGON'S LAIR (Cinematronics)*
4. *M.A.C.H. III (Mylstar)*
5. *MS. PAC-MAN (Atari)*
6. *STAR WARS (Atari)*
7. *BIRDIE KING II (Monroe)*
8. *GALAGA (Bally)*
9. *DISCS OF TRON (Bally)*
10. *ELEVATOR ACTION (Taito)*

HIGH SCORES
NIBBLER: 1,000,042,270
by Tim McVey
TRACK & FIELD: 89,970
by Mark Sellers
M.A.C.H. III: 307,300
by Allan Pearson
GYRUSS: 36,728,250
by Michael Bangs
STAR WARS: 70,207,984
by Brian Weissinger
CRYSTAL CASTLES: 857,689
by Eric Ginner
MS. PAC-MAN: 699,290
by Chris Ayra

Our thanks to RePlay for the arcade game list, to Walter Day and Twin Galaxies International Scoreboard for the high scores, and to Billboard for the home video games list, which is ©1984 by Billboard Publications, Inc., compiled by the Billboard Research Department and reprinted with permission.

ZAXXON FOR THE C-64!

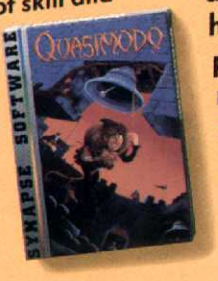




Quasimodo

Quasimodo knows who stole the crown jewels. He even knows where they are, but the soldiers just won't leave him alone! This multi-screen arcade adventure is a great combination of skill and strategy.

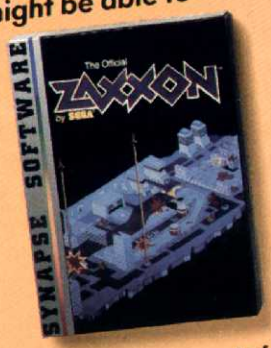
Commodore 64 disk & cassette



ZAXXON

At last, your favorite arcade game comes home to the C-64! Amazing 3-D graphics, a diagonally scrolling screen and incredible sound effects guarantee hours of space excitement. And if you practice hard, you might be able to meet the deadly ZAXXON himself.

Commodore 64 disk & cassette



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Slamball

Maybe you've played pinball before, but not like this! Up and down scrolling over 4 full screens, plus complete ball control and even a "tilt" feature in the best computer pinball game yet.

Commodore 64 disk & cassette

More C-64 Titles:

Blue Max, Fort Apocalypse, Shamus and Shamus Case II, Necromancer, Pharaoh's Curse, Zeppelin, Drelbs, Sentinel.

All Synapse entertainment titles are available at software dealers everywhere, or direct from Synapse for $34.95 ($39.95 for ZAXXON) plus $2 handling. Send check, money order or VISA/MasterCard number.

Write for a FREE Synapse catalog. Synapse games are also available for the Atari, Apple and IBM computers.

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THE COMPUTER GAMES GAZETTE

MORE BOUNCE TO THE OUNCE

Forget about Charles Atlas. As the bouncer in *Bouncer,* a coin-op game from Entertainment Sciences, you get to beat up on bothersome barflies, dribble them around, and throw them out windows. And if you get tired of all that, you can just knock over things and hit on the on-screen waitress.

With a trackball and three fire buttons, you control the Bouncer, first in a place called Hussang's Cantina and then in Gulley's, Studio 64 and The Ritz, where he wears a tuxedo. The troublemakers—named Soppy, Fatso and Romeo—are real pests, bothering the customers, Julie the waitress and a bald bartender. There's also something called The Thing, which likes to trip—not tip—the waitress.

Entertainment Sciences claims that *Bouncer* uses a million bytes of memory (compared with the 64,000 of most arcade games), and the screen looks more like a cartoon than computer graphics.

CALIFORNIAN PLAYS 19 HOURS OF CENTIPEDE

When you're as good as Perry Rodgers, after dropping a quarter in the slot, you don't plan to do anything for the next few days. Perry racked up 9,026,864 points at the arcade *Centipede* recently. He called it quits at 4:15 in the morning, after spending 19 hours at the screen.

Why did he do it? In order to win our "Win an Arcade Game" contest in the August/September *Computer Games.* "It has been a lifetime dream to own my own arcade game," Perry told us. It all paid off—Perry was the winner.

A REAL M.A.C.H.O. GAME

If Steve Ritchie is a pretty good shot with Mylstar's jet-pilot laserdisc game, *M.A.C.H. 3,* it's easy to understand. The company didn't pick him as spokesperson because he's famous. They picked him because he knows something about fighter jets. Ritchie, you see, is an ace.

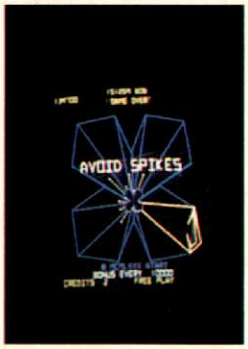
During the Vietnam War, Ritchie became the first Air Force pilot since the Korean War to shoot down five enemy planes. After 339 missions and enough decorations for a New Year's Eve party, Ritchie was commissioned to test-pilot the new F-15 Eagle, the jet on which *M.A.C.H. 3* is partly based. Now he's making the rounds as an exhibition fighter-pilot, gunning down enemy choppers and dodging heat-seeking missiles across America.

Just goes to show—Work hard and make sure you have the right stuff, and maybe someday you can represent a video game company.

USE THE FORCE, GEORGE

George Lucas may have invented the Force, but that doesn't mean he can score 200,000 at *Star Wars.* The creator of *Star Wars, The Empire Strikes Back,* and *Return of the Jedi* was recently presented with his own *Star Wars* arcade game at Lucasfilm's headquarters, located in Marin County, California.

The man in the right of this photo is not George's Obi-Wan Kenobi. It's Atari vice-president Don Osborne.



Video games speak the universal language. As proof, there's *Tempest*. Some models can, at the flip of an inside switch, warn you to avoid spikes in English, Spanish, French and German. Also, some *Pac-Man* machines have been spotted floating around with Inky, Blinky and the other monsters all given Japanese names.

Wait your turn.

JAMMING THE MACHINE

It had to happen. First, laserdisc games came along at 50¢ a pop. Now, rumor has it that the first 3D-laser-holographics adventure game will cost $21.75 to play. (For that kind of money, you can be sure that you'll get to do more than hack up a handful of skeletons and slay a wimpy dragon.) Seen above, an off-camera player has just jammed 87 quarters on an early version so he can play the next game.

CLASSICAL COMPUTER

Robb Murray likes to play the keyboard, only his instrument isn't a piano—it's a Radio Shack TRS-80. That's not so unusual, since Radio Shack and other companies make computer-music programs. But Murray, who works by day for a computer software company in Chicago, may be the first person to compose classical music on his computer and then put out a record of his works.

Murray took eight of his neo-Baroque compositions and had them pressed as a 45-rpm record. Called *Classical Mosquito!* because the computer-generated notes sounded to Murray like a mosquito buzzing around the room, the 12-minute record has gotten good reviews from computer and music magazines. With such success from his first recording, Robb may wind up conducting the Boston Pops via modem.

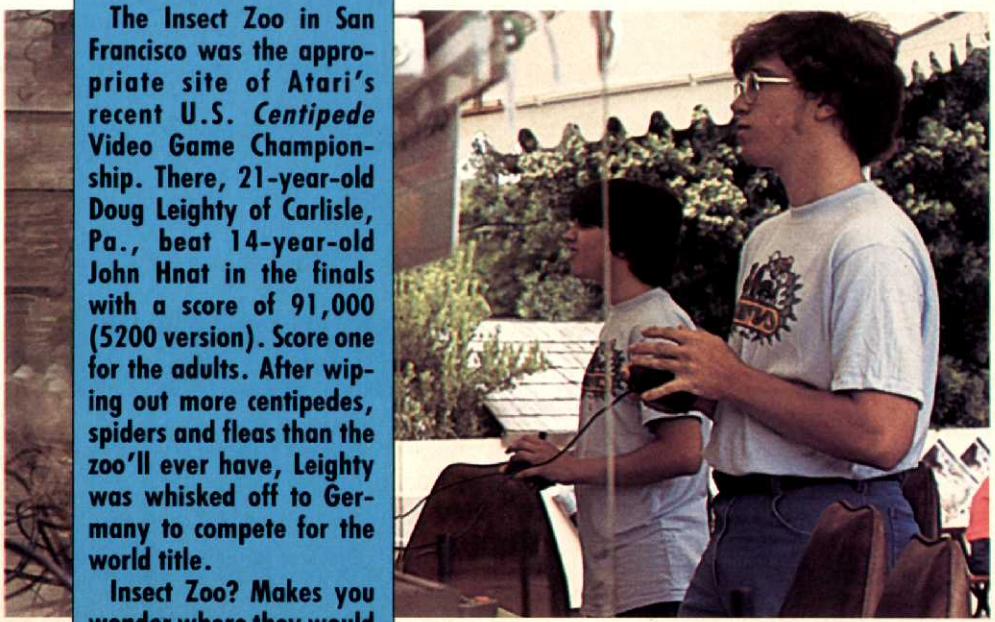
Roll over, Beethoven. Now it could be Mozart, Mendelssohn and Murray.

CENTIPEDE CHAMPIONSHIP

The Insect Zoo in San Francisco was the appropriate site of Atari's recent U.S. *Centipede* Video Game Championship. There, 21-year-old Doug Leighty of Carlisle, Pa., beat 14-year-old John Hnat in the finals with a score of 91,000 (5200 version). Score one for the adults. After wiping out more centipedes, spiders and fleas than the zoo'll ever have, Leighty was whisked off to Germany to compete for the world title.

Insect Zoo? Makes you wonder where they would hold the *Pengo* championship.

Contestants in the U.S. Centipede Championship.



MURDER GAMES

The singular adventure of the glowing screens

A REMINISCENCE OF JOHN H. WATSON, M. D.
AS TOLD TO MICHAEL KURLAND

As I look through my notebooks for the opening months of the year Eighty-Four, I am struck by the number of bizarre and unusual cases that occupied my friend and companion Sherlock Holmes. Most of these problems, though unique of themselves, shared one aspect with the great majority of other cases that Holmes took on during these damp winter months. They each took place on one or another of the computers that Holmes had scattered about our sitting room.

Day after day Holmes would sit cross-legged at the keyboard of his IBM Personal Computer on the tea-table, or squat before the Atari 800 on the coal scuttle, or peer intently into the glowing screen of the Apple affixed by a jack-knife to the ornate mantle above the fireplace. He spurned food and drink and went without sleep until I quite despaired for his health.

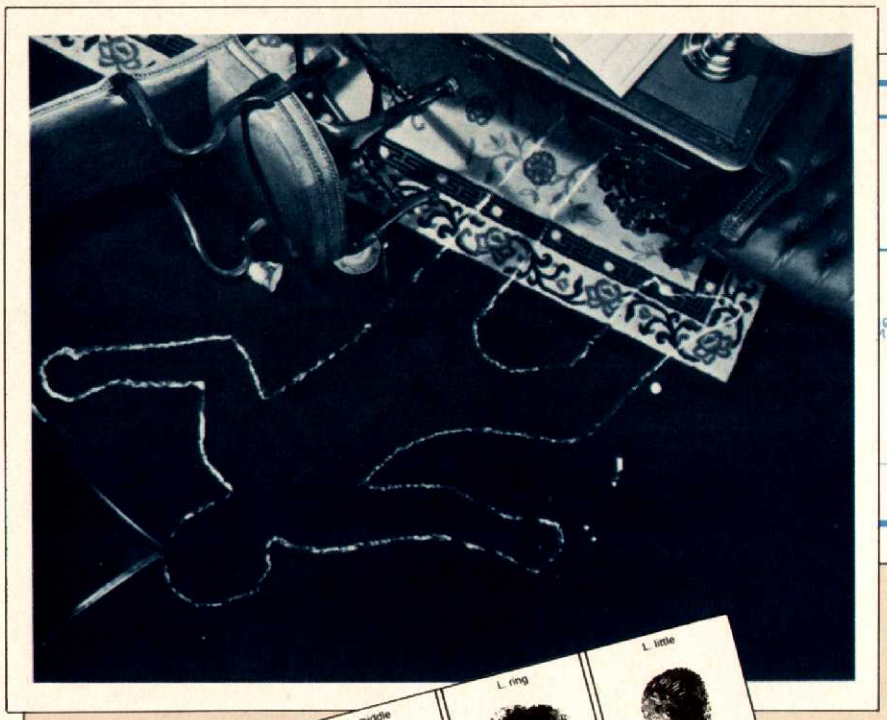
Finally I decided that, as his friend and physician, I must remonstrate with him. "Holmes," I said one morning, glaring at him from over my kippers, "this cannot go on!"

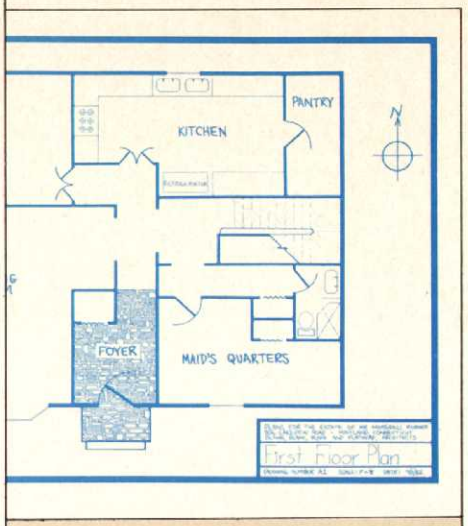
"What's that?" Holmes looked up from the green glowing letters at which he had been staring, and turned his face to me. "What did you say, Watson? I'm sorry if I appear to have been ignoring you, but I have become quite absorbed by these pretty little problems."

"I have noticed," I told him. "So absorbed that you have taken neither food nor liquids for the past four days; and I don't believe you have slept at all. At least, you are in the same position when I greet you in the morning as you were when I left you in the evening—crouched before one or another of those infernal machines!"

"Indeed, Watson," Holmes agreed, springing to his feet and pacing back and

ILLUSTRATION BY KENN RICHARDS





DEADLINE

This "locked room" mystery takes place at a two-story house in Connecticut. Before nailing the killer, you have to prove that Mr. Robner didn't commit suicide. And if you don't watch your step, the murderer will kill you, too.

forth along the narrow carpet. "But what is food or sleep when the game is afoot!"

"Game?" I asked, unable to keep the annoyance from my voice. "What game? Your game is apprehending criminals, which you cannot accomplish staring at a computer screen in your sitting-room."

"Ah, but there you are mistaken, Watson," Holmes said, coming over to the table to pat me on the shoulder and snare a sausage from the platter. "The ideal reasoner could solve any problem without ever rising from his easy-chair. And these games, within easy reach of my easy-chair, are ideal practice for that sort of reasoning."

"Come, Holmes, what sort of games are you talking about?" I asked.

Holmes went back to the tea-table and the IBM. "Mystery games designed to be played on a computer," he said, caressing the keyboard. *Deadline* or *The Witness* on this one. And *Murder by the Dozen* over there in the Apple. And *Murder on the Zinderneuf* in the Atari. Some of these mystery games are quite intriguing, really. Although each is flawed in one way or another for the perfect deductive reasoner, they show amazing promise. Several of them provide a modicum of intellectual stimulation. Come over here and let me show you." His eyes gleamed with excitement.

"My friend Sherlock Holmes spurned food and sleep to play these infernal computer murder games."

I decided to humor him. "What is this?" I asked, going over and staring into the computer screen. All I saw was words.

"This is *Deadline*," Holmes explained. "One of the better mysteries. Quite a three-pipe problem, actually. You must think of these games as providing alternate worlds inside the computers, which you can enter and interact with through the keyboard. Or, in some cases"—he made a face—"the joy-stick."

"But there are no pictures!" I objected.

"Words are the medium of intercourse for the human race," Holmes told me didactically, "and words are the means of expression of this mystery. Some of the others do have pictures of varying degrees of sophistication, and we shall get to those in a minute. But consider—when you read a novel, are you not pulled completely into the story so that it seems to be happening in your mind?"

"Yes, of course," I responded.

"So words alone have the power to create universes within the human mind. The interactive abilities of these games are not complete—some are better than others—and a bad response on the game's part can pull you out of the story and make you aware that you are staring at a computer screen. But as you play, using the restrictive language of the game becomes second nature, and you can truly find yourself totally immersed." Holmes

THE WITNESS

Los Angeles, 1938. Smaller house, one-story. Murder takes place before your eyes, and you get to pack a rod. Chandleresque prose. Tackle this one first—it's not as tough (but still not easy).

tapped the screen inside which lay the game he called *Deadline*.

"This is the Robner house," he told me. "Mr. Robner has been murdered, although it looks like suicide. I suspect the son, but I have no proof as of yet. It all hinges on the will. I have been following the son about, and succeeded in catching him entering a secret room. I'm sure that the will is in a safe in that room. But why does the gardener keep moving the ladder about? And what is the significance of the phone call? I direct your attention to the phone call."

I peered at the screen. I saw:

> Examine the south wall

I see nothing special about the south wall

> Look under the table.

I see nothing but dust

> Go north

You can't go that way.

This all meant nothing to me, but I was sure that my friend's superior intellect had fathomed it fully. "Is there anything else to which you would direct my attention?" I asked Holmes respectfully.

"To the curious incident of the writing on the pad."

"But Holmes, there *is* no writing on the pad!"

"Indeed, Watson," Holmes replied, "But what is food or sleep when the computer game is afoot!"

"That, Watson, is the curious incident." He looked at me smugly. "But I shall move from *Deadline* to one of the other games. Here, in the Apple, we have *Murder by the Dozen*. Now this, although intriguing in its way, is more of a traditional mystery game translated to the new format of the computer. It comes with a map, a clue book and a list of the twelve possible crimes."

I walked over to the mantle with Holmes, and together we peered into the green screen. I saw a map of what appeared to be a small town with each building marked by a letter. "What does one do in this one?" I inquired.

"One interviews suspects and searches locations," Holmes explained. "However, the method used and the information gleaned are both highly circumscribed." He tapped the keys a couple of times.

"Holmes," the computer screen told him, "you are at the Church of St. Peter."

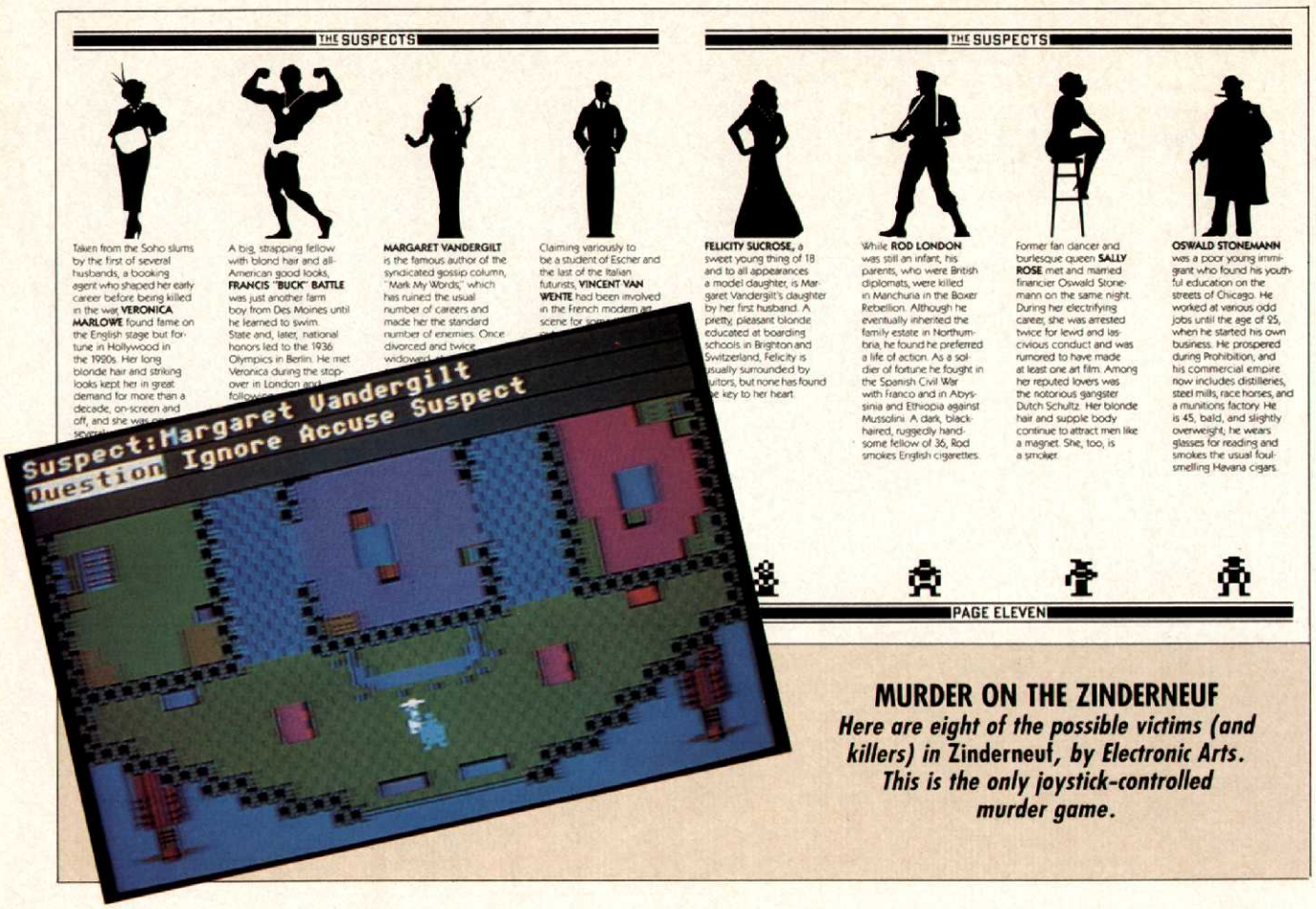
YOUR CHOICES

1. Talk to Father Brown.
2. Talk to Millicent Pierce, organist.
3. Talk to Boris Weir, cemetery caretaker.
4. Go through the cemetery.
5. Examine the confessional booth.
6. Examine the pulpit.

"What now?" I asked.

"Now I think we shall interview Millicent Pierce, who, we are led to believe, plays the organ at St. Peter's." Holmes stroked a few more keys.

A picture of a mouth appeared on the



MURDER ON THE ZINDERNEUF

Here are eight of the possible victims (and killers) in* Zinderneuf, *by Electronic Arts. This is the only joystick-controlled murder game.

lower left, and some numbers were printed across the bottom of the screen.

"If these are the pictures," I said, "I'll stick to my copy of the *Strand* Magazine. What are the numbers?"

"These are our clews," Holmes told me. "We have to look the numbers up in this clew book." He held up a fingerprint-covered pamphlet entitled "Clues."

"But Holmes," I objected, "why doesn't the game just print out the clews instead of making one look them up in a book?"

"Elementary, my dear Watson," said Holmes. "If you look at the instruction book, you will see that this, unlike *Witness* or *Deadline*, is a competitive game for up to four players. Each player is a different detective. I, for example, am 'Holmes.' You, if you wished to compete, could be 'Wolfe,' or 'Spade,' or even nameless. Each of us follows our own clews. If they were printed on the screen, all the others could read them."

"But then you can't get into the story the way you can in the other games."

"True," Holmes acknowledged. "And in *Murder by the Dozen*, an average game would take about an hour, where in *The Witness* or *Deadline* one can go on for weeks. It is a different philosophy of games-playing, each proper for its own environment. Come over to the Atari and I shall demonstrate still another mode of play."

"Take over the game, Watson! I must go investigate murders that take place in the real world!"

I leaned over Holmes as he squatted before the coal-scuttle and manipulated the joy-stick on his Atari 800. "Very interesting, Holmes," I said. "This one seems to be all cartooning of a rudimentary nature."

"Actually quite sophisticated for a small computer," Holmes informed me. "And the sound effects add an additional dimension. The game is called *Murder on the Zinderneuf*, and the action takes place on a luxury zeppelin crossing the Atlantic in 1936. The play is rather primitive; one must bump into a suspect in order to question him, and the questions are pre-arranged. And to search for clews one maneuvers the detective figure about the room until the game announces that he has stumbled across something. It is all a bit haphazard. This is not a game to hone one's deductive skills, but is a pleasant enough way to while away a few hours."

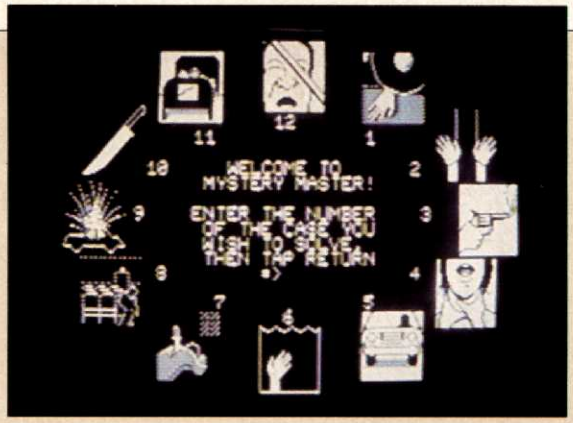
"And if one has no computer?"

"Then investigate a videodisc mystery, like *Murder, Anyone?* or *Many Roads to Murder*."

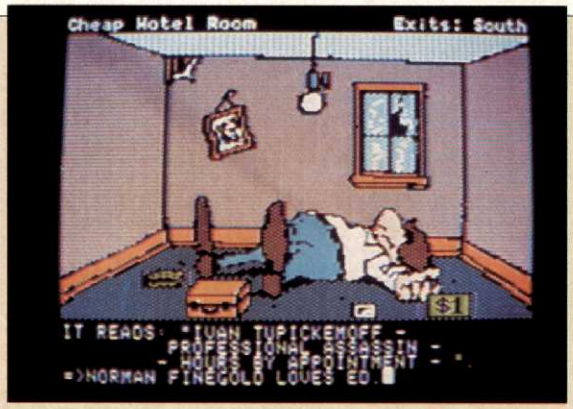
Just then there was a knock on the door and Billy, our elderly page, hobbled in. "Inspector Lestrade wishes to see you, Mr. Holmes," he said, breathing very hard.

Lestrade strode through the door, his

"Watson! Snap out of it, old man! I've been gone two days! Now turn off that bloody game!"



MURDER BY THE DOZEN
There are 12 crimes to be solved in this game by CBS Software. Four detectives can play at the same time.



MASQUERADE
Phoenix Software has the only adventure game murder mystery with graphics. Above, the scene of the crime.

shiny black hair gleaming in the gaslight. I have often thought that he must use bootblack on his hair to keep it so shiny, but he denies this. "Holmes," he bellowed, "I need you. There have been a series of mysterious killings in the East End, seven barristers, each found dead with a roast goose stuffed into his mouth."

"Murder most foul!" Holmes said, springing to his feet. "But I have cases here—well—if I must go. Watson, I leave the current problems in your capable hands. I will give you a little exercise for your deductive facilities." He went over the IBM and exchanged the flippy-floppy, or whatever they call the deuced thing, for a different one.

"What is this, Holmes?" I asked him, approaching the screen with, I admit, a bit of trepidation.

"I am starting up the text game *Witness* for you. See how well you do."

"Actually, Holmes, I'd just as soon read through some of my old medical magazines—"

"Nonsense!" Holmes cried. "Give this a whirl, old man. Try it for an hour or so. If you don't like it by then, feel free to return to your stodgy old medical books."

Picking up his hat and stick, Holmes nodded to me before following Lestrade down the stairs.

I looked down at the screen in front of me. "Somewhere in Los Angeles," it said. "A cold Friday evening in February 1938."

I sat in front of the screen and read the text. It seemed to be a Sam Spade, or perhaps Philip Marlowe, sort of story. Enjoyable to read, perhaps, but as a game? I doubted that it would hold my interest.

A taxi has just let me off at the driveway to the Linder property. My favorite pistol, a snub-nosed Colt .32, is snug in its holster. Why, the screen wants to know, does an ominous feeling grip me?

Why indeed? Well, I'll go along with it a bit longer. I go up to the front door and ring the doorbell. The butler, a chap named Phong, lets me in. Mr. Linder meets me and takes me into his office. Suddenly a shot rings out, and I am killed.

Me? Now wait a minute. Let's try this over again. I start the game over. Just to see what it's like a little deeper into the game. I mean, getting killed in the first five minutes; Holmes would never approve. Ah, that's better. Now I'm getting the hang of it. Hmm. This Phong is an interesting character. Better find out more about him. And Linder's daughter; what has she to do with the mystery? I'll just—

"Watson! Watson! Come on, snap out of it, man!"

"What's that?" I looked up. "Holmes? Back already?"

"I've been gone two days, Watson."

"Really?" I said. "How interesting. It hardly seems—" I shook my head. "Two days?"

"Indeed." Holmes chuckled. "So you find the game intriguing after all, eh?

"Well, I mean, I'd read all the magazines—"

"Of course, old friend," Holmes said. "Of course you had."

Michael Kurland is the author of several mystery novels, including *Death by Gaslight* and *The Infernal Machine*.

THE HOTLINE

NEW YORK...LONDON...PARIS...BOCA RATON

Let's get the sad news out of the way first--MATTEL has pulled out of the electronics business. All we have now are memories of great sports games and GEORGE PLIMPTON. And another bold but flawed video game system, VECTREX, is no longer being manufactured...Remember the big ATARI-GEORGE LUCAS agreement a while back? The first game is finally on the way, and it will be a "futuristic BASEBALL game" for Atari computers. The home version of the arcade game STAR WARS, by the way, will be released by PARKER BROTHERS, not Atari. And who will design it? IMAGIC!

CREATIVE SOFTWARE to introduce a full line of software for IBM PC and PCjr...There hasn't been a new video game system introduced since COLECOVISION, but NINTENDO is about to release one--the VS. SYSTEM. It comes with DUAL MONITORS and the first two games are Tennis and Baseball. Nintendo has also hired Heavyweight Champion LARRY HOLMES to promote their new arcade game, PUNCH-OUT...Look for a WAR OF THE WORLDS game from England in the near future...Everybody's favorite computer shoot-'em-up--CHOPLIFTER--is coming soon for ColecoVision, Adam, and the Atari VCS.

The biggest-selling videodisc on the market is a game--MURDER, ANYONE?...Watch for a laserdisc STAR TREK III game to come out at the same time as the MOVIE...COLECO now owns the computer game rights to JEOPARDY, $20,000 PYRAMID and other TV game shows formerly owned by Great Game Company...It has been confirmed that Coleco will be releasing a NON-laser version of DRAGON'S LAIR. They still promise a LASER player for Adam by the end of the year...The COMMODORE 264 has been delayed, maybe forever...A new company called TYMAC has developed games for Commodore, Atari, and IBM computers that actually TALK with NO speech module of any kind.

First Star's BOULDER DASH may be the first game to have a playable INTERMISSION...Datasoft has licensed the rights to MR. BILL and GUMBY...DISNEY and PARAMOUNT are busily at work designing laser games for the RCA SJT-400 player...TIM COLLUM has been named "Video Game Player of the Year" by the Twin Galaxies International Scoreboard...TRACK & FIELD is coming home. The hit arcade game has been licensed by ATARI. Incidentally, in Japan the game is called "Hyper Olympic"...AMIGA to release a series of VCS carts that contain as many as SEVEN previously released games. The first games will be Imagic games like DEMON ATTACK and Atlantis. The Amiga cartridges hold up to 32K of ROM. Amiga's new "Lorraine" computer will be out soon, and the word is that ACTIVISION will be making the first games for it...

Sierra On-Line is about to introduce a computer BOXING game in which you can fight famous boxers like ALI, FRAZIER, and TUNNEY...Atari is in discussion with PHILLIPS to combine Atari's computer technology with Phillips' LASERDISC technology...DYNATECH is about to release ADVENTURE WRITER, which let s you create your own adventure games. No programming is necessary. It will be available for Commodore 64 and Atari computers...Keep an eye out for BEAT THE BEATLES, a trivia quiz game from Interactive Software for certified BeatleManiacs. It's for Atari computers...The head of SUNRISE ("Campaign '84") Software is ED SALVO, who created SKEET SHOOT and other early VCS games for APOLLO.

The winner of our Win An ADAM Computer contest was WAYNE MOTEL. The correct answers were: Escape From Rungistan, River Raid, Beauty and the Beast, Labyrinth of Crete, Eggomania, Vanguard, Monster Bash, Airstrike, Space Fury, Swashbuckler, River Rescue, and Guns of Fort Defiance.

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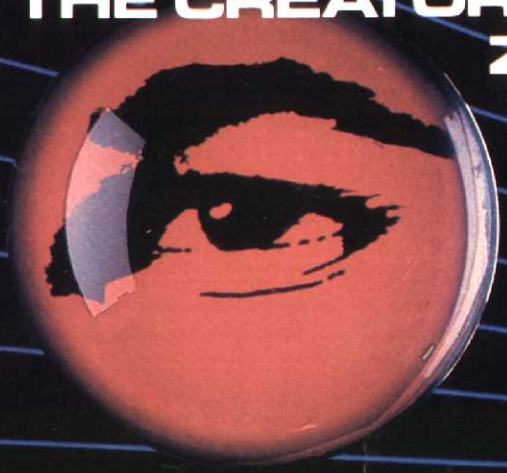
COMPUTER GAMES INTERVIEW:

THE SECRET SUPERSTARS

MEET THE CREATORS OF CHOPLIFTER, ZAXXON, CANYON

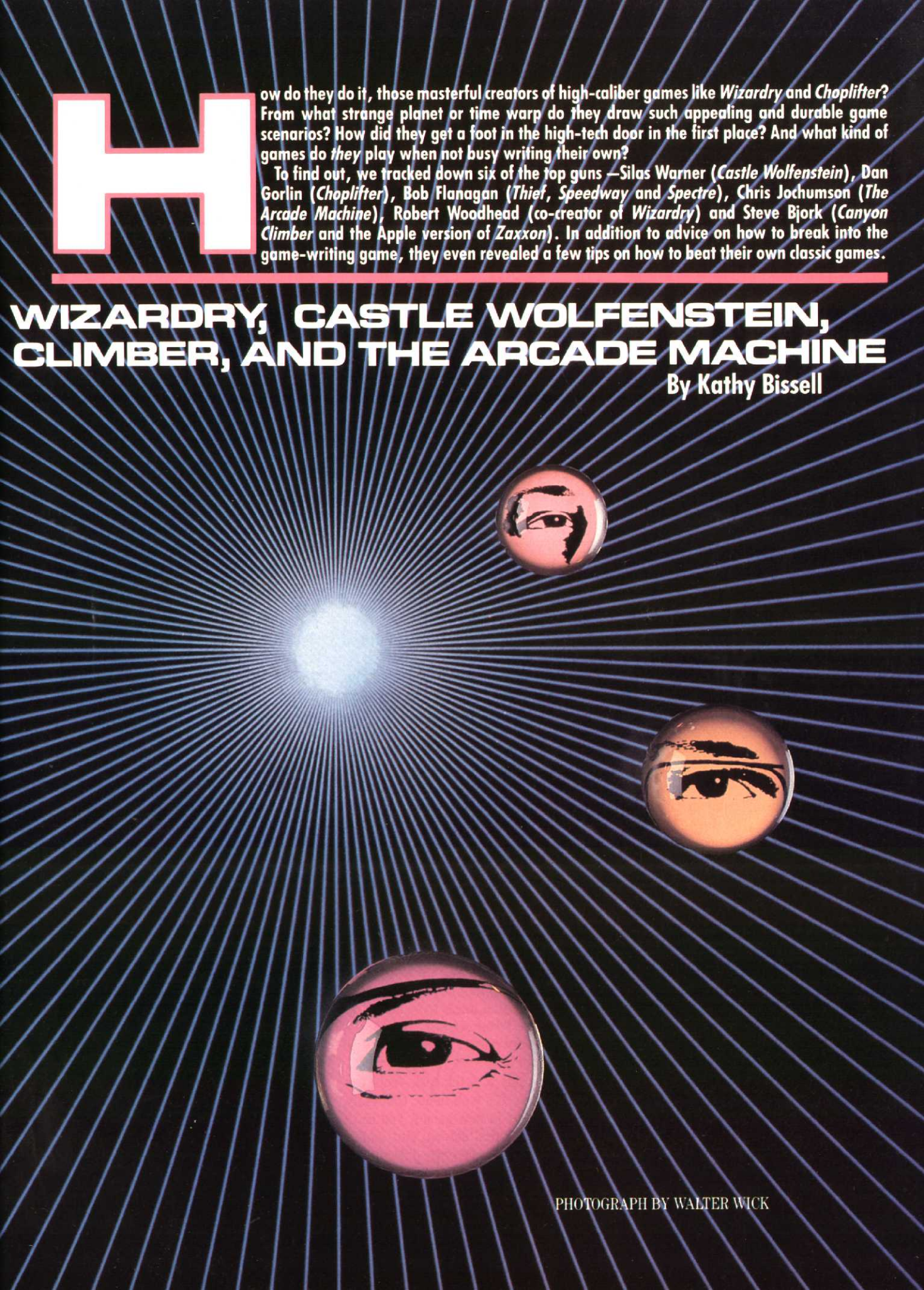


How do they do it, those masterful creators of high-caliber games like *Wizardry* and *Choplifter*? From what strange planet or time warp do they draw such appealing and durable game scenarios? How did they get a foot in the high-tech door in the first place? And what kind of games do *they* play when not busy writing their own?

To find out, we tracked down six of the top guns—Silas Warner (*Castle Wolfenstein*), Dan Gorlin (*Choplifter*), Bob Flanagan (*Thief*, *Speedway* and *Spectre*), Chris Jochumson (*The Arcade Machine*), Robert Woodhead (co-creator of *Wizardry*) and Steve Bjork (*Canyon Climber* and the Apple version of *Zaxxon*). In addition to advice on how to break into the game-writing game, they even revealed a few tips on how to beat their own classic games.

WIZARDRY, CASTLE WOLFENSTEIN, CLIMBER, AND THE ARCADE MACHINE

By Kathy Bissell



PHOTOGRAPH BY WALTER WICK

CG: *What was the first video game you created, and when?*

Jochumson: "I was in the Air Force and was home on leave. I was headed for Korea. And I got an Apple computer—I was the first person on my block to have one. I took it and played with it. That was in 1977. In my spare time I worked on a game, *Space Quarks*."

Warner: "*Castle Wolfenstein* was created between February and September of 1980. I started with a character generator for Apple and got it fast enough to do animation. I got the idea of someone running around. Then I watched a rerun of *The Guns of Navarrone*. From there I got the idea of a World War II setting. The voice of the guy talking in German came from there. We had the Control Data PLATO system, which, although designed for education, was the greatest game system ever invented. I bought an Apple in 1977 because I realized there would be a need for programmers. We founded Muse in Ed Zaron's living room." (Zaron is president of Muse Software. Muse subsequently published *Old Maze* and *Tank War*.)

Woodhead: "I started Sir-Tech Software to do business programs for one of my mom's partners. I got hooked up with Andy [Greenberg], who was and still is a grad student at Cornell. I had a game working called *Paladin*. Andy had one of the first Apples and had written two versions of *Wizardry*. Andy had figured out how to do complicated things on a micro with limited resources and get past 'hack and slash'—Hack, hack, kill, kill, loot, loot."

Flanagan: "When I was in the 10th grade, I bought an Apple. I paid half and my mom paid half. As soon as I got it, I started learning assembler language and before long wrote my first game, *Speedway*."

Bjork: "I started with a Radio Shack Model 1 in 1977. I guess I've written between 20 and 30 games."

Gorlin: "In December of 1981 I borrowed my grandfather's Apple computer. He sort of collects gadgets. *Choplifter* was released in May of 1982. It was my first game."

CG: *How long did it take to create your most popular game?*

Jochumson: "*The Arcade Machine* took eight months. It was a long process. The concept allows people to create an arcade game. There are shapes, paths, background colors. There are options to the game. Options to the levels."

Gorlin: "*Choplifter* took six months."

"I was a piano major in school. At the end of 1981 I borrowed my grandfather's Apple. *Choplifter* was the first game I designed."

Warner: "*Castle Wolfenstein* was created between February and September of 1980, with a working version finished in June of 1980."

Bjork: "It took three or four months for the first version; translation to other computers took at least two months each."

Flanagan: "*Spectre* took a long time to do. Initial writing of the game and getting it on the screen and working took three weeks. Making adjustments, changing the number of enemies, with levels, took two months."

Woodhead: "It took from July of one year to September of the next. We wrote it in PASCAL to get more into it."

CG: *What is it about your game that you think has made it special?*

Gorlin: "It is special because I finished it. In a deeper sense, you see things that don't match expectations. But *Choplifter* did everything that needs to be done."

Jochumson: "*The Arcade Machine* is different from most games. I'm still excited about it."

Bjork: "It has a solid rock feel—like arcade games. It's well done. Generally, when you start [a new game], you can't get beyond the first screen. But adding different screens is currently difficult and costly. Not as costly as three new games."

Warner: "There are subtle relationships; it's hard to put it all together just right. I don't claim it all myself. There was probably a lot of luck involved. It's playable. Continuously interesting."

Flanagan: "The key to a real successful game is playability. *Thief* is closest to arcade games because of its playability."

Woodhead: "I think we were in the right place at the right time. Nobody can come close to it. If you want it, there's only one us."

CG: *What kind of background, education, training is necessary to become a game creator? And how did you get started?*

Warner: "The big thing is to learn how to program your particular computer. It is possible to write games in BASIC, but only if you are willing to put up with slow, clumsy games. You have to improvise to get some good graphics."

Gorlin: "Anything in a manual or a book is old. But learning programming and assembler language is essential. I was a piano major at four colleges for seven or eight years, but took a couple of computer courses. I also had a strong math background. It seems like the two [music and mathematics] go hand in hand. It's common for scientists to be interested in music. I got a job at Rand through one of my professors. I was hired in support services. It was not a high-level job. As I got better, I worked up the ranks. By the time I left, I was working alongside PhD.s. I stuck my foot in the right doors and asked questions. Got on-the-job-training in computers. To the people at Rand, these games are more like pocket watches."

Jochumson: "The way I learned was sitting in front of the computer and doing it."

Flanagan: "I had a math class that required us to use the computer to do problems. It was to familiarize us with the computer. That was all the contact I had with it. Then I spent a lot of time in the computer room—I was what you'd call a hacker—on my own. If you're into computer games, there's no school. They can teach you how to program and how to program right. But you have to work on your own. I did because I was ambitious and curious. Take a course. Read books. Learn assembler language. There's no magic formula for that."

Bjork: "Buy your own machine and play at home. Write a few programs. Try machine language or assembler language. Companies don't want to bother to train you. You need to build your programming techniques. [Bjork recommends PASCAL because it teaches structured program-

ming.] It's especially important when two or three people are working on the same project. They all have to be able to speak the same language."

Woodhead: "Contrary to what Edison said, it's 99% inspiration and 1% perspiration. It's important in creative work to have a firm idea of what you want it to be at the end—so that your colors continue to be brilliant. The best thing a person can say is 'This is what I want to do, now how can I do it?' *Raster Blaster* is like that. So is *Choplifter*. The programmers developed a clear perception before they started out."

CG: *What are your favorite games to play?*

Bjork: "I liked *Tron* when it was hot. *Ms. Pac-Man* is just like the arcade version. *Zaxxon* is as close to playable as *Pac-Man*."

Warner: "By the time I get done, I've mastered the game. We play and test them [other games] out. I don't usually play. I test to try to figure out how they did it. I like to look around to find out what's new."

Flanagan: "I like *Raster Blaster*, *Repton*, *Turmoil*, *Pinball Construction Set*."

Woodhead: "On arcades—*Robotron*. Home cartridge—*Zaxxon* on ColecoVision. I am sort of addicted to baseball games in arcades. But it cheats."

Bjork: "One of my favorite places is the Malibu Grand Prix game test center. I got to play the first *Tron* machine that was shipped. My favorites right now are *Pengo* and *Robotron*."

Gorlin: "I don't play them to enjoy. Most games aren't interesting enough yet."

Jochumson: "I don't enjoy playing computer games that much. I'd like to see more games that add more skill, have less hand/eye coordination."

CG: *How do you feel about making a living creating games?*

Bjork: "I hope it lasts for quite a bit longer because I love it! I spend all day working and playing with games. To me it's the fun of it. I can't see myself doing anything else."

Flanagan: "I just enjoy it. Creating games that I can watch someone else play and get into. It's like creating a book or a painting. People get enjoyment from it. It's very rewarding."

CG: *What tips can you offer for game players who want to get a better score on your games?*

Woodhead on *Wizardry*: "If you get stuck, the big tip is to call our office and we'll give you a hint. Remember the coward's creed: He who turns and runs away lives to see another day."

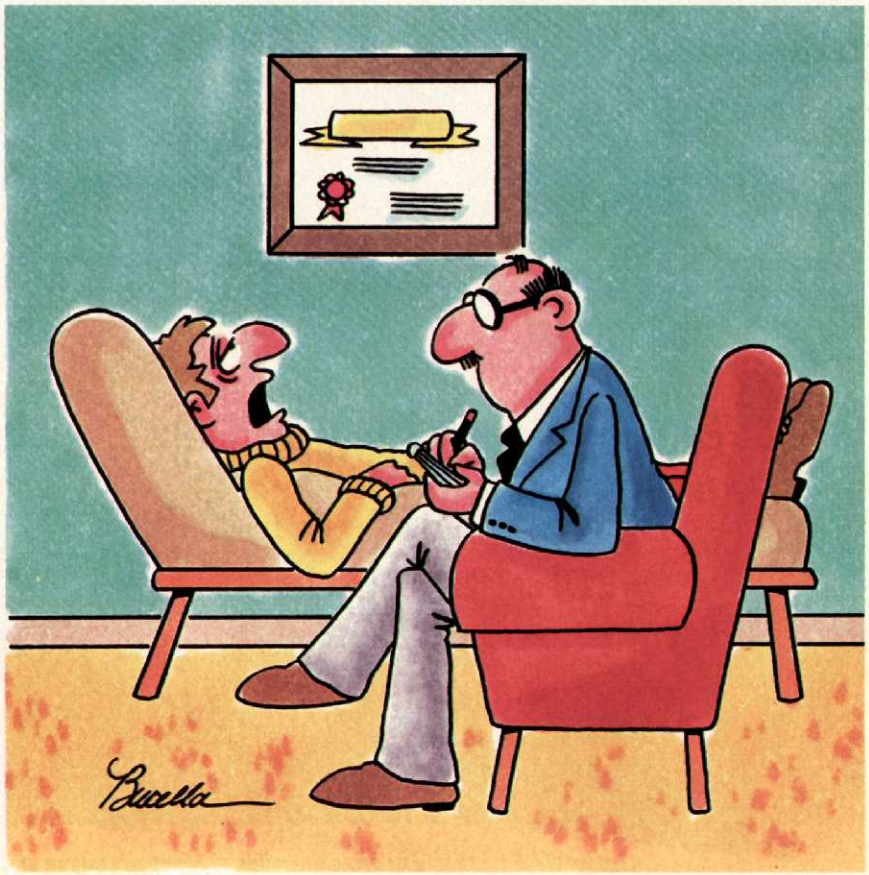
Warner on *Castle Wolfenstein*: "One secret people may not know is the schnapps. What happens is that you can't shoot straight if you have a lot of schnapps. To get around that problem, you should eat a lot of bratwurst."

Gorlin on *Choplifter*: "If you don't knock out the tanks, you will be better off. If you knock out tanks, another round will come. I like to leave the barracks closed until I want to get hostages. Land close to get loaded before a tank or plane comes along."

Bjork on *Canyon Climber*: "In the first scene, whenever possible use the ladders to avoid getting hit by goats. Watch the goats. The longer you're on the scene, the faster the action becomes. Don't bother with shields. Get to the top as fast as possible. Shields only last a certain time. They can act to hurt you, not help you. On avoiding rocks: Two birds are dumb. One is smart. It will drop rocks. When it flies over, fly at the same height. Practice, practice, practice."

Flanagan on *Spectre*: "You'll see some little dots and big dots on the right at the start of the game. Those are energizers, and you should head straight for them as soon as possible."

"I was watching *The Guns Of Navarrone* on TV one day. That inspired the World War II setting in *Castle Wolfenstein*."

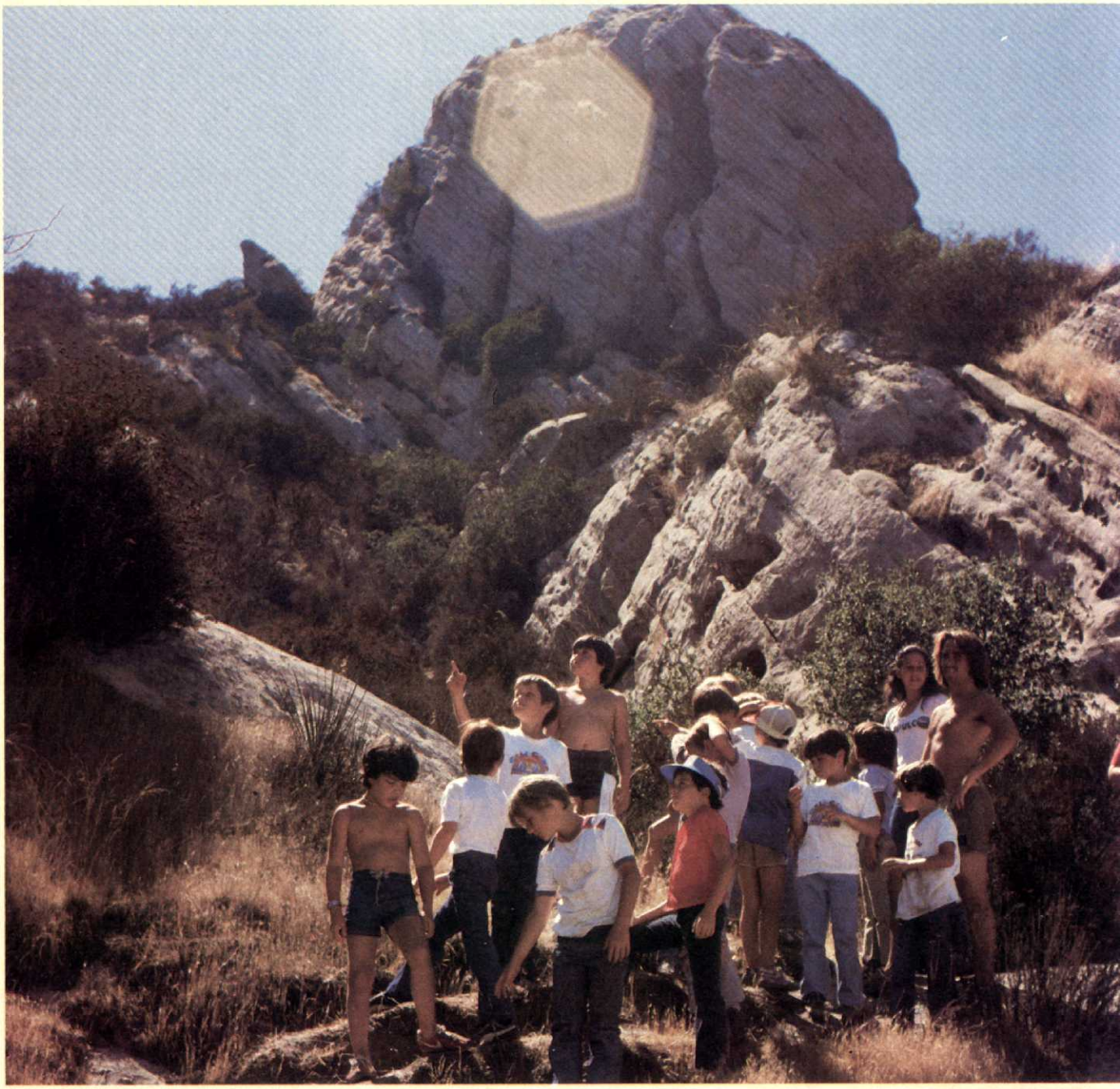


"I've been playing Zork for three years and I haven't gotten into the house yet."

BOOT CAMPS

A COMPLETE DIRECTORY OF 1984 COMPUTER VACATIONS

By Michael Brown



Exploring the wilds of Topanga Canyon at Cali-Camp.

We know, we know—it seems like a computer camp wilderness out there. Selecting a camp once consisted of simply finding the nearest one. But in the last few years, the growing popularity and availability of home computers has touched off a computer camp explosion. There are now well over 50 camps around the country that specialize in computer instruction of all kinds—not to mention the dozens of non-specialist camps that also offer computer labs or workshops, state or city-run summer recreation programs that involve computers, college or university-affiliated summer computer courses designed especially for young people, and even a few summer resort-tour packages with computer seminars for the whole family. Whether you're a parent or child interested in some kind of computer-oriented summer camp program, the prospect of plowing through a mountain of brochures and advertisements in search of the right one could turn your main question into "Why bother?"—summer could be over by the time you find the best camp for you.

These kids traded their skateboards for keyboards this summer.

PHOTOGRAPH BY McGRAIL/WHEELER PICTURES

Don't let the wealth of choices scare you away. If all computer camps offer any single thing, it's an unmatched opportunity to play with, learn about and explore computers in a relaxed environment, with plenty of other people who are just as interested in them as you are, and with ready access to people who can answer your questions and help you to go on exploring the microchip universe after you get back home. The fact that there are so many computer camps means you can really tailor your summer to fit your own needs, abilities and interests. Want a hardcore academic course in microelectronics taught by computer scientists, or advice on how to program your own games? Are you ready to learn assembly language, or just interested in a BASIC course that will let you program that Commodore 64 you got for Christmas? Want to get your hands on a big IBM mainframe, or work on the same kind of machine you have at home? And would you rather spend most of your time indoors on a terminal, or out on the basketball court or swimming in the lake? There's a computer camp somewhere to match any of these desires—and plenty of others. All you have to do is determine

PS COMPUTER CAMPS COMPUTE

NAME, ADDRESS, PHONE	TUITION	COMPUTER EQUIPMENT	LANGUAGES TAUGHT
ARIZONA COMPUTER CAMP 2946 Darca Drive Prescott, AZ 86301 602-445-3778	Residential: $270/one-week session	N/A	BASIC, LOGO
ARROWHEAD LUTHERAN CAMP P.O. Drawer 11 Crest Park, CA 92326 714-336-2076	Residential: $250/one-week session	Apple, VIC-20	BASIC
ATARI COMPUTER CAMPS 40 East 34 Street New York, NY 10016 800-847-4180	Residential: $800/two-week session	All Atari micros	PILOT, BASIC, PASCAL, LISP, FORTH, Assembly
CALAMIGOS STAR C RANCH COMPUTER LAB Rural Rt. 4, Box 14A Malibu, CA 90265 213-889-9724	Residential, Non-specialist: $995/two-week session	Apple IIe, Atari	BASIC, LOGO
CALI-COMPUTER DAY CAMP Cali-Camp 1717 Old Topanga Canyon Rd. Topanga, CA 90290 213-455-1305	Day: $395/two week session	Apple IIe	LOGO, PILOT, BASIC
CAMBRIDGE COMPUTER CAMP 55 Wheeler Street Cambridge, MA 02138 617-492-7100	Day: $300/two-week session	Apple II, Atari, HP micro	BASIC, PASCAL, LOGO
CAMP CODY 5 Lockwood Circle Westport, CT 06880 203-226-4389	Residential, Non-specialist: $2400/eight-week session	Apple IIe, IBM PC	PASCAL, LOGO
CAMP RETUPMOC Rose Hulman Institute of Technology 550 Wabash Ave. Terre Haute, IN 47803 812-877-1511	Residential: $275/one-week session	PDP 11/70, VAX II/780	BASIC, PASCAL
CHAMPLAIN COLLEGE COMPUTER CAMP P.O. BOX 670 163 So. Willard St. Burlington, VT 05402 802-658-0800	Residential: $825/two-week session $1600/four-week session	IBM 34 mainframe; VIC, PET, Super PET, CBM micros, TRS-80, APPLE, IBM PC	BASIC, FORTRAN, PASCAL, Assembly

NAME, ADDRESS, PHONE	TUITION	COMPUTER EQUIPMENT	LANGUAGES TAUGHT
CLASSROOM COMPUTER NEWS COMPUTER CAMP 51 Spring Street Watertown, MA 02172	Day: $475/one-week session	Apple II+, TRS-80	BASIC, LOGO
COLOR COUNTRY COMPUTER CAMP c/o Dixie College 225 South 700 East St. George, UT 84770	Residential: $275/one-week session	Apple II, Atari 800, VIC-20, TRS-80	BASIC, PILOT
COMPUCAMP Compucamp, Inc. 7101 York Ave. So. Edina, MN 55435 612-835-0064	Res: $390/one-week $790/two-week session Day: $150/week	Apple II+, TI, CDC PLATO, Atari	BASIC, PASCAL, LOGO
THE COMPUTER CAMP 200 East South Temple St. Salt Lake City, UT	Day: Call for rates	Apple II	BASIC, PASCAL, CP/M, Assembly
THE COMPUTER CAMP AT YELLOW RIVER STATION Monona, IA 52159 319-539-2425	Residential: $225/one-week session	Apple II+, IBM PC	BASIC, Assembly PASCAL, ADL
COMPUTER CAMP FOR CHILDREN Computer Camp Continuing Education University of Tennessee Chattanooga, TN 37402 615-755-4268	½ day: one-week sessions. Call for rates	Apple, Atari, TRS-80	BASIC
COMPUTER CAMP FOR CHILDREN 100 Foust Building University of North Carolina Greensboro, NC 27412 919-379-5414	Day: Call for rates/ one-week sessions	Apple II+	BASIC
COMPUTER CAMP FOR YOUTH 297 Conf. Brigham Young University Provo, UT 84602 801-378-4903	Residential: $500/two-week session	Apple II+	BASIC, Assembl
COMPUTER CAMP, INC. 1235 Coast Village Rd. Suite G Santa Barbara, CA 93108 805-969-7871	Residential: $795/two-week session	Apple II, Atari	BASIC, PASCAL LOGO

your own goals, then find a camp that matches them.

To help, we've culled the voluminous camp literature and prepared the accompanying chart, which lists most of the existing specialty computer camps and gives a few details about each camp's offerings in some of the areas we think most important. In the meantime, here are some additional suggestions on how to pick the right camp.

Talk it over—Parents *and* kids have something to contribute in choosing the right computer camp. Kids can let their parents know how much they already know about computers, what they're most interested in learning next, and should relate experiences their friends and classmates have had at specific camps. Informed parents can guide a child's decisions toward a camp they're not only happy with, but that the child wants to attend.

Ask questions—Once you've settled on a few likely prospects, call the camp director and get details. Is the camp accredited? How many computers and counselors come back each summer? How long has the camp been in existence?

Camp or School?—Some "camps" are

CAMPS COMPUTER CAMPS COMP

NAME, ADDRESS, PHONE	TUITION	COMPUTER EQUIPMENT	LANGUAGES TAUGHT
COMPUTER DAY CAMP *The Pacific Science Center* *200 Second Ave. North* *Seattle, WA 98109* *206-625-9333*	*Day: Call for rates/ one-week session*	*Apple II+*	*BASIC, LOGO*
COMPUTER DAY CAMP AT THE MASTERS SCHOOL *49 Clinton Avenue* *Dobbs Ferry, NY* *914-693-1400*	*Day: $300/2 weeks, $600/4 weeks, $800/6 weeks*	*Apple, Atari TI*	*BASIC, LOGO*
THE COMPUTER ERA *536 S. Second Ave., Suite E* *Covina, CA 91723* *213-331-5302*	*Day: $110/one-week session*	*Apple, TRS-80, NEC*	*BASIC*
THE COMPUTER EXPERIENCE *Performance Design Inc.* *1411 N. Main Street* *Box 124* *Bluffton, IN 46714*	*Residential: $395/one-week session*	*Apple II, IBM PC*	*BASIC, LOGO, PASCAL, PILOT*
COMPUTERS FOR KIDS *980 Magnolia Avenue* *Larkspur, CA 94939* *1-800-227-2866*	*Residential: one, two, six week sessions. Call for rates*	*Apple II+, Commodore, TRS-80, NEC*	*BASIC, LOGO, PASCAL*
COMPUTER LEARNING CENTER *RFD 8 Box 375* *Concord, NH 03301* *603-783-4708*	*Residential: $825/two-week session*	*Apple II, TI, TRS-80, PET*	*BASIC, LOGO, PASCAL*
CULVER COMPUTER CAMPING *Officer of Admissions* *Culver Summer Camps* *Culver, IN 46511* *219-842-3311*	*Residential: $285/one-week, $540/two-week sessions*	*DEC mini*	*BASIC, LOGO*
DATA BASE COMPUTER CAMP *6454 Valley View Road* *Oakland, CA 94611* *415-339-2961*	*Residential: Call for rates*	*Apple II+*	*BASIC, Machine Language*
DUKE UNIVERSITY COMPUTER KAMP (DUCK) *Duke University* *107 Bivens* *Durham, NC 27708* *919-684-6259*	*Residential: $650/two-week session Day: $250/one-week session*	*IBM PC*	*Day: BASIC Residential: PASCAL*

NAME, ADDRESS, PHONE	TUITION	COMPUTER EQUIPMENT	LANGUAGES TAUGHT
FAMILY COMPUTER CAMP *Clarkson College* *Potsdam, NY 13676* *315-268-6647*	*Day or Residential: Sliding scale, one-week sessions*	*Zenith Z-100, Atari, Apple II, VIC-20, IBM mainframe terminals*	*LOGO, BASIC, PASCAL, FORTRAN*
GOSHEN COLLEGE COMPUTER CAMP *1700 S. Main Street* *Goshen College Admissions* *Goshen, IN 46526* *219-533-3161*	*Residential: $125/one-week session*	*PDP 11/70 mini*	*BASIC, PASCAL*
HALF DAY CAMP FOR KIDS *1455 So. State Street* *Orem, UT 84057* *801-224-1169*	*½-day: $75/one-week session*	*Apple*	*LOGO*
HOCKADAY COMPUTER CAMP *11600 Welch Rd.* *Dallas, TX 75229* *214-363-6311*	*Residential: $790/two-week session Day: $370/one-week session*	*TI*	*BASIC, PASCAL*
LAKE FOREST COMPUTER CAMP *Lake Forest College* *Lake Forest, IL 60045* *312-234-3100*	*Residential: $375/one-week session*	*Apple II+*	*BASIC, PASCAL, Assembler*
LUTHER COLLEGE COMPUTER CAMP *Dean's Office* *Luther College* *Decorah, IA 52101* *319-387-1005*	*Day: $200/one-week session*	*HP minis, Apple, TRS-80*	*BASIC, PASCAL, Assembler FORTRAN*
MATH WORKSHOP *College of Wooster* *Wooster, OH 44691* *216-263-2389*	*Residential: $500/two-week session*	*Terak micros*	*PASCAL*
MARIST COLLEGE COMPUTER CAMP *Marist College* *Poughkeepsie, NY 12601* *914-471-3240*	*Residential: $850/two-week session*	*IBM 4341, Mainframe, Apple, IBM PC, TRS-80, PET*	*BASIC, APL, PASCAL*
MICRO COMPUTER CAMPS, INC. *P.O. Box 11987* *Memphis, TN 38111* *901-324-5543*	*Residential: $495/two-week session*	*Apple II+*	*BASIC, PASCAL, PILOT, LOGO*

glorified summer schools, offering academic instruction without the balanced social, recreational and other growth experiences traditionally offered by real camps. While summer school may be just what you had in mind, it's worthwhile to find out whether the camp you're interested in is really one or the other.

Match machines —BASIC as spoken by the Apple II isn't the same as Atari BASIC. If your child hasn't yet finished learning BASIC on one, it could be a pretty discouraging experience to have to re-learn it on another.

Access time—Class instruction is fine, but almost every hacker will tell you that the way to learn about a computer is to be left alone to experiment with it. How much free access to the computer will the camper actually have? When? Does the curriculum encourage independent, hands-on creativity? Is the staff qualified to jump in and help whenever the camper needs it—and are there enough of them to be ready when *he* is?

Camper/Computer Ratio—One camper, one computer—that's the ideal, and one way to guarantee plenty of access time.

Non-specialist camps—Plenty of more traditional camps are beginning to recognize computers as a legitimate camp activity, and are now including it alongside ham radio, leathercrafting and other indoor hobby programs. We've included a couple of these camps in our chart, and you can find out about more of them in the *Parent's Guide to Accredited Camps*, published annually by the American Camping Association, Martinsville, IN 46151 (317-342-8456).

What about mom and dad?—Computer literacy isn't just for kids. Along with the Family Computer Camp in Potsdam, New York, which offers special group rates for whole families (and makes adult attendance mandatory), hands-on computer workshops and seminars are becoming a natural part of other packaged family vacation tours. Among the most well-known is Club Med, which now offers computer workshops for both kids and adults (800-528-3100).

Other alternatives—If you can't afford —or otherwise don't like—any of the big computer camps you see, why not explore smaller, local day camps and recreational programs? Several good places to start looking are at your local YMCA, YWCA, university or college, private prep schools and your city recreation department.

Grow your own—It's not impossible; in fact, several of the camps in our chart were started by concerned parents who wanted to give their kids a computer camp experience. One such group, The Yellow Springs Computer Camp, went on to publish a how-to manual and comprehensive computer camp guide that will tell you everything you need to know not only about picking a computer camp, but about starting one as well. It's called *The Computer Camp Book*, costs $12.95 plus $2 for shipping, and can be ordered from The Computer Camp Book, Box 292, Yellow Springs, OH 45387.

OMPUTER CAMPS COMPUTER CA

NAME, ADDRESS, PHONE	TUITION	COMPUTER EQUIPMENT	LANGUAGES TAUGHT
NATIONAL COMPUTER CAMPS *P.O. Box 585* *Orange, CT 06477* *203-795-9667*	*Residential: $380/week*	*TRS-80, Apple*	*BASIC, PASCAL, Machine Language*
NEW HAMPSHIRE COLLEGE COMPUTER CAMP *New Hampshire College Resource Center* *2500 N. River Road* *Manchester, NH 03104* *603-669-1831*	*Residential: $350/week* *Day: $199/week*	*IBM 4341 Mini, Apple II+, PET, TRS-80*	*BASIC, FORTRAN*
OHIO STATE UNIVERSITY COMPUTER CAMP *Ohio State University* *Office of Continuing Education* *2400 Olentangy River Rd.* *Columbus, OH 43210* *614-422-8571*	*Residential: $675/two-week session*	*Andahl, Mainframe, IBM PC*	*BASIC, Assembly*
PHYSICS AND MICROELECTRONICS COMPUTER CAMP *Dept. of Physics & Astronomy* *Appalachian State University* *Boone, NC 28608* *704-262-3045*	*Residential: $400/two-week session*	*PET*	*BASIC, Machine Language*
ROCKY MOUNTAIN COMPUTER CAMP *Boulder Computer Resource Center* *1005 Pearl Street* *Boulder, CO 80302* *303-442-6228*	*Residential: $400/one-week, $785/two-week sessions*	*Mainframe, Terminals*	*BASIC, LOGO, Assembly*

NAME, ADDRESS, PHONE	TUITION	COMPUTER EQUIPMENT	LANGUAGES TAUGHT
SUMMER COMPUTER-MATH CAMP *Dept. of Math Sciences* *College of Wooster* *Wooster, OH 44691* *216-263-2239*	*Residential: $500/two-week session*	*Mainframe terminals*	*BASIC*
TIMBER TECH COMPUTER CAMP *3192 Glenn Canyon Road* *Scotts Valley, CA 95066* *408-436-3339*	*Residential: $895/two-week session*	*Apple, Atari*	*LOGO, BASIC, PASCAL, PILOT, Assembly*
UNIVERSITY OF ALABAMA COMPUTER CAMP FOR KIDS *University of Alabama at Birmingham* *Special Studies* *917 11th Street* *South Birmingham, AL 35294* *205-934-3870*	*Day: $250/two-week session*	*N/A*	*BASIC, PASCAL*
WESTERN CAROLINA SUMMER COMPUTER CAMP *Dept. of Mathematics & Computer Science* *Western Carolina University* *Cullowhee, NC 28723* *704-227-7245*	*Residential: Call for rates and times*	*VAX mainframe, Apple II+, others*	*BASIC, PASCAL*
YELLOW SPRINGS COMPUTER CAMP *P.O. Box 292* *Yellow Springs, OH 45387* *513-767-7717*	*Residential: $650/two-week session* *Day: $200/one-week session. Family rates.*	*Apple II+, TRS-80, HP, Heath, PDP 11/23 Mini*	*BASIC, PASCAL, LOGO, PILOT, Assembly*

ZOMBIES©

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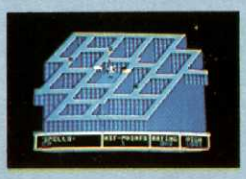
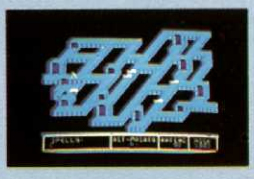
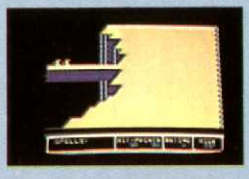
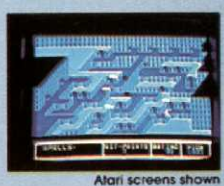
Scrolling 3D graphics, on-line instructions, one or two player cooperative, seven different dungeons, 74 different screens, high score save to disk, full sound and color, zombies, poisonous snakes, giant spiders, evil orbs, scrolls, talismans, magic spells, lost crowns and spectacular underground scenery.



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PHOTOGRAPH BY DAN NELKEN

COMPUTER GAMES

THE MS. PAC-MAN MYSTERY

How three guys from Montana invented the ultimate strategy

By Paul Stokstad

Pac-Man was a game you could beat. You could beat it by memorizing patterns. The ghosts, you see, weren't programmed for randomness. If you zigged and they zagged, they'd do the exact same thing in a similar situation. It wasn't long before everybody knew the patterns to beat *Pac-Man*.

***Ms. Pac-Man* is a different story. The ghosts are programmed for randomness, so there isn't a pattern that exists to beat it—the ghosts behave differently in each game. But there is one technique that will earn a player an incredible amount of points: "grouping." If you can induce the ghosts to move**

close to one another, you can stay alive and get 1,600 points when you gobble them near a power pill. This is the story of three guys from Montana who got together and figured out how to give *Ms. Pac-Man* a beating she'll never forget.

If Tom Asaki was hot in the summer of '82, it was due to the temperature, not to his skill at *Ms. Pac-Man*. He was pretty good then, but he wasn't grouping the ghosts yet. At least that's what Don Williams says, and Don should know, since he regularly watched Tom play down at Games Are Fun in Bozeman, Montana. Superior players usually can't put their techniques into words. One way to get good is to watch a guy's moves. Don got pretty good at *Ms. Pac-Man* too.

But Tom Asaki and Don Williams didn't really get tight until Spencer Ouren, another Bozeman boy, started sharing his *Ms. Pac-Man* techniques. Spencer knew Tom and introduced Don to Tom. From then on, whenever one of them picked up a trick, he would share it with the other two. In January of 1983, they were not playing the game as individuals—beating *Ms. Pac-Man* had become a group project. Their goal was to score the first- second- and third-highest total scores ever recorded at the game. They felt that if they put their heads together, they could come up with the best system to totally ace out the rest of the world.

Grouping is not a mystery. It's a standard technique among better *Ms. Pac-Man* players. The basic move is accomplished from the "hold" position on the board. This is a spot that the ghosts will never cross to destroy you. The hold is located in a different location on each of the four maze patterns of the game. By moving out of this safe spot in varying directions, you can influence the separate moving ghosts to get closer to one another in pursuit of the faked direction you appear to be taking. Then you can pop back into the hold and the ghosts will be grouped in a tighter, more manageable pattern.

Grouping is pretty easy on the first three maze patterns (waves one through nine). But even the best players always seemed to get wiped out on the fourth maze pattern, called the "Junior" boards. The problem was that there didn't seen to be a hold on the Junior boards. The other three holds didn't work, and the Bozeman Think Tank, as they called themselves, were continally killed by the blue-green ghost. Without a hold on the fourth maze, it would be impossible to conquer the game, because after the tenth wave half the waves are Junior boards.

The Deception

When they had just about given up, a fellow by the name of Matt Brass met up

ILLUSTRATION BY JOSIE YEE

The Bozeman Montana Think Tank—Spencer Ouren, Tom Asaki, and Don Williams gave Ms. Pac-Man a beating she'll never forget.

with the Think Tank. Brass, a pretty decent player himself, had just returned from the North American Video Olympics in Ottumwa, Iowa. When Brass described the Olympics scene to Tom, Spencer and Don, he dropped a bombshell—some players were grouping the ghosts on the Junior boards.

It wasn't true. Brass wasn't lying—he had meant to say that some players were grouping *before* the Junior boards.

But the Think Tank panicked. They thought they were pretty good at *Ms. Pac-Man*. Now someone, some mysterious someone, had whipped the Junior boards, which had seemed impossible.

Believing that the impossible was now possible (and had been achieved), the Think Tank pressed on with their own solution. They thought, "Well, if it's possible, we want to be able to do it too." It was like being told that Mt. Everest had been scaled when it hadn't. The miscommunication from Brass made the Think Tank believe grouping was possible on the Junior boards. In fact, no one had ever done it.

They worked five days straight on the problem. The first thing they did was to use the "rack advance" inside the *Ms. Pac-Man* cabinet to advance the game to the higher boards. The found that if they just played the game normally, by the time they worked their way to the higher boards, they became reluctant to take any chances for fear of ruining a good score. And you don't make any breakthroughs if you're not willing to take chances.

With a lot of research, the Think Tank, and especially Spencer, decided that the key to grouping had to involve the four tunnels on the sides of the screens. They started playing around in there, luring the ghosts on wild goose chases to see how they would respond. One ghost—Sue—seemed particularly attracted to *Ms. Pac-Man* in the tunnels. Spencer discovered that if the pink ghost is coming straight at you, you can deceive him by pointing *Ms. Pac-Man*'s eyes upward. The pink ghost, they found, has been programmed to go in the same direction as you and to get in front of you, even if there is no channel to move. This information can be used for avoidance and grouping. With these and other techniques, Spencer was soon using the tunnels and grouping three of the ghosts. The other members of the Think Tank added refinements.

It was Tom who made the breakthrough. By using Spencer's method to group three ghosts, he discovered a hold! The hold, which didn't seem to exist on the Junior boards, was there—but only if you grouped three of the ghosts before you went into it. With this knowledge, it became a simple matter of using the tunnels to group the three ghosts on the run, go into the hold [see diagram] to wait for Sue, and then nail all of them. The Think Tank was soon achieving scores in the 400,000 range, which had been considered impossible.

PHOTO BY SCOTT MORGAN

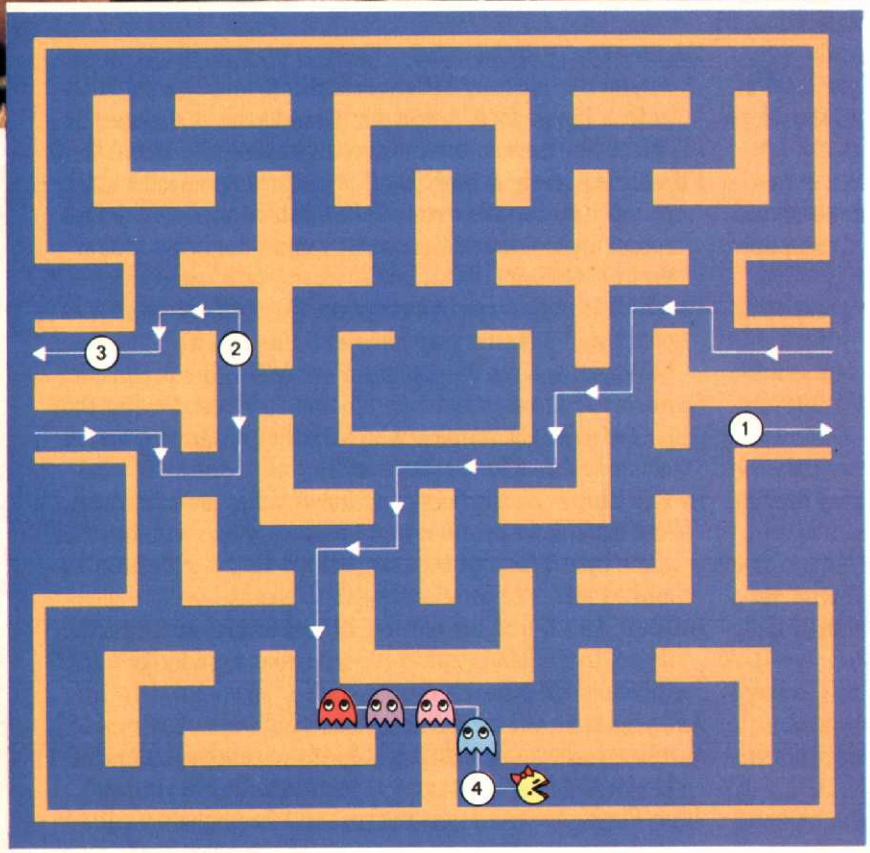


ILLUSTRATION BY NINA WALLACE

This is the pattern the Think Tank devised to group all four ghosts on the Junior boards. Start with two ghosts chasing you at 1 and group Sue at 4—the "hold."

"Spencer found that if the pink ghost is coming at you, you can deceive him by pointing Ms. Pac-Man's eyes upward."

You can imagine how Tom, Don and Spencer felt when they spoke with Matt Brass again and discovered the communication breakdown. The Bozeman Think Tank had done the impossible—only because they mistakenly believed it had already been achieved. Sometimes psychology can be just as important for good scores as eye/hand coordination.

(This was a very basic sketch of a complex system worked out by the Bozeman Three. The total system includes various fakes, patterns to run, and strategies to control the ghosts on all four mazes of the game. If you're interested in the complete system for dominating *Ms. Pac-Man*, Spencer Ouren will send it to you. Send $5 to cover his postage and sweat to: Spencer Ouren, 1724 S. 19th St., Bozeman, MT 59705.)

Think Tank Tips

When you play a new game, watch other people play, then play the game yourself, just getting used to the controls. Then try to master what other people are doing on the game. Finally, try to invent new moves, new solutions for situations. Don says to "look for a goal, something to do to get through each board, then develop that skill and use it in the game."

According to Tom, you can get high scores in *Ms. Pac-Man* by using lightning quick reflexes and open-field running. But keeping up that intensity over an hour long game is impossible. You eventually slip. You blink. It's better to explore "systems" of play if you really want to hit high scores.

40 GAMES

Astrochase: In this first-rate shoot-'em-up-in-space, you can fly in one direction and fire your lasers in another to defend earth. Brilliant graphics, great animation. (First Star)

Baseball: An all-new game designed specifically for the PCjr, *Baseball* features an aerial view when the ball is pitched and hit. It's a two-player game with full control over your individual team members. (Imagic)

Boulder Dash: Dig your way through 16 action-packed caves in your search for treasure. Colorful scrolling screens and an intermission game make this a real contender. (First Star)

Bristles: Our April "Game of the Month," *Bristles* offers arcade-type fun as you paint the rooms of eight houses—despite Brenda the Brat, bucket-chuckers and other obstacles. Music from the Nutcracker Suite makes this lively entertainment. (First Star)

Bruce Lee: As the mighty kung-fu fighter, you must defeat the deadly Ninja and other enemies as you break into the Evil Wizard's fortress to ransack his fortune. Strategy as well as reflexes are necessary for victory. (Datasoft)

Buck Rogers: A translation of the intense arcade shoot-'em-up. You pilot a ship as it zooms forward on a pylon-filled landscape. Stay within the pylons and kill the weird creatures that are buzzing around you. (Sega)

Congo Bongo: Another arcade translation—*Zaxxon* meets *Donkey Kong* and *Jungle King*. Climb this three-dimensional cliff and avoid the rocks, monkeys, and crocodiles to humiliate a gorilla. (Sega)

Crossfire: This shoot-'em-up takes place inside a maze that represents an aerial view of a city under alien attack. Mile-a-minute action's the reason it won our Golden Joystick Award as "Best Action Game of 1982." (Sierra On-line)

Deadline: If you haven't heard of this one, you *must* be dead. It's an all-text adventure in which you play the role of detective to solve a murder. (Infocom)

Demon Attack: *Space Invaders* to the max. Wave after wave of swooping aliens want nothing more than to drop something vile on you. In each round they are slightly different. (Imagic)

Drelbs: No lasers here. Your Drelb builds up glowing squares, while the enemy tries to knock them down. If you're looking for something out of the ordinary, give this one a shot. (Synapse)

Enchanter: The first of a trilogy that's like a magical version of *Zork*. Explore an evil magician's castle, learn to use your spells and rid the land of black magic. All-text, all-fun. (Infocom)

Facemaker: Kids from 3-8 will enjoy creating faces on the screen by selecting different features and moving them onto a blank face. Great for introducing youngsters to things like menus, cursors and the keyboard. (Spinnaker)

Flip & Flop: As in *Q*Bert*, you've got to jump on each block to move to the next round. But you've got to play that round upside-down! Gorgeous graphics and cute characters. (First Star)

Football: Another new sports game, *Football* lets you act as coach and pick the play, then execute it as a player. Can be played against the computer or head-to-head. (Imagic)

Genesis: A hi-res shoot-'em-up that has you playing the part of a deadly scorpion who's fighting it out with hordes of venomous spiders. (Datasoft)

In The Chips: Be the boss of a Silicon Valley software firm, and learn how to run a real business while winning the game by wiping out the competition in this entertaining and educational simulation. (Creative)

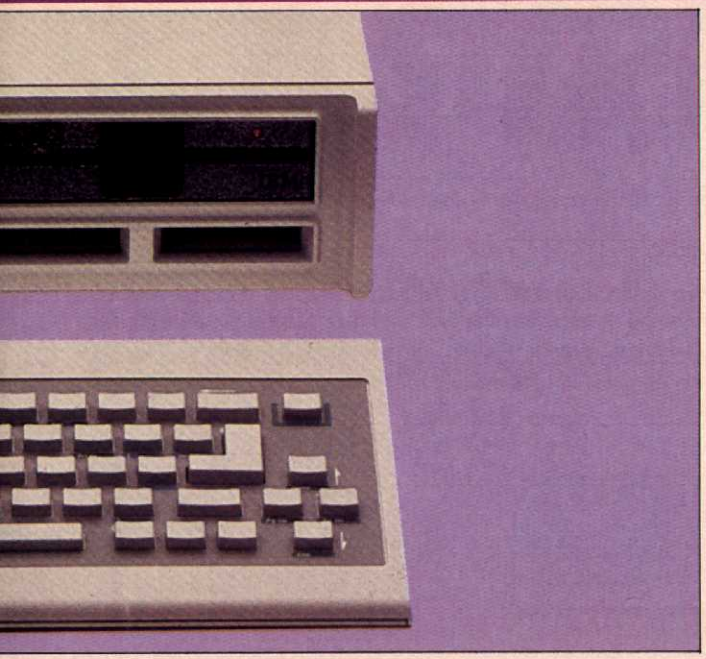
Infidel: An all-text adventure, *Infidel* drops you off in the desert to find and explore a mysterious pyramid of a lost Queen of the Nile. (Infocom)

Jawbreaker: A maze game with moving walls. You're a set of teeth, devouring different kinds of candy. Sounds like kid stuff, but real strategy is required. (Sierra On-line)

Juno First: An arcade classic that can be played by one or two. Lasers, aliens, and a space ship you can fly through time and space. (Datasoft)

Lost Tomb: An adaptation of the arcade game, this ani-

FOR PCJR



mated adventure takes place in an ancient Egyptian tomb that's teaming with deadly mummies and other dangers. There are 91 chambers in the maze. (Datasoft)

Math Maze: Addition, subtraction, multiplication and division become fun when worked into a maze game scenario. Nice animation and sound effect, and you can create your own mazes. (Designware)

Microsurgeon: The screen is the inside of a human body, and you've got to kill cancers and save blood cells so the patient will get well. It's just like *Fantastic Voyage*, but without Raquel Welch. (Imagic)

Mr. Cool: Like *Q*Bert*, Mr. Cool has to hop around changing the color of the "plates" he lands on. Similar pyramid, but the enemy flies past horizontally instead of chasing you. (Sierra On-line)

Nibbler: Fast-moving action maze along the lines of *Lady Bug*, but as each second ticks away, the body of your snake gets longer. A translation of the little-known arcade game. (Datasoft)

Oil's Well: A unique maze-type game in which you drill for oil with a long pipe that stretches to the bottom of the screen. As much fun and as addictive as *Pac-Man*. (Sierra)

Picnic Paranoia: Swat the ants, spiders and wasps before they make off with your picnic. Sharp graphics and animation, five skill levels and solitaire/two-player versions make this a real value. (Synapse)

Pipes: Arlo the plumber has to connect pipes from the water supply to a number of houses, but only has so much money to buy supplies. Animated action teaches skills involving relative distance and economics. (Creative)

Planetfall: A laugh-a-minute robot named Floyd follows you everywhere in this all-text sci-fi adventure. If you've never played an Infocom game, *Planetfall*'s the best introduction to their mini-universes—challenging and fun, but not as difficult and as the others. (Infocom)

Puzzlemania: Logic, concentration, powers of observation, sound recognition and trial and error all play a part in solving the 50 video puzzles that make up this game. At the higher levels, you even have to figure out what the problems *are*. (Epyx)

Save New York: Fly through NYC's skies to shoot down the alien spiders, then guide your little character underground so he can blast them in the subway tunnels—if he doesn't get run down by a train! (Creative)

Seastalker: An all-text adventure designed for 8-13 year-olds, *Seastalker* puts you in charge of a mini-sub and challenges you to rescue an underwater research lab from denizens of the deep. (Infocom)

Shamus: This incredibly fast-paced and frenetic shoot-'em-up-in-a-maze game won our "Golden Joystick" award as Best Computer Game of 1982.

Spellakazam: Over 400 words from the widely used Silver Burdett spelling program are incorporated into an animated scenario for grades 2-8. It allows you to make up your own word lists. (Designware)

Starcross: Explore an alien spaceship that's full of strange life forms from around the universe, then repair the ship before they—and you—die. (Infocom)

Star Trek: An authentic conversion of the arcade game. Split-screens show long-range and close-up views of the *Enterprise* battling Klingon ships. (Sega)

Suspended: The only all-text adventure in which you control the actions of a band of robots, manipulating them to put your underground cryogenic bunker back together before it's too late. (Infocom)

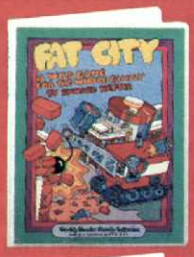
Ultima II: An animated action-adventure full of strange characters and mythical beasts who seek to thwart your quest. (Sierra On-line)

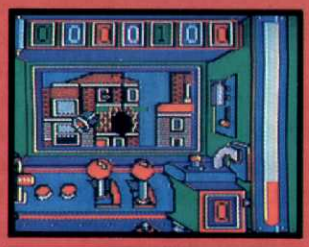
Witness: Set in 1938 Los Angeles, this Raymond Chandler-esque mystery defies you to solve a murder that takes place while you're talking to the victim. All-text, and not as difficult as *Deadline*. (Infocom)

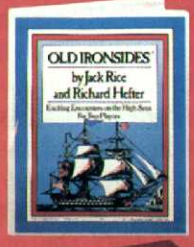
Zork I, II, III: The classic all-text adventure game, this trilogy is set in the subterranean world of Zork, inhabited by trolls, magicians and other fantastic creatures who make life tough as you attempt to collect various treasures. (Infocom)

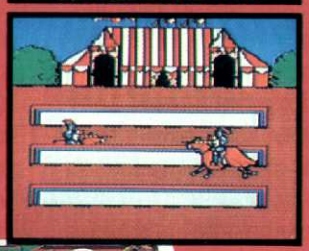
WRECK'EM RAM'EM RESCUE'EM

3 Thrillers for the game players in your family!









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A/M33-M5

Weekly Reader Family Software

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CAN YOU SURVIVE? ELEVATOR ACTION

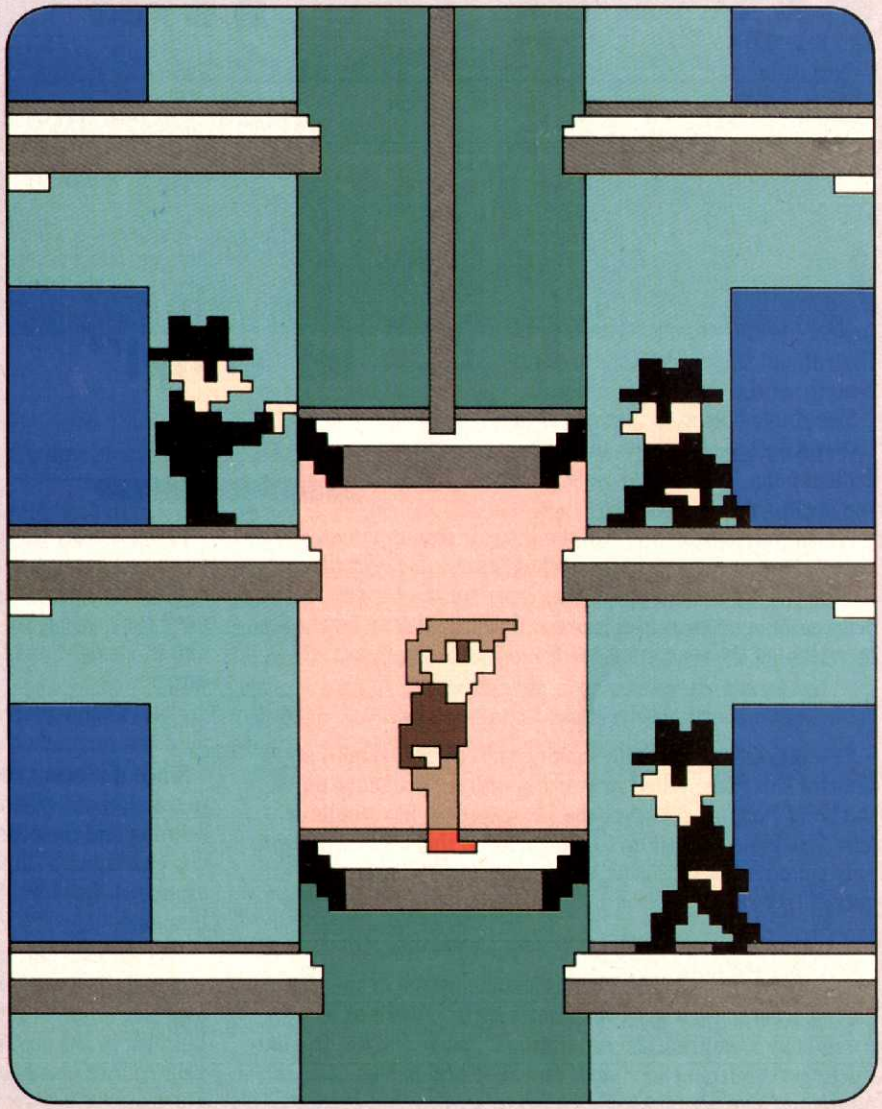
Most arcade games are straightforward—the players with the quickest hands and the quickest minds achieve the highest scores. But sometimes a game will have a hidden trick in the program that will allow *anyone* to rack up big points—*if* they know the trick. Here is a situation that involves one of these devices. Would *you* be able to use it?

THE CRISIS:

There are these two guys on the floor above who are about to kill you. There's another one on the floor below. If you try to shoot any of them, they'll shoot you first. Should you just roll over and die?

THE SOLUTION:

No! Jiggle the joystick up and down for two seconds so that you stay between their line of fire. The guy on the bottom will then walk toward the elevator shaft. When he gets right next to it, move down and jump on his head.



ILLUSTRATIONS BY NINA WALLACE

BEAT IT!

TRACK & FIELD

By Bob Guerra

Anyone who considers arcade games a passive form of entertainment for anti-social kids hasn't seen *Track & Field*. Never before has a coin-op caused such fierce competition among so many types of gamers. What's so special about Konami's arcade sensation? It's a head-to-head contest of skill and physical endurance that lets armchair-athletes compete on an even basis with superjocks.

Although *Track & Field* can be played solo against the computer, the *real* fun starts when two players square off against each other for six grueling events that separate the gold-medalists from the also-rans. The events are (in order) the 100-Meter Dash, Long Jump, Javelin Throw, 110-Meter Hurdles, Hammer Throw and High Jump. In each case, three buttons are used to control your on-screen athlete.

The two front buttons are used to make him run. With most events, the buttons must be rapidly tapped either by alternating with two hands on both buttons, or by using two fingers on a single button. Most players achieve their fastest running speeds by using two hands. For the Hammer Throw and the High Jump, the run buttons are only used to set the athlete in motion.

The single button to the rear of the two run buttons is used to make the athlete jump, or throw an object such as the javelin or hammer.

It also controls the angle of the jump or throw. Usually, the longer the jump/throw button is held down, the wider the angle. The optimum angle of trajectory for most events is 45 degrees. When the button is pressed, the angle can be checked by watching the readout at the bottom of the screen.

"When the hammer is at the right spot for a toss, it will turn red for an instant. On the 9th spin, let 'er rip!"

100-METER DASH

Few players have trouble making the required qualifying time for this race. Whether you win or lose, you move on to the Long Jump if you cover the 100 meters in 13 seconds or less. The important thing to remember in the dash is that you only get one shot at this event, so give it everything you've got.

LONG JUMP

The key to a successful jump is a combination of speed and precise timing. First get your runner sprinting as fast as possible by assaulting the run buttons "bongo"-style. Use only the fingertips from each hand, and keep arm movement to a minimum. The action should be lightning-fast, but mainly controlled from the wrists.

Speed is important because the faster your athlete is moving when you press the jump button, the further he will travel once airborne. Timing is also critical because jump distance is measured only from beyond the foul line. Therefore, you'll want to get your runner as close to the line as possible before jumping. If you foul by crossing the line, you'll lose one of your three chances to qualify.

The amount of time that the jump button is held down once it is pressed is important. The angle increases rapidly, so be ready to release at 45 degrees. With sufficient speed and a jump from close to the line, the angle may be off by as much as 5 degrees either way and still yield a qualifying jump.

JAVELIN THROW

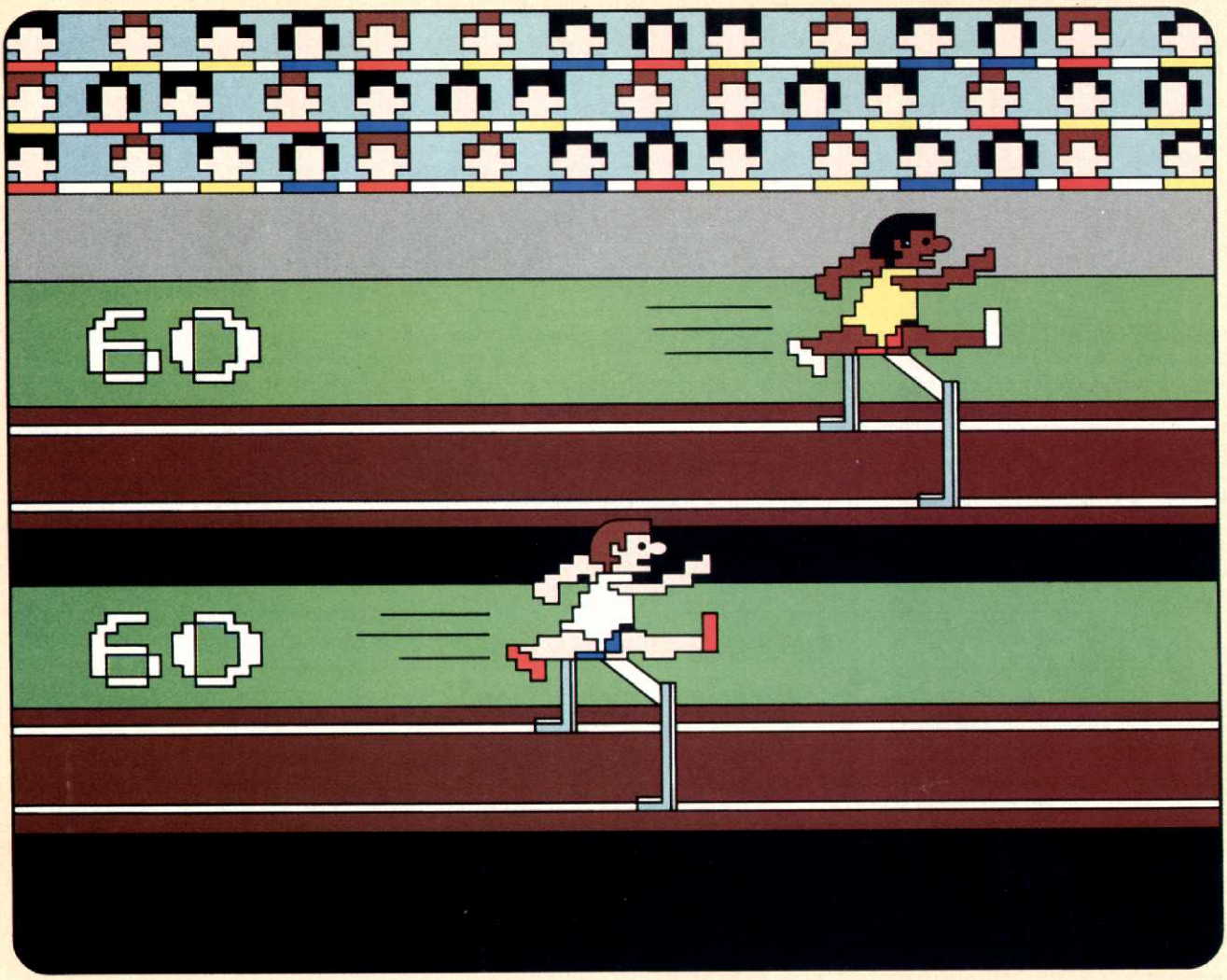
The strategy for a successful Javelin Throw is exactly the same as the Long Jump. Get the runner moving as quickly as possible, and hit the jump/throw button right before the line. For some reason, many players end up wasting one or two attempts by over-running the line. To avoid this, watch for the ten-meter mark as you're running. When you pass it, take only a few more strides before hitting the button. It's better to stop a little short of the line than to lose a turn by fouling.

If you qualify on your first attempt, you should use your next two turns to try for the 1,000 point bonus. Run up to the line in exactly the same manner, but this time hold the button down until the angle reads 80 degrees. This will send the javelin almost straight up off the screen, where it will hit the bonus target.

110-METER HURDLES

Since this event requires you to jump ten times while running, many players like to use one hand to control the running and the other to make the jumps. This works fine if you can tap two fingers rapidly enough to get your runner to top speed. But for most people, two hands are still quicker than one.

The easiest, most accurate way to time your jumps is by watching the *meter marks*, not the hurdles, that your runner passes. For meters 10 through 70, the marks appear before the hurdles, in the positions that you should jump from. Each time your runner passes in front of a mark, use your fastest hand to hit the jump button, then quickly resume running. After the



Don't time your jumps by watching for the hurdles. Watch the meter marks. When you pass a mark, hit the jump button.

seventh hurdle, the numbers will start appearing *after* the hurdles, but by then you will have built up a rhythm that will carry you through the rest of the race.

If you are used to playing against the computer, and then take on a human opponent, make sure you know which runner you are controlling. It's embarrassing to think you've run a great race, only to realize that it's your competitor who's won, and your athlete is still walking into hurdles 40 meters back.

HAMMER THROW / HIGH JUMP

After you start your athlete spinning by tapping one of the run buttons, count the revolutions. With each one, you will hear the sound of the hammer cutting through the air. When the hammer is at the proper point in the revolution to be released, it will turn red for an instant. The moment the hammer turns red for the ninth time, let 'er rip! If you're slightly early or late, you may end up wiping out a few spectators, so be careful. Just make sure that the angle is in the 45-degree vicinity.

The final event is also a difficult test of timing rather than speed. Once you get your man off and running, don't watch for the high-jump bar. If you do, you may jump too early. Instead, count the number of footsteps as he approaches the bar. On number ten, go for it!

Since the angle is now controlled in the *opposite* manner from the previous events, the *quickest* release will result in the most vertical jump. This is exactly what you need to give your runner the height needed to clear the bar. As he approaches the apex of his jump, decrease the angle to move him out over the bar. A few final light taps will straighten out his legs so his feet won't get caught on the bar. Don't be overly concerned with the exact angles involved. Focus all attention on the athlete, and try to get a feel for the proper technique.

EAT YOUR WHEATIES!

Unfortunately, no matter how well you do, when you successfully complete all six events, the game ends. By that time, however, a rest might be just what the trainer ordered. The tips in this article will get you off to a running start in your race for the gold. It is up to each video athlete, however, to train hard and eat his or her Wheaties.

MINIMUM POTENTIAL: 65,000

BEAT IT!

BLUE MAX

Strategy for many aerial combat games can be reduced to "Destroy enemy aircraft and installations while avoiding your own destruction"—but *Blue Max* by Synapse Software requires a lot more than the simple "shoot and scoot" techniques that will get you through most video dogfights.

In addition to annihilating enemy biplanes, tanks, bridges, factories and other strategic locations while dodging anti-aircraft fire, you must also master takeoffs, landings and the fine art of strafing. In short, *Blue Max* is a realistic war game that requires total concentration as well as a quick joystick.

STRATEGIES

Begin at the Option Menu by choosing Gravity Off, Pilot or Reverse Control, and the Beginner Level. The lack of gravity will allow you to fly at a steady altitude without constantly pulling back at the joystick. Pilot or Reverse Control means that you will have to pull back on the stick to climb, and push forward to dive. Since most flight games work similarly, it will probably be the way you're most familiar with.

The first (and most important) aspect of the game to master is the instrument panel. Consisting of both a Control and a Damage display, this strip at the bottom of the screen provides you with information about everything from your speed and altitude to the amount of fuel you have left.

The damage caused by enemy fire is randomly selected. After all four damage indicators are lit, the next hit will destroy your biplane. In addition, the background color of the control bar changes to indicate specific flight conditions. When the bar is blue, the enemy biplane is at the same altitude and can be shot down. An orange bar means you're in strafing range. Below an altitude of 20 feet, the bar will flash yellow to warn of an impending crash.

Once you've familiarized yourself with the instrument panel, it's time to take to the skies. As you taxi down the runway, watch the speedometer. When you hit 100 mph, pull back on the stick. Bring 'er to about 23 feet and start strafing the tanks and other ground weapons.

Although you receive points for almost anything you shoot, the important targets will be clearly marked. Bridges and buildings bear flashing blue Xs, while biplanes, boats, cars and trucks will flash blue. In order to advance to higher levels and, ultimately, conduct a final assault on three special targets in the city, you must obliterate most of these marked targets.

As you strafe, stay as close to the river as possible without flying directly over enemy guns. Also, don't let the wind lift you into the line of fire. If a "W" appears, pull up quickly.

One advantage to maintaining strafing altitude as much of the time as possible is that most enemy planes also fly in this range. When the "P" appears, use the enemy location indicator to help find the right altitude. If the plane is approaching from the rear, wait until he passes over or under your plane; then find the proper altitude and blast away.

"If a plane comes from behind you, wait until he passes your plane, then find the correct altitude and blast him out of the sky."

In order to bomb cars, boats, bridges, buildings and other tempting targets, position your plane slightly to the bottom left of the target and push the joystick sharply forward while pressing the button. The exact position will depend on your altitude. Since bombing results in a drop in altitude, pull up out of strafing range before you try it.

Targets such as bridges may be bombed twice for extra points by first bombing the left side from an altitude of 35-40 feet, and then (keeping your finger on the button) sliding to the right and quickly dropping another.

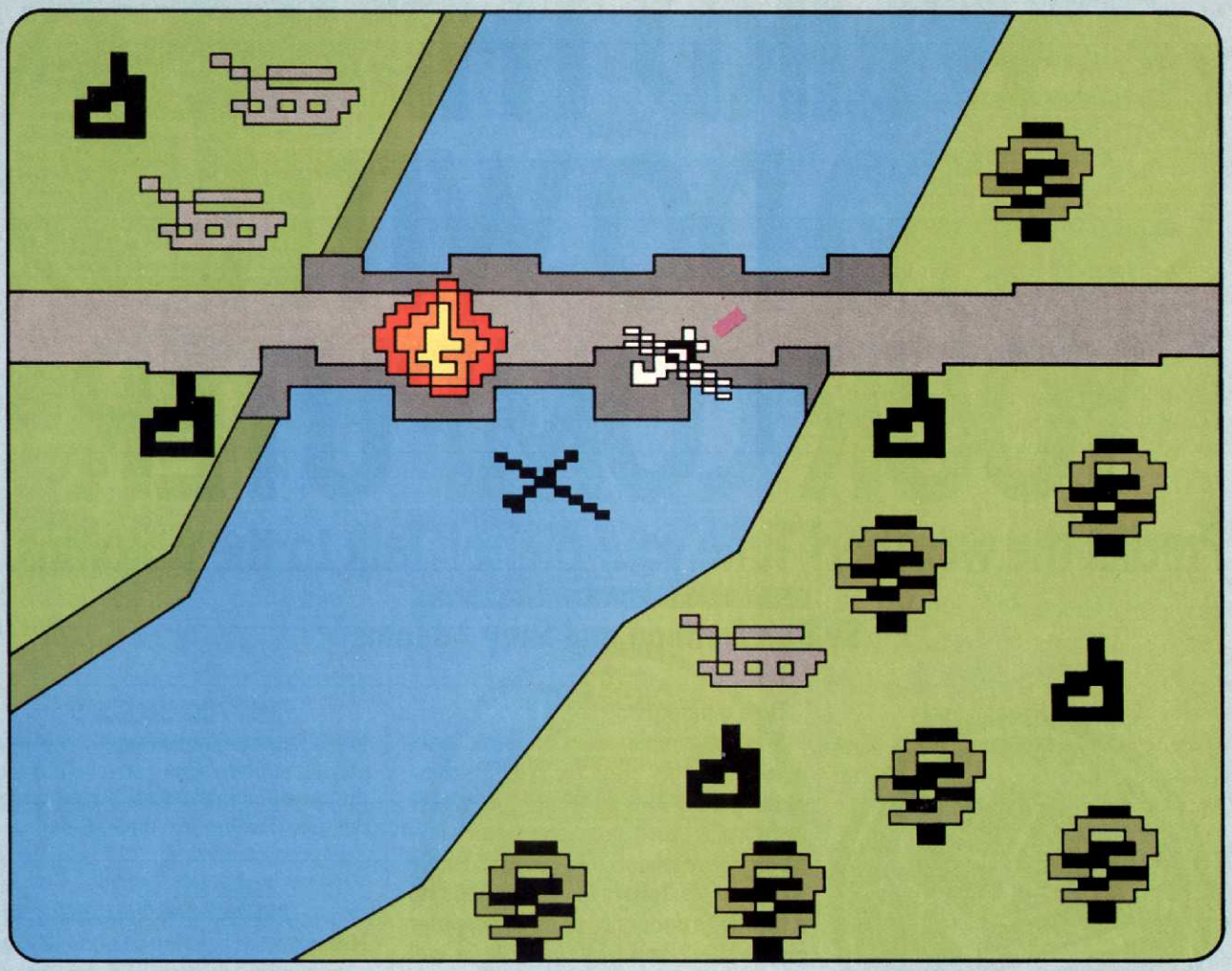
Bridges in the C-64 version can be flown under for a 280-point bonus. Simply lower your plane to either four or five feet over the water and "thread the needle." If the "W" appears during such an attempt, pull up to safety.

When bombing moving vehicles on the road, always try to bomb the road just ahead of the car or truck. This way, you'll get an extra 10 points each time. Although it's impossible to strafe these land vehicles, boats can be blown right out of the water by strafing along the river.

To avoid getting shot up while having all this fun, keep moving from side to side. Pay special attention to the areas of the sky that show the red puffs of anti-aircraft fire, and stay clear. Remember, you've only got one biplane. Take care of it!

When about half of your fuel is gone, you'll hear a bell signal that you're approaching a friendly airstrip. If you've sustained no damage this time up, you may choose not to land. Your remaining fuel will always get you to the next airstrip, provided you don't have a fuel leak. The advantage to passing up an unnecessary landing is that it may help you reach the end of your mission sooner. Your final rank is partly determined by the length of time it takes to complete the mission.

If you do choose to land, follow these steps: 1) When you hear the bell, lower your landing gear by pressing the button while pushing forward on the stick. 2) Lower your altitude to strafing range. 3) Once you've cleared the last trees before the runway, bring your plane straight down so that the fuselage is



It is actually possible to bomb a bridge twice in the same bombing run. Here's how you do it—Position your biplane all the way to the left on the screen, at about 35–40 feet above the ground. Drop one bomb to take a chunk out of the bridge. Then, leaving your finger on the fire button, slide your biplane slightly to the right. As soon as the first bomb hits the bridge, let go of another one. This will take out another chunk of the same bridge.

on the right edge of the runway and the right wing is on the grass. This way, you won't get bombed by planes passing overhead.

Just be sure to get the plane down early enough to have plenty of time to gain the required takeoff speed before the end of the runway. If there are no trees at the foot of the runway, don't be afraid to roll onto the grass if you need the distance to get the speed.

Following each landing opportunity, you will begin at a new level (provided you've destroyed at least three or four specially marked targets the last time up). While most levels are similar to the first, one is of special importance. When you begin flying over a road flanked by enemy airstrips and hangars, you're getting close to your final destination and your performance at this point will largely determine the outcome of the game.

Although the buildings to the left of the road are worth more points than those on the right, only buildings on the right will be marked with Xs. Often, however, there won't even be many of these. The real key to success on this level involves the flashing blue biplanes that zip across the sky. Therefore, stay on the right at an altitude of about 50-60 feet, carefully dodge enemy fire while bombing the marked buildings, and be ready to wipe out any blue biplanes that have the misfortune of invading your airspace.

If you're successful at this level, the rest is child's play. Within a level or two, you will begin your approach to the city. You'll pass over a heavily fortified field of tanks and then you'll see the road. On each side, tall buildings line the street. Ignore them. Get down to about 35 feet as you cruise down the center of the street. Don't let the guns scare you. They're not too accurate. As you pass over the three white buildings in the center of the street, waste each one with a carefully timed bomb. When all three are in ruins, your mission is complete.

Return to your airstrip and, as the band plays *Hail Britannia*, check out the instrument panel to see whether your rank is Flying Tiger or Squadron Leader, or if you've earned the illustrious title, BLUE MAX!

MINIMUM SCORE POTENTIAL: 5,000

WEIRD THINGS TO DO WITH YOUR COMPUTER

Predict the weather! Tune your piano! Talk to the dolphins!

By Dan Gutman and Shay Addams

Tune a piano?!

A lot of people seem to think computers are only good for playing computer games and performing business tasks with word processors and electronic spreadsheets. But do you really write enough letters to justify spending a thousand dollars or so for a computer and printer? And how many of us will ever use a spreadsheet in our entire lives? How many even know what a spreadsheet *is*? So it appears that, aside from playing games, computers are pretty useless to most people.

Wrong—because a computer is a wizard at manipulating letters and numbers with brain-numbing precision and speed. It can accomplish an infinite number of tasks—some so strange and offbeat, you never would have imagined them.

Like tuning a piano. Each of the 88 keys on a piano corresponds to a different frequency in the audio spectrum. When your piano goes out of tune, you've got to call a professional piano tuner to fix it—unless you've got *Piano Tuner*, a $29.95 disk from the Atari Program Exchange. *Piano Tuner* uses the sound capability of Atari computers to produce the proper 88 pitches so you can tune the piano yourself.

The Atari Program Exchange is an organization that distributes strange and wonderful software written by Atari computer owners. You can buy programs to plot your astrological chart, correct the color on your TV set, figure out the mileage on your car, learn Morse code or sign language, or map out all the constellations in both hemispheres. Perhaps the weirdest program offered by APX is *Bowler's Database*, which keeps track of your bowling scores from week to week. You can write to APX at: P.O. Box 3705, Santa Clara, CA 95055.

You don't have to own an Atari to do weird things with your computer. There are hundreds of small software companies out there making offbeat and useful programs for just about every home computer. Here are some other unusual uses that you may find interesting . . .

BEAT FOOTBALL ODDS

If the Patriots are favored by seven and playing at home, how often do they beat the spread? *Pro Football Stats* gives you the tips. (Eastern for Apple, C-64)

PREDICT THE WEATHER

Measure temperature, humidity and atmospheric pressure, and plot weather trends. (Vaisala Inc, for VIC-20, C-64)

LEARN RUSSIAN

Help prevent World War III by communicating with the Kremlin. (Russian Software, for VIC-20)

BE A POET

Learn the fundamentals of poetic meter with *Introduction to Poetry.* (Edu-ware, for Apple)

SPEEDREADING

If you had *Microspeedread*, you'd be finished with this article by now. (CBS, for Apple, IBM, C-64)

TALK WITH FISH

Dolphin Dialogue lets you create whistles and trills associated with dolphin language. (Syntauri Corp., for Apple)

ILLUSTRATIONS BY JEAN TUTTLE

MIX DRINKS

Hundreds of recipes for hooch hounds. *Compu-drink* also includes "Intoxometer." (Mariner Software, for Atari)

SELECT YOUR CAREER

Type in your interests and find out what job fits you best. (MMG Micro Software, for Atari)

TAKE AN I.Q. TEST

IQ64 is a 45-minute, 60-question exam that calculates your intelligence quotient. (Sunsoft, for C-64)

STUDY THE BIBLE

The instructions for *Bible Trip* read, "You spaceship has been caught in a time warp and you find yourself in Palestine..." (Smoky Mountain Software, for C-64)

GET A WORKOUT

Design your own exercise program with *Aerobics*. (Spinnaker, for Atari, C-64)

TRACK YOUR DIET

The Model Diet tells you if you're fit, or a pig. 2000 foods on file, including reindeer meat. (Softsync, for C-64, Atari, Adam)

STUDY TAROT CARDS

Look into the future the mystical high-tech way. (Warlock Software, for Apple)

STOP SMOKING

Or even start smoking. *Expando-Vision* flashes any subliminal messages you want on your screen. (Stimutech, for Atari, VIC-20, C-64)

ANALYZE YOUR PERSONALITY

Measure compatibility, career potential, values, etc. Find out if you're nuts. (Psycom Software, for C-64)

SEE A PSYCHIATRIST

Eliza listens to your problems and responds like a real shrink. (Artificial Intelligence Research, for Apple, IBM, C-64)

LEARN TO PLAY GOLF

Tom Weiskopf tells you what to do in any situation. (Home Computer Software, for Apple, C-64, Atari, IBM)

LEARN TO TYPE

How else are you going to use your computer? Try *Typing Tutor III*. (Simon & Schuster, for IBM, Apple, C-64)

LEARN ABOUT PREGNANCY

Pleasantly Pregnant tells you fun facts about your developing baby. (Festive Fare, for Apple, C-64)

HANDICAP DOG RACES

Pick the winners at the track and make a bundle. (3G Company, for VIC-20, C-64, Atari, Apple, TRS-80)

TUNE YOUR GUITAR

Who cares if you can't play? At least you're in tune. (Contemporary Computer Concepts, for VIC-20)

LEARN TO TELL TIME

It's About Time teaches children to read the standard clock face. (T.H.E.S.I.S., for Atari)

CHART BIORHYTHMS

Find out if you should get out of bed tomorrow. (Matrix Software, for Apple)

TEST YOUR COMPATIBILITY

Friends Or Lovers will tell you if you and your partner are a good match. (Alpine Software, for Apple)

IMPROVE YOUR MEMORY

Build your powers of concentration and attention span with *Memory Builder*. (PDI, for Apple, Atari.)

This is only the beginning. There are hundreds of other weird ways you can use your computer. We'll be showing you more of them in future issues of *Computer Games*.

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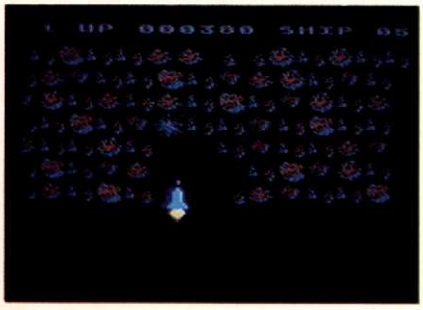
COMPUTER GAME BUYER'S GUIDE



MOON SHUTTLE D

Space shoot-outs will always hold a special place in the hearts of computer gamers. But for such a game to succeed in 1984, it has to have something not found in the hundreds of space games that came before it. Classics like *Space Invaders, Galaxian, Galaga* and *Demon Attack* thrilled us with hordes of marching, swooping aliens. There's no point in doing it again.

But the aliens are back in *Moon Shuttle*, a tired rehash of a tired Nichibutsu arcade game. Once again we move sideways and shoot up at five waves of Asteroids, "Expandos," "Blob Men" and other creatures. In *Moon Shuttle* they're very colorful and sometimes sprout lightning bolts when hit. Big deal.

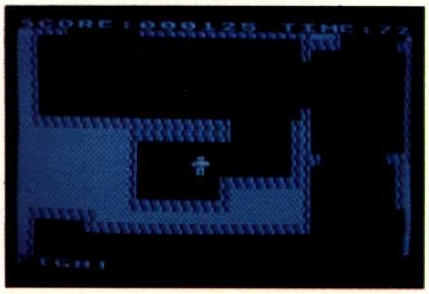
Datasoft, for Atari

THE COVETED MIRROR B

Locked in the tower of evil King Voar's castle, you'll have to escape and locate the missing piece of a magic mirror that's the source of his power. But the guard looks in regularly, and you have to be there when he shows up—or Voar uses the mirror to catch you and teleport you back into the cell. Each scene of this graphic adventure is colorfully depicted on the left two-thirds of the screen; an hourglass on the right side tells how much time you have left before you must head back so the guard won't know you're missing.

You'll explore a strange medieval town whose inhabitants speak in rhymes, and have to solve not-too-taxing puzzles to win their cooperation. The most unusual element of this game involves several arcade-type games that are part of the adventure. In one, you're a knight in a jousting tournament, and use the keys to control your lance. The action games are overly simple, but a step in the right direction—combining the best features of shoot-'em-ups and adventure games.

Penguin, for Apple

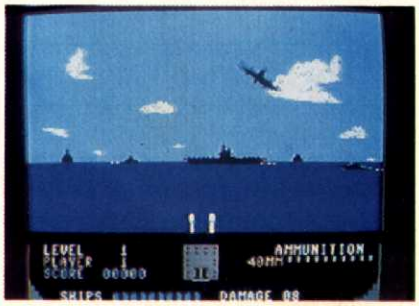


GATEWAY TO APSHAI A

This latest sequel to *Temple of Apshai* introduces sophisticated enhancements that deliver smoother, more enjoyable gameplay. For one, it's on a cartridge; you won't have to wait for the lengthy program to load. For another, a joystick is used to guide your adventurer through the 128 dungeons that comprise the maze. There are eight levels, with 16 dungeons on each one, and 60 rooms to a dungeon (that's 7,500 rooms!). Each dungeon has a different floor plan, and treasure is strewn from one end to the other.

The swordplay looks better here, and all the animation is fancier than in preceeding *Apshai* games. Function keys are pressed to select weapons, check your status, search for traps and hidden doors, and enter fight mode. A timer displays how much of your initial six and one-half minutes are left. When time runs out, you're automatically teleported to the next deeper level—and they get more tre acherous as you descend. At least you get five lives, and you'll certainly need them in the nonstop combat with snakes, ghouls and other assorted nightmares.

Epyx, for Atari and C-64



BEACH-HEAD A+

Most shoot-'em-ups require little more than moron mentality and a quick thumb to succeed. But *Beach-Head* may be the first shooting war game in which you'll need a calculator to hit 40,000 points.

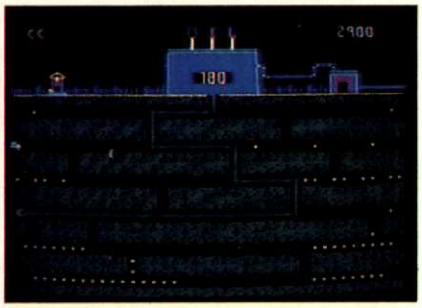
That doesn't mean it's boring. The game is five games in one. Each one is a completely different contest, but all of them lead you (Chief Commander of land and sea forces in the Pacific) to your ultimate challenge—capture the fortress of the maniacal dictator, Kuhn-Lin. This is no *Zaxxon*. It's *Apocalypse Now*, and your butt is on the line.

Your calculator comes into play at sequence four—"Battle Stations." Distant battleships and cruisers are shelling

your fleet. Your heavy guns fire long, arching, incredibly realistic 3-D shots, but you can overshoot or undershoot the mark easily. Since your shells go 100 meters longer with every .5 degree gun angle, you've got to figure out the perfect angle for your shots to hit the targets. And all the while, those splashes in the water are getting closer to you.

The action on land, sea and in air is not fast, but it is precise. The graphics are remarkable. It's almost like watching a John Wayne movie. One or two players. Pause feature. High-score table. You'll want to play "just one more game." Buy it today.

Access, for Commodore 64

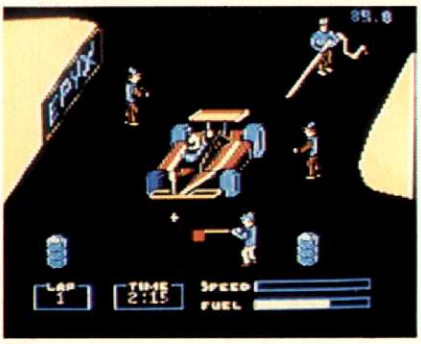


OIL'S WELL A

Fans of *Jawbreaker* will love this incredibly addicting eat-the-dots maze game. The premise is that you are sitting on the largest oil deposit in North America, and you've got to get it out of the ground before certain undesirables—"oozies" and land mines—sabotage your drilling equipment. Forget the premise. It's just like *Jawbreaker* except that a thick line (the drilling equipment) trails behind you wherever you go. So you can get killed even if the oozies don't touch you—they just have to touch the line. This changes your strategy drastically, and makes for a fast, fun challenge.

Your drill bit is a *Pac-Man*-like figure. You move him with the joystick and retract the pipeline with your fire button. Occasionally goblets will roll by worth 1,000 points. "Petromins" aren't worth any points, but they slow down the oozies. There are eight oil fields to drill, but just getting to the second one is quite a job. This may not be the most original maze game, but it is a fascinating challenge that will keep any fan of fast-moving maze games entranced over the long haul.

Sierra On-Line, for Atari and C-64



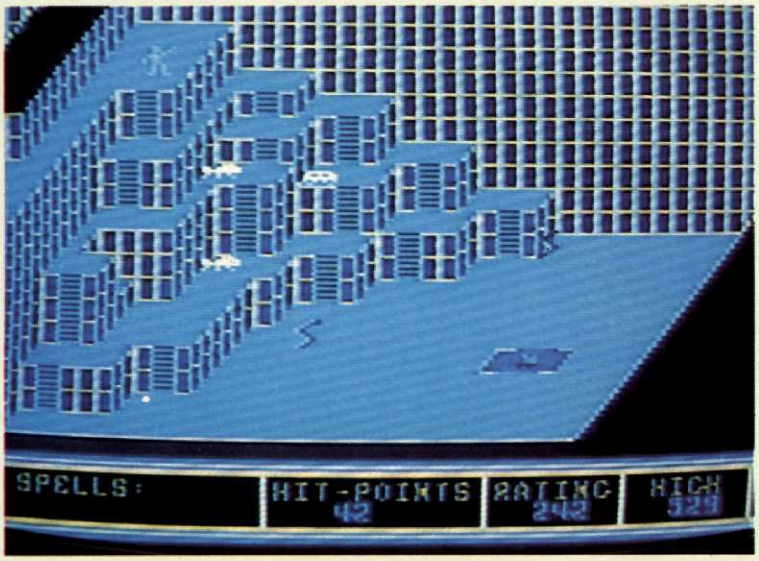
PITSTOP B+

Now that we have *Pole Position*, who needs another driving game? Well, this is the most innovative driving contest since *Night Driver*. It's simple—instead of crashing and miraculously getting a shiny new car as in most of these games, here you've got to pull into the pits every few laps to change tires and gas up.

The race itself looks more like Coleco's *Turbo* than the graphic excellence of *Pole Position*. The cars are blocky and you can't change gears. The real excitement of *Pitstop* comes when your fuel is running low and your tires need to be repaired (they turn red). You pull off the track and the screen is filled with your car and crew. While the seconds tick away, the other cars whiz by, their engines roaring. You slide the cursor to move your pit crew and get your car back in the race. As in real racing, it's those seconds in the pits that make the difference between defeat and victory.

For flat-out solo driving, *Pole Position* takes the checkered flag. Because of its novelty, *Pitstop* is fun mainly as a multi-

COMPUTER GAME OF THE MONTH



ZOMBIES A+

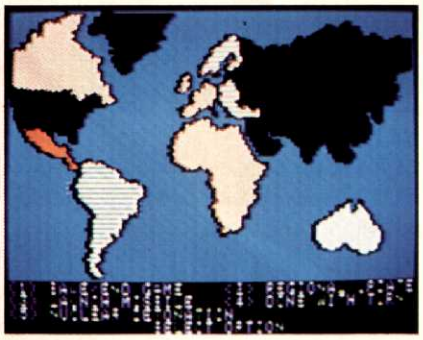
Vividly colored 3-D mazes and dungeons make this a visual knockout, and the animation and gameplay are also top-notch. You must race through a dungeon's many rooms to find a crown, then return to the entrance and enter another of the seven different ones. Along the way, ghouls, snakes and other creatures chase you; contact with them eats away at your hit points. When you're out of hit points, that's it—you only have one life. The creatures can't be killed, but you can slow them down by dropping crosses that they are unable to step over.

There are 74 rooms in all. Rivers run through some, others are laced with deep chasms. A lot of ladder-climbing is necessary to get around. The "Realm of Impossibility" dungeon is done with Escher-like artwork that's mind-bending just to look at. Two players can be on-screen simultaneously and must cooperate for success. If one dies, the other can revive him. Two difficulty levels are available, and high scores can be saved to disk. It's an unusual action game that demands a certain amount of strategy, and *Zombie* deserves a special award for originality.

Bram, Inc., for Atari and C-64

player game—four can play at once. The player with the best time wins the most prize money. The game gives you the option of three difficulty levels, three, six, or nine lap races, and six different (but very similar) tracks.

Epyx, for C-64 and Atari

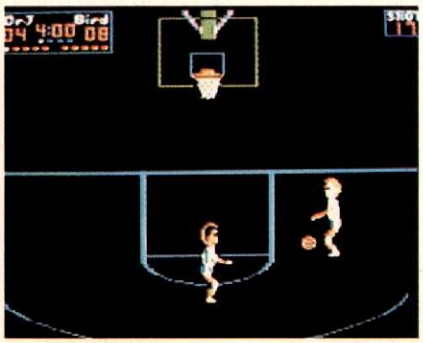


EPIDEMIC D

I just nuked Russia. Didn't really want to wipe out 259 million people, but the game got so boring, it was either that or fall into a deep sleep. The "nuke" option is intended as a last resort to stop the spread of deadly diseases that have arrived on earth via asteroids. By viewing a color-coded world map, you're supposed to decide which of two types of remedies to apply to infected countries, then check a "regional update" screen for the effects, current number of casualties and other data.

Next a radar map shows more asteroids, so you can pick one to target during the missile launching phase. The strategy involves formulating a coordinated plan for containing the infections in their country of origin. At least it's an original, if somewhat morbid, concept, and someone out there is bound to like it.

SSI, for Apple



ONE ON ONE A-

As you can see from the photo, this is absolutely the best computer basketball game in existence. Of course, we can't think of any others. Regardless, here is what you can and cannot do in *One on One* . . .

CAN: Be either Larry Bird or Julius Erving. Play against your opponent or the computer. Play until a certain time limit or point total. Select Winners Take Out or Losers Out. Jump, shoot, steal the ball, travel with the ball, rebound, foul, call time-out. You can go on a hot streak, see instant replays, and even shatter the backboard with a slam dunk.

CANNOT: Play full court. Have any teammates. Dribble the ball (it's done automatically). Aim your shots (once you push the button, the ball just soars toward the rim).

The game has subtleties not found in other sports games. As the *real* Dr. J and Bird have their strong points, so do these characters. Dr. J is quicker and can hang in the air longer. Bird is more physically intimidating and shoots better from the outside. Both have their "pet shots" you must learn to win.

There are two flaws. One, the Apple has just one joystick, so one player has to use the keyboard. Two, you are powerless to control the path of your shots. Still, it's a remarkable simulation, and great fun.

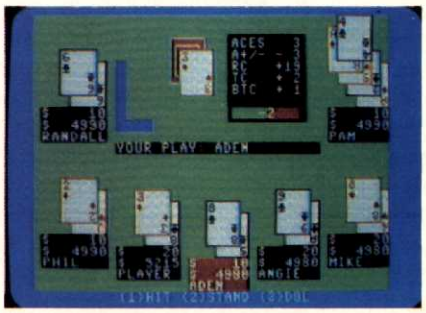
Electronic Arts, for Apple. Also available for C-64 and Atari

INFIDEL A

Graphics in an Infocom adventure? Yes, Virginia, though they are limited to simple depictions of wall panels covered with Egyptian hieroglyphics. Deciphering them is crucial to solving the many riddles of the Lost Pyramid (after finding it, of course). It's the first in the "Tales of Adventure" series being written by Michael *(Suspended)* Berlyn. In it, you act out the role of a professional explorer bent on looting the pyramid of its vast treasures.

The pyramid is wall-to-wall with death traps designed by the temple priests to stop graverobbers like you from reaching the Queen's final resting place and her solid gold sarcophagus. As you might expect, it's a tough game. Expect to be wandering around inside *this* adventure longer than you might have in previous Infocom games—but at least you'll have some excellent prose on-screen to read along the way. And the hieroglyphics and sparse graphics add a new dimension to the gameplay.

Infocom, for Apple, Atari, C-64, IBM PCjr and others



KEN USTON'S PROFESSIONAL BLACKJACK A

Want to learn some winning blackjack strategies instead of just killing time at a computerized card game? Take a few lessons from Ken Uston, now barred from playing 21 at casinos around the world because of his successful card-counting technique. His and several other systems are programmed into the game, in which up to seven people can play against the dealer. Select one from the menu, and the program tells you when you've made an incorrect play or bet (accomplished from the keyboard). The systems included range from Basic Strategy to Uston's Advanced Point Count, or you can enter your own.

You can play according to the current rules of various casinos in Vegas, Reno or Atlantic City—just pick one from another menu. Or create a file with the rules of casinos from as far away as Baden Baden and Macao. This makes it uniquely suited for practicing by the same rules and conditions under which you'll later play for keeps. Computer-orchestrated drills for mastering the card count and playing strategies are invaluable aids to Uston's 48-page manual on "the winningest system."

Intelligent Statements, for Apple, C-64, IBM PC

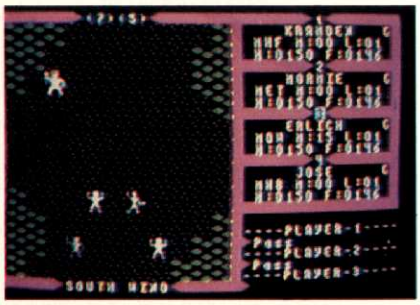
CLUE #4: ARE YOU A MINDLESS GRUNT?

DROL A+

Drol had me drooling—it's one of those "just *one* more round" kind of games that is noteworthy for its remarkable graphics and animation. Into the depths of an ancient stone structure it sends you, to save a family (and their pets) from an evil witch doctor. Dozens of brightly colored beasts assault you on the way, with everything from venom-spitting sea horses to flying toothbrushes.

Two characters must be saved in each screen to advance to the next one; after freeing Mom in the third one, you'll see a TV-quality animated intermission. Then it's back to Square One, but things are tougher—not just faster—the next time around. On top of the superb looks and excellent playability, *Drol* incorporates a few deftly executed humorous touches. Kill the big bird and it turns into a cooked turkey on a plate, which keeps hopping down the hall.

Broderbund, for Apple, Atari, and C-64



ULTIMA III A

Evil stalks the land of Sosaria once again in this final (?) installment of Lord British's epic role-playing adventure. If you haven't played the first two games in the *Ultima* series, you can't fully appreciate the distinct enhancements in number three.

Characters are created in the same manner, by choosing from five races (human, elf, etc.) and 11 types (fighter, wizard, etc.). But here you can form an exploring party of up to four characters. When moving across the terrain, they travel as one unit; in combat scenes, each is individually represented and controlled. Weapons and treasure may be swapped back and forth among characters. Different music accompanies each locale you visit, where the color graphics remain as impressive as ever. The interiors of dungeons and certain other locations are depicted with a 3-D effect instead of floor plan-style as in previous games. These extra features make for more complex, challenging gameplay, so you can count on exploring the hidden realms of this "reality" for months to come.

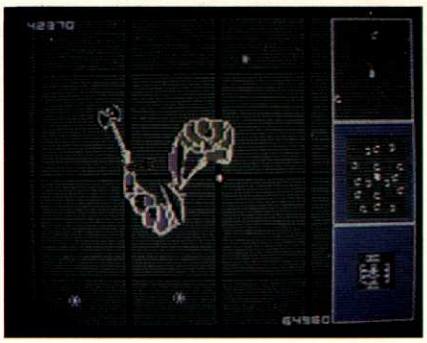
Origin Systems, for Apple, Atari

GRUDS IN SPACE B

Gruds are funny-looking aliens who can make or break your efforts to complete this graphic adventure. It starts on the bridge of your ship in deep space, where you pick up a distress signal and rush to rescue a ship that's in trouble on Pluto. First you have to go to Saturn for the fuel the stranded crew needs. You must figure out which buttons to push on the control panel in order to fly to Saturn, then do the same to teleport to the local colony, home of the Gruds.

There are caves, roads and houses to visit, and plenty of strange beings to deal with in your travels. Every scene is quickly sketched in a cartoon-like style that occasionally uses a bit of animation. Two-word commands will suffice in most cases, but longer commands are permitted. If you like graphic adventures, this is a good bet—it's not as difficult as *Blade of Blackpoole*, but not so simple you'll race through it too quickly.

Sirius, for Atari and Apple



THE BILESTOAD B+

If you enjoy hacking off arms and legs and like lopping off heads with hatchets, you'll love *The Bilestoad*. This 25th-century game, for some reason, puts you in medieval armor and tosses you into a battle to the death with a similar computerized "meatling" or another player. The aerial view makes it look like two lobster tails dancing, but arms and legs really fly off and blood splatters. The game is difficult to learn (nine keys control your meatling) but well worth the effort.

Datamost, for Apple

MILLIONAIRE A

Move over, Monopoly. *Millionaire* is a wickedly original stock market simulation that will have you trading, borrowing and making investments until you either make a million or lose your shirt. The all-text game is based on actual market trends. You start out with $10,000 at week 14 in a 91-week Wall Street session. There are 15 well-known stocks on the board. Each week their prices change and financial news is flashed on the screen. You can do anything you want with your money, and you'll be busy for hours buying, selling and learning about the stock market. For adults and interested teenagers.

Bluechip, for Apple, Atari, C-64, TRS-80

SCHOOL'S OUT!

THE LATEST IN EDUCATIONAL GAMING

ATARI MEETS SESAME STREET

By Dr. Ray Dimetrosky

Atari is working with the Children's Television Workshop (who produce *Sesame Street*) on educational programs for children between three and seven.

To play any of the games, you must purchase a $15 "Kid's Controller." The Kid's Controller is large, so it can be expertly used by young children. Each game comes with a colorful keypad overlay that fits on the controller. The overlay features at least two raised circles, usually with arrows printed on them. The child must push the raised circles to move the screen characters. Each game also includes a multicolored manual with a story.

Big Bird's Egg Catch

In *Big Bird's Egg Catch* you control farmer Big Bird, who must catch eggs in the basket on his head. The child must push the appropriate arrow on the keypad to move Big Bird to the right or left until he is standing underneath the correct chute. There are ten levels of play, and the demands of each game are strikingly different. On level one the only requirement of the child is to press the correct button. In game two there are three or four chutes, and in game three the chutes are zigzagged. The first major change occurs in game four. Now, Big Bird must be placed directly underneath a chute, not an easy task. (It requires more precise eye-hand coordination.) In games five and six, many of the chutes cross each other, so the child must distinguish the path from distracting elements. Games seven through ten feature twists such as invisible eggs and disappearing chutes.

Big Bird's Egg Catch is a top-notch game because it combines the fun of video games with well-developed educational objectives. The designers have added extra twists that make the games more enjoyable. They include golden eggs that are worth extra points and an additional screen that shows Big Bird counting the eggs you have caught. Since the games feature the *Sesame Street* characters, children will feel comfortable with the familiar on-screen images. *Egg Catch,* which features a great musical soundtrack, is nonviolent, will appeal to both boys and girls and will challenge children from a wide age range.

Cookie Monster Munch

Cookie Monster is standing at the bottom of a maze. Beneath him lies an empty cookie jar that must be filled with cookies that are scattered around the maze. In games one, two and three, Cookie Monster's mission is straightforward. In games four, five and six, the contests are timed, while in games seven, eight and nine, there is a "Cookie Kid" who chases you, trying to steal your cookies. Game ten is a timed contest with invisible mazes.

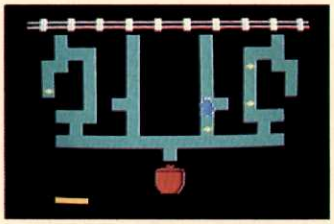
Of the three initial Children's Computer Workshop games, *Cookie Monster Munch* is the most fun. The graphics are delightful, the musical theme is pleasant and there's a wonderful intermission; after each completed maze, you get a close-up view of Cookie Monster rolling his eyes and chomping away on his cookies. This game teaches children how to trace a maze pattern (which helps to improve eye-hand coordination), and how to follow directional arrows (which introduces the child to print symbols).

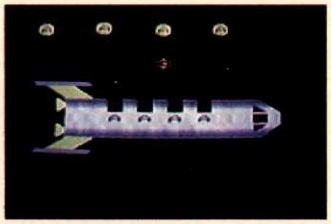
Alpha Beam with Ernie

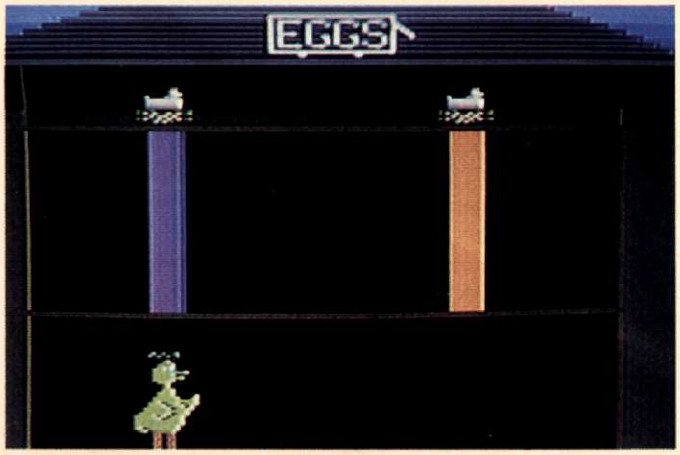
Alpha Beam with Ernie is the most obviously educational game of the three. You control a saucer that hovers over a large space ship. The large ship has four openings with letters printed under them. Above you, a number of letters are floating in the sky. You must fly your saucer beneath the letters, beam them into your saucer and bring them to the appropriate opening on the big ship.

Alpha Beam is an excellent educational tool, mainly because the 12 game variations offer something for everyone. In games one and two, all of the same capital or small letters are used, so even young children can play. In games three, four and five, four different letters appear, though they are presented in alphabetical order. (In game five the child must also match the correct small and capital letters.) Games six, seven and eight require the child to play with a partner (one child chooses a letter, while the other child must match his/her choice). The biggest surprise appears in game ten: there are five letters and they don't match those in the ship! The child must change the letter by pushing the "beaming down" button repeatedly and watching the letters of the alphabet go by until they reach the right one. If this doesn't teach the alphabet, what will?

Sesame Street was never like this. Below, Atari's* Cookie Monster Munch, Alpha Beam With Ernie, *and* Big Bird's Egg Catch *combine the fun of video games with education for children between three and seven.







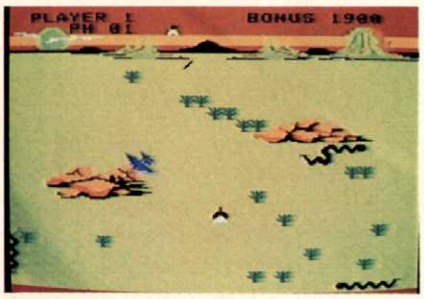
VIDEO GAME BUYER'S GUIDE

CONGO BONGO C-

You are a hunter on a three-screen safari. The first part of your trip is a climb up Jungle Mountain to reach Congo Bongo, a giant gorilla. Next, you trek across Jungle River by hopping on hippos, lily pads and man-eating fish. Finally, when you reach screen three, it's your turn for revenge. You get to light Congo with "play" fire.

The VCS version of this arcade game is, for the most part, a disappointment. The primary reason is the graphics which, while colorful, are pretty awful. Screen one is particularly poor. The coconuts that Congo tosses at you are translucent and at times it's difficult to follow where they are going. Just when you think you're about to be hit, they pass right through you. If the soundtrack of the original annoyed you, wait until you hear *this* version. The same notes keep playing, and playing, and playing. The play action isn't much better.

Sega, for Atari VCS

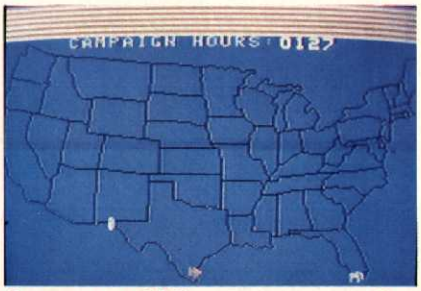


SLITHER B-

The premise here is simple. You are surrounded by slithering snakes and dinosaurs which must be eliminated. But one shot to these critters may not be enough; a blast to a long snake results in either one faster short snake or multiple snakes. All the while, a bonus timer is counting down, and the action is frantic.

One look at *Slither* and you'll realize why it never achieved the arcade success of *Centipede* or *Millipede*. There isn't enough variety in the creatures that attack you, so the game quickly becomes boring. There are some neat special effects here, like invisible snakes and night and day scenes, but overall the graphics are nothing to write home about. When you hit a pterodactyl or tyrannosaur, they immediately vanish instead of displaying the points you have just earned as in *Centipede* or *Millipede*. The main thing *Slither* has going for it is the great roller controller that's packed with the game. It really improves your ability to maneuver around the screen. So *Slither* is acceptable, but let's hope Coleco can come up with an outstanding game to take full advantage of the roller controller.

Coleco, for ColecoVision



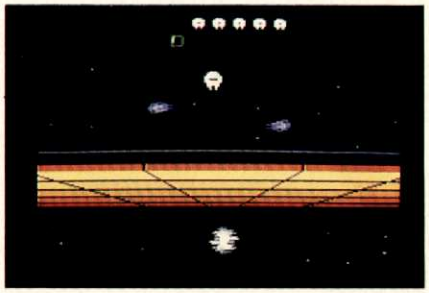
CAMPAIGN '84 B+

They say anybody can grow up to become President of the United States. Now you can be President even if you're not a grown-up. *Campaign '84* lets you travel across the country as a Republican or a Democrat, shake hands, support weird issues ("Lower Pet Rock unemployment"), and finally, win the election —*if* you've picked up enough electoral votes along the way. A chorus of *Hail To The Chief* is your reward.

On the plus side, *Campaign '84* changes the conception of "video game." You're not helping frogs across the street here, you're in the middle of a realistic (but very strange) predicament. The game is also very funny and educational —you have to learn about the U.S. political system and electoral vote totals in order to win.

On the negative side, *Campaign '84* is somewhat slow, especially the hand-shaking sequences. If you're looking for *Zaxxon*, take your business elsewhere. But if you're looking for an innovative mind game, cast your vote for *Campaign '84*.

Sunrise, for ColecoVision and Adam



RETURN OF THE JEDI C+

The potential for a game based on *Return of the Jedi* was enormous. Unfortunately, this program never catches the excitement of the film. When the game begins, you find yourself flying beneath a large energy shield that protects the Death Star. In your first battle, you oppose the Imperial warriors. Once you've destroyed a few of the enemy, holes begin to appear in the energy shield. Now you wait for the outer layer of the shield to disappear, and then dart through the hole. Next, after a quick trip through hyperspace, you come face to face with the Death Star. You must fire at the walls of the Death Star and destroy it one piece at a time. Your major obstacle now is the Death Ray, which moves around in the Death Star. If you can avoid the Death Ray and destroy enough pieces of the Death Star, you can finally eliminate the energy core.

Return of the Jedi is colorful, and there's a great special-effects scene when you travel through hyperspace. But thanks to the sound effects, which are the usual VCS explosions, and the routine play action, you'll quickly feel like you've seen all of this before. The first scene is a little too easy, while the Death Star battle is too repetitive to be fun. As a result, you may end up more frustrated than challenged.

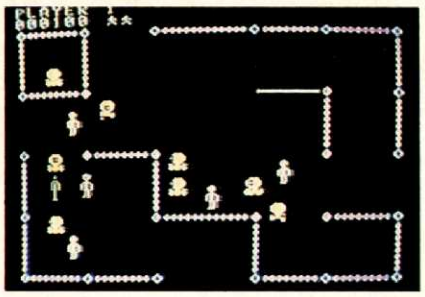
Parker Brothers, for Atari VCS

BC'S QUEST FOR TIRES B+

If you like nothing better than to watch hours of cartoons, then boy, does Sierra On-Line have a game for you. In *Quest for Tires* you also get to control the action. You are Thor, and must rescue Cute Chick, who has been captured by the dinosaur. You jump rocks and holes to reach the petrified forest. Next, duck under low tree limbs, come to the river and jump on the turtles to cross. Grab onto the Dooky Bird to travel over the lava pit, gain speed and jump over the cliff. Now, scamper past the volcano (you'd better avoid those falling boulders) until you reach another river. If you manage to jump across the river, then you reach the dinosaur.

Quest for Tires has excellent colorful cartoon graphics and fitting sound effects. There's real cartoon fun here. When Thor falls down he gives a shocked look, and in typical cartoon style, stars appear over his fallen body. There is one drawback to this game, though. Just as in Coleco's *Smurf Rescue in Gargamel's Castle*, teenagers and adults may find the game to be repetitive. You do more here than in the Smurf game, but the play action is very similar. Younger children will be delighted with *Quest for Tires*, while adults will find it to be a temporary amusement.

Sierra On-Line, for ColecoVision

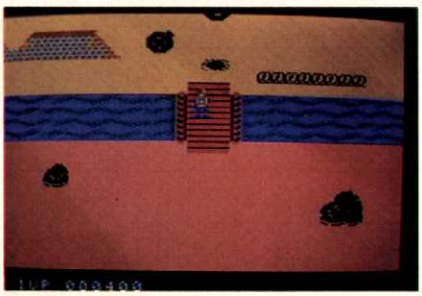


FRENZY B

Evil Otto and his gang of robot attackers are after you again. This classic arcade game has been translated successfully to the ColecoVision. Now the only questions is: how sick are you of battling Otto and his friends?

The nice thing about *Frenzy* is that you can learn all of the rules of the game in about two minutes. As in *Berzerk*, Otto's previous romp through the mazes, to be victorious you must have fast reflexes and be able to quickly plan out strategy. You can never really win, since victory on one screen simply leads you directly to another one. Don't expect to find great graphics here—they're adequate but nothing to brag about. If you're one of those people who goes searching in the back of the arcades for an old *Frenzy* or *Berzerk* machine, then this is the game you've been waiting for. Others might question why they should spend $25 for the same old thing, when there are so many new and exciting games out there.

Coleco, for ColecoVision

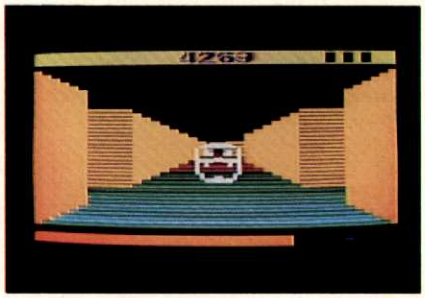


FRONT LINE D

You're in the Army now. As a foot soldier, your goal is to invade enemy territory and destroy their fort. You are armed with a rifle and hand grenades. If you make it to the end of the road, you reach the brush. Now the enemy is battling you with tanks. So, jump inside an abandoned tank and continue on your journey. Your trek next takes you across burning sands and over a river. Finally, you must cross a dangerous obstacle course, jump out of your tank and toss a hand grenade at the enemy fort. Sound exciting? Well, it's not.

Even with numerous obstacles and a scrolling path with decent graphics, there's nothing of interest here. The sound effects are all routine, and worst of all, so is the play action. Young children may enjoy *Front Line*, but other family members may quickly become bored.

Coleco, for ColecoVision



TUNNEL RUNNER B+

Ever wonder what it would be like to be trapped in a maze? You run from room to room, frantically turning corners, constantly increasing your speed as you search for the key that will open one of the escape doors. But what's up ahead? You've run into one of the dastardly maze Zots. Instead of succeeding, you've ended up as his dinner. But don't panic. You still have another chance. Great, you made it to the door. At last you're home free, right? Nope, you're simply in a more difficult maze!

Tunnel Runner is a "RAM plus" contest. Thanks to expanded memory, there are superior graphics and a second contest which features randomly generated mazes. These characteristics help to raise this game above the rest of the pack. The mazes are very colorful, and one push of the joystick button gives you a view of all of the action. Thanks to the randomly generated mazes, you can get better at this game, but you'll never completely master it. *Tunnel Runner* is similar to Starpath's *Escape From the Mindmaster*, but you don't need a Supercharger or ColecoVision to play it. But this game isn't for everyone. If you're more into games of strategy than shoot-'em-ups, *Tunnel Runner* is for you.

CBS, for Atari VCS

SWAP SHOP

Do you have some old games or equipment that you're tired of? Do you want to sell them or trade them for something else? The Swap Shop is a free (no catches, no strings attached, no ripoffs) service to our readers.

Atari 400, $90. In excellent condition, warranty still in effect. Accessories include: 410 program recorder, $60 (with BASIC Language cartridge); 2 Atari joysticks, $10; paddle controllers, $5 (needed for **Downhill Racer**). Games for sale: **Downhill** on cassette, $15; **Canyon Climber** (cassette), $15; and **Centipede** for $20. Atari Reference Manual, $5; BASIC Programming Manual, $5. Write to: Ryan Potter, 3306 80th, Lubbock, TX 79423.

For Sale: VIC-20, C2N Datasette, and **Alien** cartridge. Like new, must sell for $150. Craig Walker, 22 Thorndike St., Beverly, MA 01915.

Atari owners! For trade, not sale, are these carts: **Jungle Hunt, Dark Cavern, Surround, E.T., Raiders of the Lost Ark, Yar's Revenge, Defender, Asteroids, Space Invaders, Star Raiders, Missile Command, Airlock, Encounter at L-5, Riddle of the Sphinx, Atlantis, Spiderman.** I want new games for the 2600. Make offers. Matt Sanborn, 3 Orchard Hill Cir., Bedford, NH 03102.

Atari 400/800/1200 computer owners! I'll trade you my 410 cassette recorder with **Shamus** and four other cassette games for your 1010 cassette recorder. Also, I will trade my **Donkey Kong** for your **Star Warrior** and **Rescue at Rigel.** Write to: Brian Bentiez, 23 Horton Drive, Huntington Station, NY 11746.

Complete Fairchild Channel F video game system including 15 cartridges, best offer accepted. Will sell console and game cartridges separately. Also have many new Atari 2600 carts for sale. Let me know what you want and I'll give you a price. Write to Rich Howes, POB 88, Elgin, MN 55932.

For sale—VIC-20 with these cartridges: **Shamus, Protector, Choplifter, Serpentine, Flight Simulator, Sargon Chess, Raid on Ft. Knox, Pinball, Draw Poker, Gold Fever, Mission Impossible, Voodoo Castle, The Count** and **Gorf.** The whole package for $200. Call Bob at (212) 695-0681 between 10 a.m. and 3 p.m.

Atari owners! Anyone selling **Night Drivers, Lock 'n' Chase, Pitfall, Frogger, Enduro, Super Breakout, Breakout** and **Atlantis?** I'll make you an offer and I'm also selling **Air/Sea Battle** and **Human Cannonball.** Look new, used few times. $8 each for these carts. Kenneth P. Coles, 4330 Woodbridge Ave., Roanoke, VA 24017.

Wanted: used ROM carts for VIC-20. Will pay $3-$12 for any kind. Call or mail name and $1 for postage and packing to mail cartridge. Bruce Washington, 260 65th St. 14-J, Brooklyn, NY 11220.

I have an extra cassette cable for the TI 99/4A computer that I'll sell for $10. Never been used, it's in the original package. Robyn Finkelstein, 36 Independence Drive, East Brunswick, NJ 08816.

Alert, Alert! All VIC-20 owners! Have **Jupiter Lander** and **Super Alien** for $15 apiece. Buck Pelkey and Jeremy Howe, POB 113 #118, Ruidoso, NM 88345.

I have a brand-new Intellivision game system to sell, with **Star Strike** and **Soccer.** $125. For details, contact: Will Villasuso, 6N 235 Circle Dr., Medina, IL 60157.

Atari computer owners: For $10, I will send 5 fantastic arcade-style games on high-quality cassette. All have beautiful graphics and sound, and require 16K memory. Satisfaction guaranteed. Send $10 to Kevin Van Norman, POB 218, Bude, MS 39630.

Wanted: **Fantastic Voyage** for Atari VCS. Will make fair trade, one or two carts. If interested, write to: Dale Hammond, 408 Shoreland Rd., Rockland, IL 61111. I WANT THIS CARTRIDGE!

If you're interested in selling or swapping any Atari 5200 cartridges, please contact me. Jay Miller, Rte. 1 Box 536, Heiskell, TN 37754.

Atari 400/800 owners with disk drives: are you interested in trading games? I will trade copied games on a one-for-one basis. Mail a letter for more info. Mark Tresnicky, 1324 Mosswood, Irving, TX 75061.

Wanted: Atari's 2600 **Starship** and Data Age's **Warplock, Airlock** and **Encounter at L-5.** I'll pay top price for these games! And will pay $25-$30 for these Starpath Supercharger games: **Sweat, Decathlon Game, Sword of Saros** and **Survival Run.** And am authorized to offer top price for these Activision games: **Dolphin, Keystone Kapers** and **Starmaster.** For sale: Mattel's **Football II** ($5), **Bambino Boxing** ($15). All like new. Write to: Octavio Rivera, POB 1, St. George Station, Staten Island, NY 10301.

For Sale! VIC-20, **Omega Race** and **Adventureland** carts, Commodore tape recorder, 8K memory expander, **Pipes** cart and **Introduction to BASIC, Part II.** All for only $175. Write to Mike Sack, 5070 Hartland Dr., Flint, MI 48506. Or call 313-736-8122. (Also have over 20 new VCS carts for sale; write for list.)

After you buy a new game, don't throw away the box, send it to me. But I don't offer any money. I'll accept any games from any game computer systems. David Zepeda, 924 E. Winnie Way, Aracdia, CA 91006.

Wanted: any ColecoVision cartridges. Will pay good price. Doug Pyne, 55 Nutmeg La., Madison, CT 06443.

Selling and trading (one for one) VIC-20 programs. Over 500 in stock! For complete price lists, write to Patrick Vick, 2826 Albin, San Antonio, TX 78209.

If you would like to place a free ad in the Swap Shop, send your ad along with your name and address to: Swap Shop, Computer Games, 888 7th Ave., New York, NY 10106. We will print as many ads as fit the page. We accept no responsibility after an ad is published.

CLUE #5: CEYLONIAN JANITOR RINGS

NEXT WAVE

GOLDEN JOYSTICK AWARDS!

We honor the best computer, video and arcade games of the last 12 months. Categories include: Arcade Adaptation, Action, Adventure, Educational, Most Innovative and many more.

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The four minute mile and the 20-foot pole vault are kid stuff compared with the first billion point game. Well, the barrier has just been crossed, and here's how it was done.

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Musical instruments may become obsolete—now we can use our computer keyboards like piano keyboards. Find out which music programs will do what.

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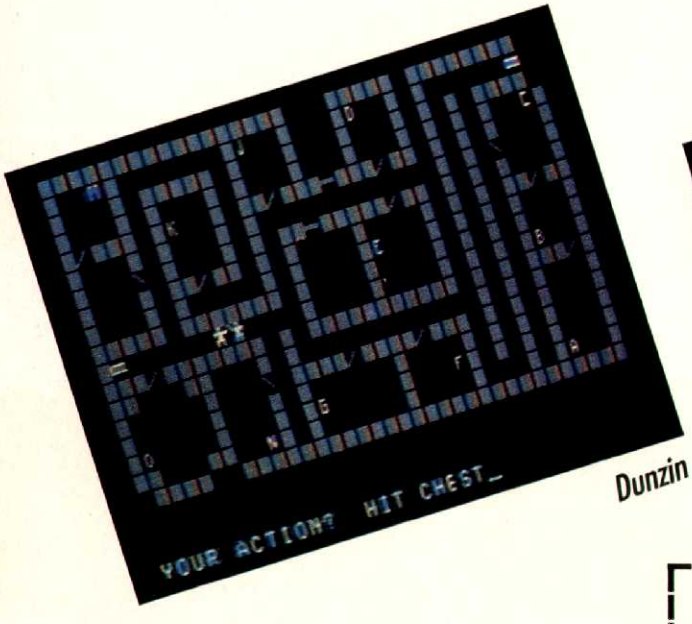
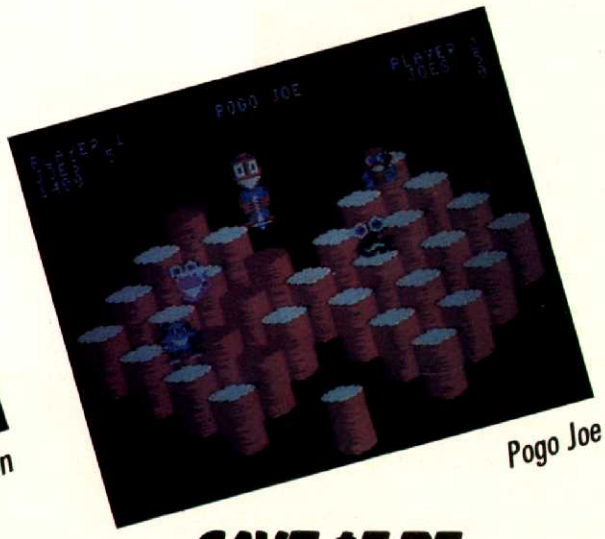


Dunzin



Pogo Joe

Pogo Joe wants you! We will randomly select 20 of this issue's new subscribers and send them one of Screenplay's great new games. Subscribe today! You have just as good a chance of winning as the next guy!

Offer void where prohibited by law. Games include *Pogo Joe*, *Dunzin*, *The Wylde*, *Kaiv*, and *Asylum*. Entries must be received by June 16th, etc. etc.

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CONVERSION CAPSULES

HIT GAMES IN NEW FORMATS

THE SANDS OF EGYPT

(Apple) This animated adventure shows off brilliant hi-res graphics on a unique split-screen display as you locate and explore an ancient pyramid. (Datasoft)

FLIGHT SIMULATOR II

(Apple) All the controls of a real Piper Cherokee are included in this authentic simulation that includes a WWI aerial combat game. This is the second-generation version, which offers color, over 70 airports and adjustable weather conditions. Available soon for Atari and C-64. (Sublogic)

GRIDRUNNER

(Atari) One of the fastest shoot-'em-ups ever, but the graphics aren't as sharp as on the C-64 original. Also, the grid flashes on and off several times when you start each round, which grows irritating. (HES)

BATTLEZONE

(5200) To *Battlezone*'s credit, it is not the run of the mill shoot-out. The graphics are good, and the concept is interesting. But if you're not into this type of game, you'll probably be bored. (Atari)

PAC-MAN

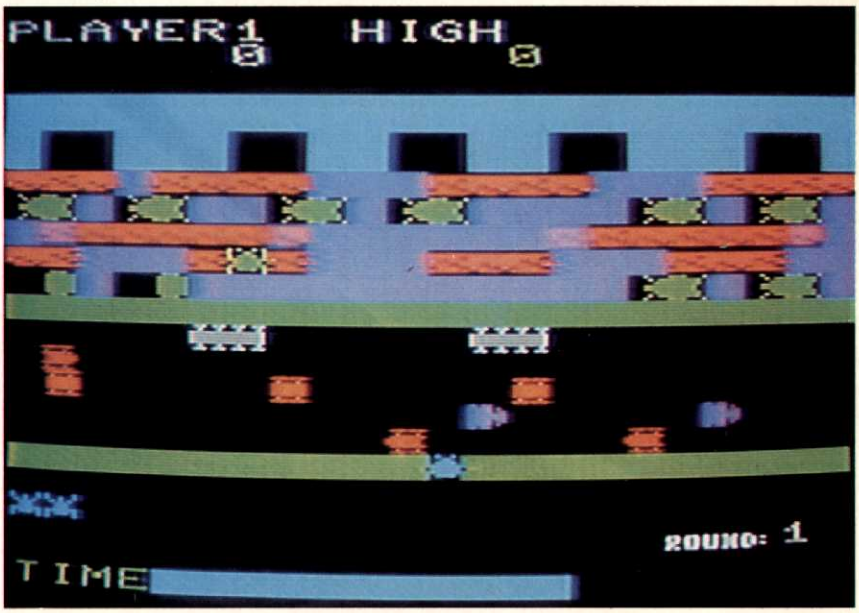
(Apple) The game fills only half the screen and the sound is downright pathetic, but it's still the greatest game of all time, and just as addicting as ever. (Atarisoft)

DEFENDER

(Apple) It moves much slower than the arcade game and home versions. You can't respond quickly. It sounds like someone gargling. Still, it's better than most action Apple games. (Atarisoft)

CONGO BONGO

(Atari , 5200, C-64) Sound, graphics and play value add up to perhaps the worst game we've ever seen. It's cartridges like this that give video games a bad name. (Sega)



FROGGER (VIC-20)

Q*BERT

(C-64) Spectacular. Except for the lack of Q*Bert's "speech," this cart almost totally duplicates the arcade game. An absolutely terrific translation. (Parker)

BANDITS

(VIC) Surprisingly, this bottom-moving shoot-'em-up looks and sounds as good as the Atari original. Not as tough on the first three waves, but plenty of fun. (Sirius)

FINAL ORBIT

(VIC) Visually, this first person shoot-'em-up is as good as ever. And you get *Bumper Bash*, a pinball game, on the same cart. (Sirius)

STAR TREK

(C-64) Much more graphically detailed than the VCS version. Gameplay is similar, and it's excellent. (Sega)

PINBALL CONSTRUCTION SET

(C-64) This enhanced version offers a wider range of colors and more control over how you apply them to your creations, via the multi-color mode of the 64. (Electronic Arts)

ARCHON

(C-64, Apple) Both are excellent translations of a combination strategy and action scenario that's one of the few to put two players on-screen simultaneously to fight it out. (Electronic Arts)

M.U.L.E.

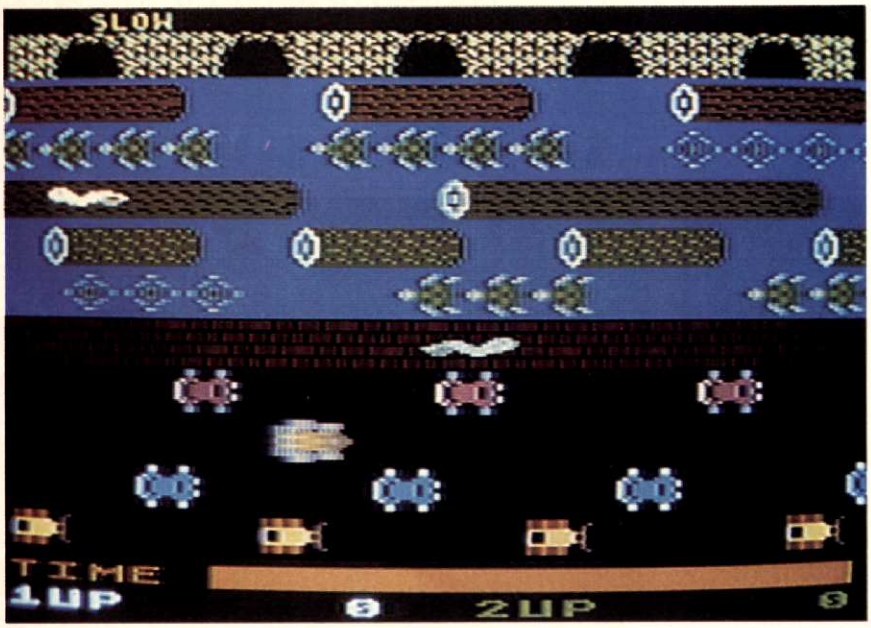
(C-64) An intriguing and satisfying board-strategy game that's like *Monopoly* on another planet, but better. (Electronic Arts)

WORMS

(C-64) Program worms on your computer? Yes, it's a strange game that you ought to play before you buy. (Electronic Arts)

HARD HAT MACK

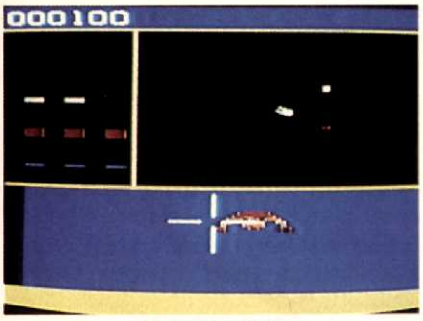
(Atari, C-64) A variety of well-animated graphics make this one of the best ladder games around. (Electronic Arts)



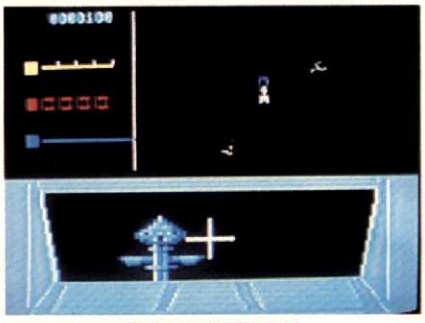
FROGGER (Atari computer)

*Q*BERT (VCS)*

*Q*BERT (C-64)*



STAR TREK (VCS)



STAR TREK (C-64)

AXIS ASSASSIN

(Atari,C-64) Here's a shoot-'em-up that's a lot like *Tempest*. It's you versus the spider on 100 different webs. (Electronic Arts)

SHAMUS

(TI 99/4A) The original (Atari) *Shamus* won our Golden Joystick award as best computer game of last year. It's a fast-paced shoot-'em-up-in-a-maze, and this one looks OK, even though it isn't quite as challenging. (Atarisoft)

PAC-MAN

(TI 99/4A) Better graphics than the Apple version. Everything moves very slowly, and when you speed it all up, the ghosts only stay blue for a second or two. Horizontal screen. Looks better than it plays, but sound effects are better than the Apple version. (Atarisoft)

DONKEY KONG

(TI 99/4A) Excellent translation of the classic climbing game. Mario moves a bit swifter than in the Coleco version, and climbs the ladders easier. Four screens. (Atarisoft)

POPEYE

(TI 99/4A) The graphics are a bit blockier than the ColecoVision and Atari computer version, but better than the VCS. The play action is all here, and it's great fun. (Parker)

PITSTOP

(ColecoVision) Just as good as the Commodore 64/Atari version, and even better with the driving module. Action in the pits is a little easier. (Epyx)

FROGGER

(VIC, C-64,ColecoVision) Crude graphics—the frog looks like a spider—and crippled sound effects make this a real loser for VIC owners. But the Coleco version's wonderful, and the C-64 translation superlative. Even so, it's an incredibly boring game—why are people still buying it? (Parker)

KABOOM

(5200) Even a simple concept can provide hours of fun. This adaptation for the 5200 is as much fun as the original, but don't expect anything novel here. (Activision)

BUCK ROGERS

(5200) If you're into space shoot-outs with round after round of attackers, then this one's for you. The graphics and sound effects are nothing to write home about. This one looks more like a VCS game. (Sega)

POPEYE

(5200) The graphics and sound effects are far superior to those of the VCS, but still not up to the level of the arcade classic. Most important though, the play action is outstanding. (Parker Brothers)

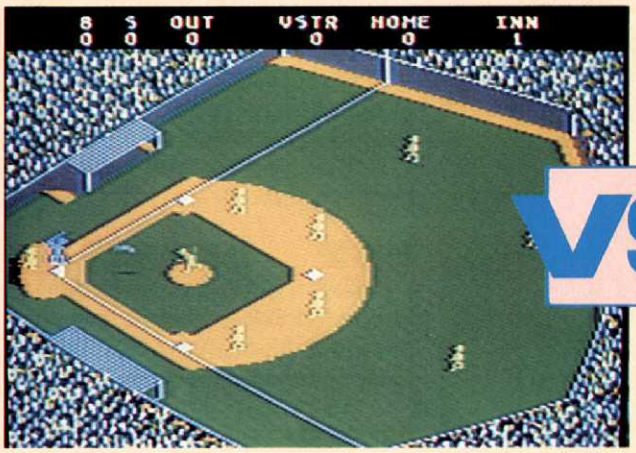
MINER 2049ER VOLUME II

(2600) An excellent continuation of the Bounty Bob saga. Here are three more screens taken from the original computer program with all of the excitement and charm of it's predecessor. (Tigervision)

ONE ON ONE

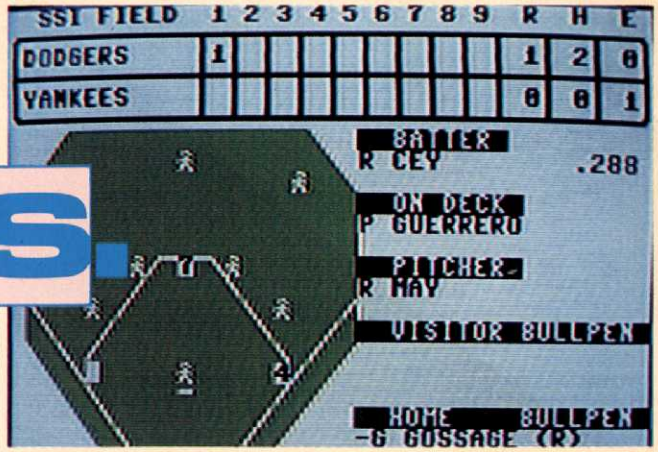
STAR LEAGUE BASEBALL

(Gamestar, for Atari)



COMPUTER BASEBALL

(SSI, for Atari)



VS.

The principle interaction in any baseball game occurs between the pitcher and the batter, and such is the basis for *Star League Baseball*. As in real life, the pitcher has more options. The batter has but three choices – bunt, hold or swing. The pitcher, meanwhile, has eight different tosses in his arsenal. Well, in theory he does. In execution, though, I was hard pressed to find the difference between, say, a medium and a slow screwball. Even so, it's a realistic mix; and you can choose from three pitchers, each with his own specialties.

Both batting and pitching commands are entered via the joystick, a good choice of control for some reasons, a poor selection for others. In a two-player situation both the offense and the defense can make their moves covertly. If control was governed by the keyboard, the batter would almost always know which pitch to expect. But since most Atari-compatible joysticks are finicky about recognizing diagonals, the pitcher may find himself more often than not at the mercy of his joystick. Thus, an intended slider becomes a fastball or, worse yet, an intentional ball.

Fielding and running are also governed by the joystick and, like pitching and batting, tend to be unexacting exercises. Base-running is the least authentic aspect. Only the lead runner is under the player's direct control at any one moment. Trailing runners will move only if forced. If the lead runner scores or is tagged out, control automatically shifts to the next lead runner.

Only the player nearest the hit ball's path is eligible to field the ball. The activated fielder can be moved in any of the eight joystick directions. But due to the game's bent graphic perspective, it is difficult to judge the trajectory of a fly ball. The shadow it throws on the ground helps, though.

Throwing is the most sensible procedure in this game. You have but four choices—home, first, second or third. The corresponding positions on the joystick are set up in the same pattern as they are on the screen.

Star League Baseball has oversimplified many aspects of real baseball in order to allow you to participate. *Computer Baseball* has turned the game into a very sophisticated experiment in probability and statistics. In this simulation you're more of a manager than a player.

There really isn't much to do here—just analyze, analyze some more and wonder "What if?" Defensively, you can shift infield and outfield positions, pressure base runners and juggle your pitching staff. When at bat you have three options—hit, hit and run, or bunt. Base runners can be coached to lead or hold, and pinch hitters and runners can be brought in.

While physical participation is near nil, your managerial abilities will be tested to the full. Everything that happens here is governed by the laws of probability and statistics. Your input has a direct, though coldly mathematical, effect on the game's outcome.

Twenty-six major-league teams, opponents in 13 of the classic World Series encounters, are provided on the game disk. A disk containing all the major-league teams from the most recent season is available by mail from SSI. The supplied match-ups are a baseball fanatic's dream—the 1912 series (Boston vs. New York) and the 1969 Mets-Orioles encounter to name a few. To satisfy your wildest curiosities, team data can be examined and altered. Another option allows you to enter the status of any team, past, present or purely concocted.

Computer Baseball is recommended for the true fan—the nut who could tell you not only Babe Ruth's batting average for any given year, but his shoe size, birthday and favorite flavor of ice cream as well. Action-oriented players who would rather be a Pete Rose than an Earl Weaver will definitely prefer *Star League Baseball*.

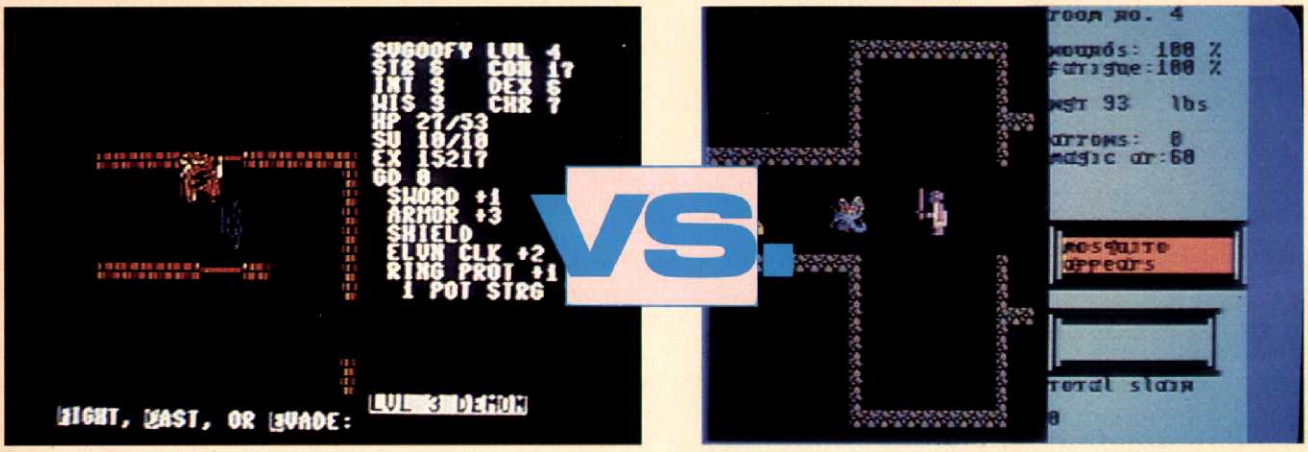
ONE ON ONE

TELENGARD

(Avalon Hill, for Apple, Atari, C-64)

TEMPLE OF APSHAI

(Epyx, for Apple, Atari, C-64)



Both of these games are a lot like life. You start out weak, you fight, you win and lose. With the passage of time you become stronger, smarter and better able to deal with what lies ahead. Rarely is there an obvious purpose for your journey other than adventuring for its own sake. The attraction here is not the triumph, but the struggle.

If Vince Lombardi were alive today, he probably wouldn't be playing games like *Telengard* and *Temple of Apshai*. Winning was everything to Vince, and winning has little or nothing to do with what goes on here. The idea in both games is simply to do your best and hope that by quest's end, you have a few bucks in the bank to show for your efforts.

These bucks come in the form of treasures—jewels, swords and other magical artifacts. Some of these treasures, particularly those in *Apshai*, are things only your grandmother could love. I mean, c'mon—silver candelabras and trays?

Anyway, step one in both contests is the creation of a character, your alter ego for the quest. This process of birth is a simple affair. Just answer the prompts as they appear. The computer will display a listing of six character attributes and a number alongside each within the range of three to 18. An example—if in *Telengard* a value of 15 is assigned to the character attribute called Dexterity, he will be more successful at evasion (i.e., running away from an undesirable encounter) than a character with, say, a dexterity rating of 12. All attribute values are randomly determined. In both games these assigned figures will serve as your strategic guidelines.

Both games are played in "real time" —that is, you are not afforded the luxury of dwelling over your next move as you are in a game of chess. In *Telengard* you are given a scant five seconds to act when called upon to do so. Hesitate and the computer will decide for you. In *Apshai* quickness counts, too, but you and only you can spur your adventurer into action. Beginners, then, might find *Apshai* a bit more forgiving.

In both contests, movement and combat account for most of the action. Basically, all you do is tromp from room to room and fight whatever beast (or beasts) you find between yourself and the treasure. The weapons are traditional—swords and bows—and the tactics, to the point. In *Telengard* you are further equipped with a library of spells that, when cast, have varying effects on the 20 different types of monsters you'll face in this dungeon.

Once a battle option is selected, your character is committed, and control of him is temporarily relinquished. At this point the computer takes over and conducts the battle. The outcome, largely based on the relative strength of the monster and your own attribute values, is then flashed on the screen.

Both games can be played for indefinite periods of time, but of the two, *Apshai* is the one you could forseeably complete. The temple consists of four levels, each containing between 55 and 60 rooms. *Telengard*, on the other hand, is somewhat of a bottomless pit. No definite end point is documented in the instruction booklet. *Apshai*, I believe, could very well have been programmed to offer more levels. Wisely, though, they opted for a finite number of rooms, all of which are different. (*Apshai* can be expanded with *The Curse of Ra* and *Upper Reaches of Apshai*.) In the more advanced levels of *Telengrad*, the scenery begins to look familiar.

Apshai and *Telengard* are near equals. If long-term playability is your chief concern, either game will do. Sound plays almost no role in *Telengard*, while *Apshai*'s full of creaking doors, wailing monsters, footsteps and slashing swords. If you like your games with better graphics, then go for *Apshai*.

By Michael Blanchet

SREWSNA DNES

SERIOUS SOFTWARE

NEW APPLICATIONS FOR HOME COMPUTERS

TAKE YOUR COMPUTER TO MCDONALD'S

By Shay Addams

Stuff your face the high-tech way.

Fast-Food Microguide

Nothing's as American as fast food—but is it good for you? This all-text program takes you to MacDonald's, Taco Bell or any of eight other fast-food chains and then shows you the current menu. Eat all you want at a particular place by typing in the numbers of the chosen items, then read an instantaneous breakdown of the meal's nutritional value. Factors considered include the amount of calories, protein, calcium, sodium, and vitamins A, B and C. (The nutritional data comes from independent laboratory analysis.) It displays the percentage of calories that came from fat, and reminds you that it shouldn't exceed 30%.

You'll also learn how much of the Recommended Dietary Allowance of each element is provided; meals are rated "good" if they furnish at least 25% of the RDA for vitamins. Even more helpful is advice on which food sources can provide vitamins that are missing in a deficient meal. Data of the disk will be periodically updated by the manufacturer to reflect menu changes. Not recommended for dietary or medical purposes, *Fast Food* is still a good way to make up your mind which kind of junk food to eat for dinner. From the Learning Seed, 21250 N. Andover, Kildeer, IL 60047.

The Learning Seed, for Apple

Atariwriter

Atari's gone out of their way to make word processing as easy as possible. Entering and editing text is done on a "live" screen (you don't have to change modes to insert or add text). The only minor flaw here is that you can't strikeover words: they must be deleted and the new text added. Two-stroke commands control cursor movement, Search/Search and Replace, Begin Paragraph and other often-used commands.

Standard block manipulations such as Move, Duplicate and Delete are conveniently implemented, and it's easy to mark off the blocks with Control-Xs. Format commands can be embedded throughout a file, and you may save files to disk or cassette. *AtariWriter* is set up to work with four Atari printers, and others may be used with the proper inferface or driver. With a dot matrix machine, you can mix and match from three print styles, including condensed and proportional. You can also print to screen for a preview. *Atariwriter* will also display a list of all the files on a disk. Chainfiling allows you to print documents too long to fit into RAM as a single file. In addition to centering, super/subscripts, headers, footers and auto-page numbering, *AtariWriter* has two unusual features: double-column printing and source code capability (for writing programs).

It's an excellent word processor that can meet the needs of most school and home users, and the thorough and concise documentation makes it good for first-timers. Best of all, it's on a cartridge, so you don't have to wait for it to load.

Atari, for all Atari computers

3G Horse Race Handicapper

Now you may be able to make enough money at the track to pay for your next few games—maybe. First you have to study the *Daily Racing Form*, picking out various factors on each horse in the race you're considering betting on. (It can have no more than 14 entries.) They include things such as how recently each horse raced and if they finished in the money (first, second or third). Factors like these are considered vital by most handicapping systems.

Then you type in the information, and in less than ten seconds you'll see a list of all the horses and the odds against each winning the race. Of course, your application of these projections is the key to winning or losing. The documentation offers some useful tips, basically advising that you don't bet a horse to win unless the track is paying better odds on a particular horse than the program's predicted odds against the same nag finishing first. This could make money in the long run, but you've got to do an awful lot of homework with the *Racing Form*.

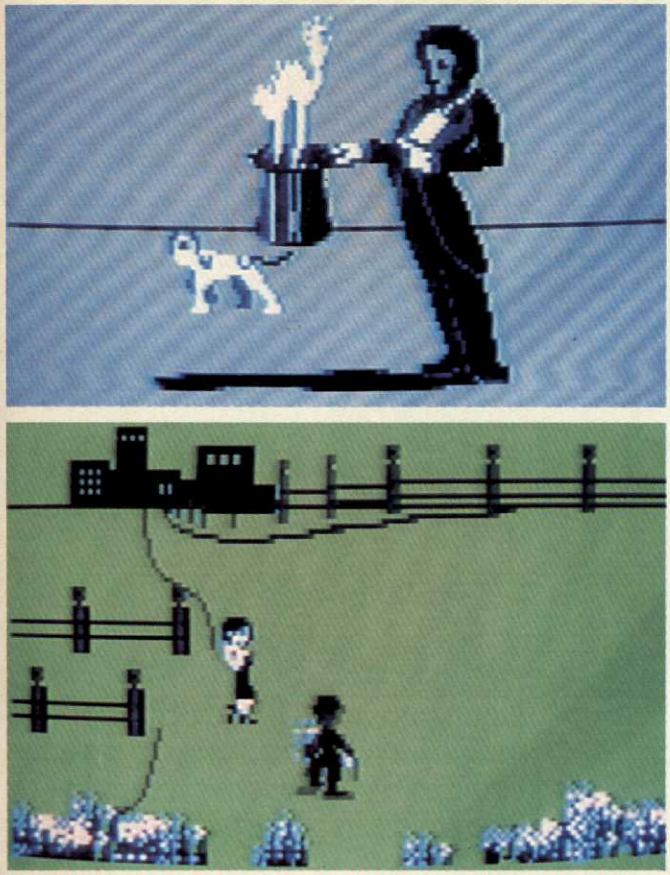
3G Software, for Atari, Apple, C-64, VIC-20 and TRS-80

Preparing for the SAT

This program won't take the Scholastic Aptitude Test for you, but it will help you prepare for that dreaded "rite of passage" required of all college-bound high-school seniors. It consists of five disks dedicated to practice drills on sections of the SAT; these include Vocabulary Builder 1 and 2, Analogies, Number Series and Comparative Analysis. A sixth disk deals with test-taking in general. After completing the 40-odd questions in each drill, you'll learn the percentage of right and wrong answers.

Beyond practice sessions, the program teaches specific strategies for attaining high scores on the SAT, things such as time management and organized reading. An introductory audio cassette explains how to get the most out of the system, and two thorough manuals make this a comprehensive and effective learning tool for anyone who wants to ensure their chances.

Program Design, Inc, for Apple



The cel-type animation of **Dragon's Lair** *is used in* **Moviemaker.**

Moviemaker

Most "art" software draws the line at producing animated cartoons—but not *Moviemaker*. This program actually makes the process easy (once you've mastered the 88-page manual). First you use the joystick to draw people, cars and various objects. Then color them in, add a background and press a few keys to see the characters come to life.

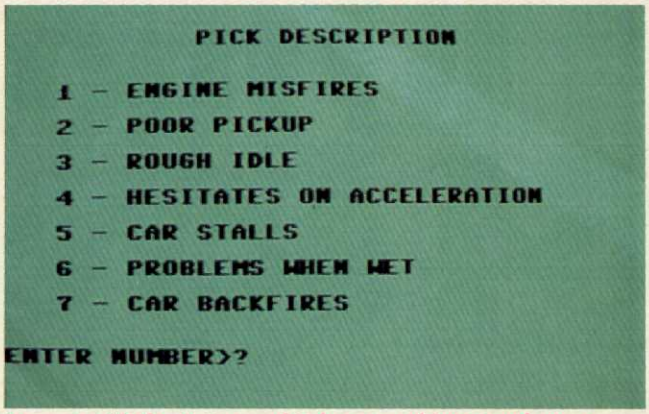
Real-time cel-type animation, the kind employed by Don Bluth in *Dragon's Lair*, allows you to produce "movies" of up to 300 frames in length (about one and a half minutes). Four soundtracks enable you to blend in musical notes and sound effects included on the program disk. Titles and text (for credits!) may be added to your movies, too. Atari, CBS Software and other game companies use *Moviemaker* as a "productivity tool" for previewing game designs, but you may find to more fun to play with.

Reston Publishing, for Atari, Apple, IBM PC and C-64

Computer Mechanic

Tell Mr. Goodwrench to go tighten a few lug nuts—now you can diagnose your auto's ills with the troubleshooting facilities of "Mr. Good-disk." This is initiated by answering the first question: will the car start, or is it running roughly? Then a menu of symptoms is displayed, from which you select the one that's most appropriate. A series of questions will be asked, and your replies determine the advice offered by the program. Another section tells how to do the repairs yourself.

You can also keep records (on disk or cassette) on up to 100 vehicles, and you can update



Computer Mechanic *is completely menu-driven, and some sections feature hi-res graphics.*

information on the latest brake jobs, tire rotation, oil changes and other items. The "when to check" section tells you how often to do so, and simple, color-coded graphics illustrate the "how to check" part of the program. The only drawback is that you must consult the "when to check" section, then retrieve a file to find out if that car needs servicing. *Computer Mechanic* would be much more effective if it allowed you to key in today's date, then compared it with the data on file and automatically informed you which areas are due for maintenance or check-ups. Even so, it's a practical home program that will benefit most car and computer users.

Softsync, for Adam, C-64 and Timex 2068

Super-Text Professional

This easy-to-use word processor offers an 80-column display without expensive hardware, and that's but one of its many advanced features. You also get on-screen formatting, so centered lines and other special effects show up on the monitor exactly as they will on paper.

Three modes of operation are available: Add, for inserting or creating text; Change, for writing over existing words; and Cursor, for moving quickly around a document and for handling block operations like "Find and Replace." In cursor mode, you can flip pages forwards or backwards by pressing a single key. Four "Help" screens make mastering the fine points less frustrating than with some word processors offering similarly sophisticated features.

A single key can be redefined to represent and automatically type in any phrase (no more than 30 characters) you often repeat in your work. When the directory is consulted, you may load or save a file by entering the number beside its name instead of typing in the entire name. The remarkable Split-Screen option is accessed by pressing one key, and *Super-Text* will rapidly count every occurence of a specific word or the number of words in the entire document.

"But will it work with *my* printer?" is the universal question. You should have no problems there, because nine user-definable control keys can be harnessed to make your printer do underlining, shadow printing or anything else it's already capable of doing. The documentation in the 120-page manual is explicit, and an illustrated reference card comes in handy. This disk-based word processor is one of the best ever.

Muse Software, for Apple and C-64

Jump on 10 monsters, 64 screens and $10,000

with Pogo Joe.™

A Mutated Wonderwhisk whisks by. The Spinning Top almost topples him!

Close. But Pogo Joe bounces back. Bouncing from cylinder to cylinder, screen to screen, Pogo Joe racks up point after point.

You guide him from cylinder to cylinder, changing the color on top of each. Change the top of each cylinder on a screen, then you're on to the next.

The more screens you complete, the nastier the monsters you face, and the faster they attack.

Press the fire button! Jump two cylinders to safety. Hop into a transport tube, and then whoosh! Pogo Joe appears across the screen. Jump on an escaping monster. Blam! It's gone in a flash! Only to reappear out of thin air.

Keep bouncing Joe to original music on realistic 3-dimensional cylinders. All the characters in this rollicking game are also 3-dimensional and fully animated. The graphics almost jump off the screen, leaving the arcades behind.

What's ahead with *Pogo Joe*™ is $10,000. Simply tell us what magic word appears after *Pogo Joe's* tenth screen. If your name is drawn from among the correct answers you'll win $10,000!

No purchase is necessary. You'll find entry forms at any store that sells Screenplay™ games.

But if you don't win you can't lose. *Pogo Joe*™ is so much fun you'll jump for joy no matter what.

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Pogo Joe in 48-64K on the Atari and Commodore 64. See your local software dealer.

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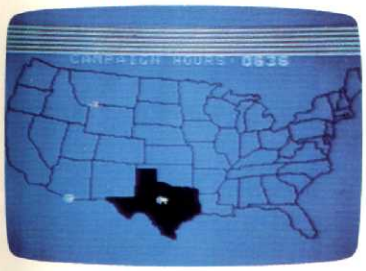

CAMPAIGN '84™

Combine skill and knowledge with your campaign strategy. Select platform issues, raise funds, avoid bad press. Travel from state to state increasing your popularity. Just maybe, come election day, you'll have enough electoral votes to hear "Hail To The Chief".

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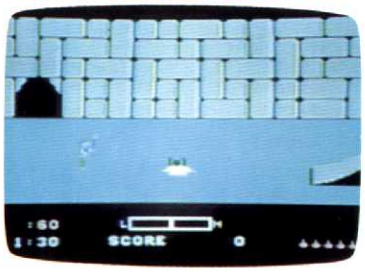
GUST BUSTER™

Navigate through videogames' most exciting Amusement Park, by inflating and deflating your balloons. Different altitudes bring changes in wind gusts and direction. Avoid animals, fountains, airplanes, fireworks and other obstacles while attempting landing in crowds to sell your balloons.

Available for Colecovision™, Adam™, and Commodore 64™ home computers.

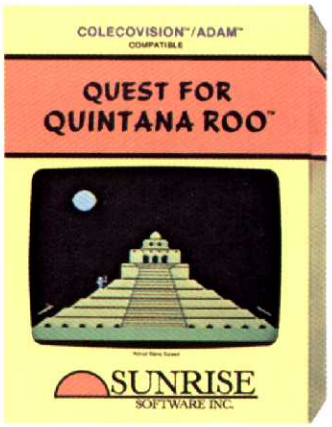
AN ARCHEOLOGIST!



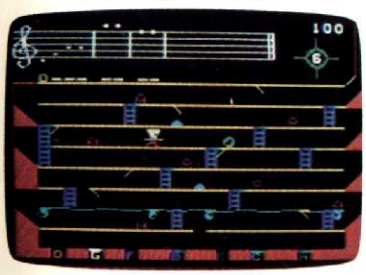
QUEST FOR QUINTANA ROO™

Help Yucatan Sam explore dozens of terror-filled chambers that create The Mystical Temple of the Mayan God Quintana Roo. Supplies are limited, so use them with caution. Time in the temple is a matter of life or death, but risk is part of solving this Mayan Mystery.

Available for Colecovision™, Adam™, and Commodore 64™ home computers.



A MAESTRO!



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mountain king™

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