Atari 1200 Workout • Intro To Assembler $2.95

ELECTRONIC FUN

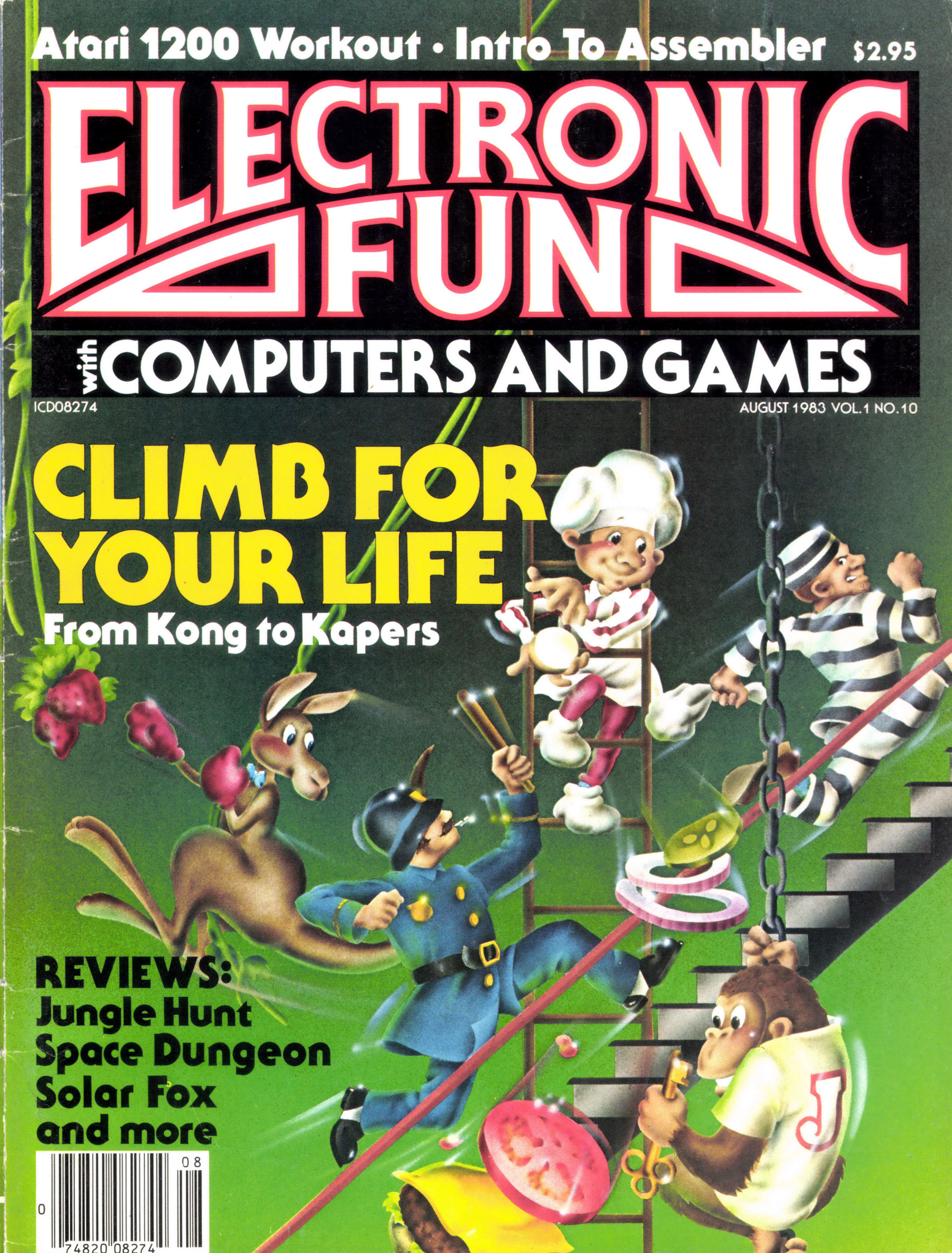
with COMPUTERS AND GAMES

ICD08274

AUGUST 1983 VOL.1 NO.10

CLIMB FOR YOUR LIFE

From Kong to Kapers



REVIEWS:
Jungle Hunt
Space Dungeon
Solar Fox
and more

0 74820 08274 08

Look what for your VIC 20.

Fast action. Complex strategies. Interesting characters. Superior sound effects. Multiple levels of play.

These are the things you want from your VIC 20™

They're also the things you get from Tronix. From the people who brought you *Swarm!*, *Sidewinder* and *Galactic Blitz*.

And now, there's more.

Now Tronix brings you the same rewarding rapid-fire excitement in three brand-new game cartridges.

Each one is something different. Something new. But they all have one thing in common.

They're all designed to bring out the best in your VIC 20.

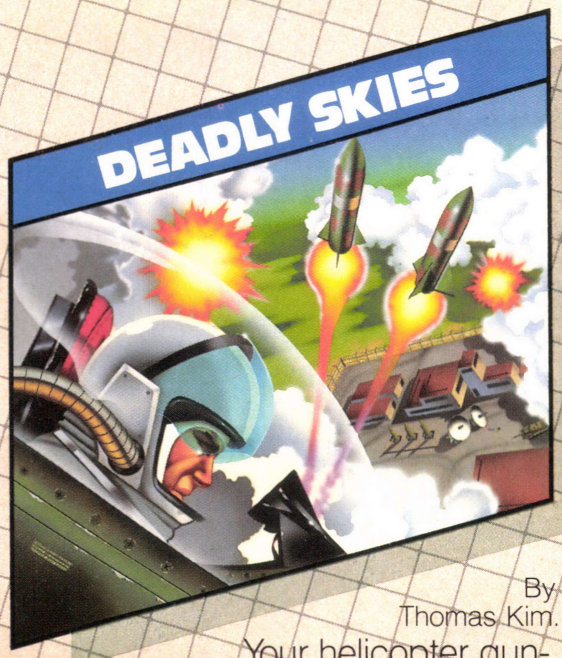
You shouldn't settle for anything less.



By Jimmy Huey.

In a predatory world of killer worms, dragons, stalkers, pods and fly traps, the scorpion prowls the maze in search of sustenance. Frogs and their eggs mean survival to the scorpion. But they can also mean instant death! (Suggested retail $39.95)

we have in store



By Thomas Kim.

Your helicopter gunship hovers over the enemy's military bases and missile emplacements. Your mission is to destroy them. But as the sky fills with smart bombs and anti-aircraft fire, there's less and less room for a wrong move! (Suggested retail $39.95)



By Corey Ostman.

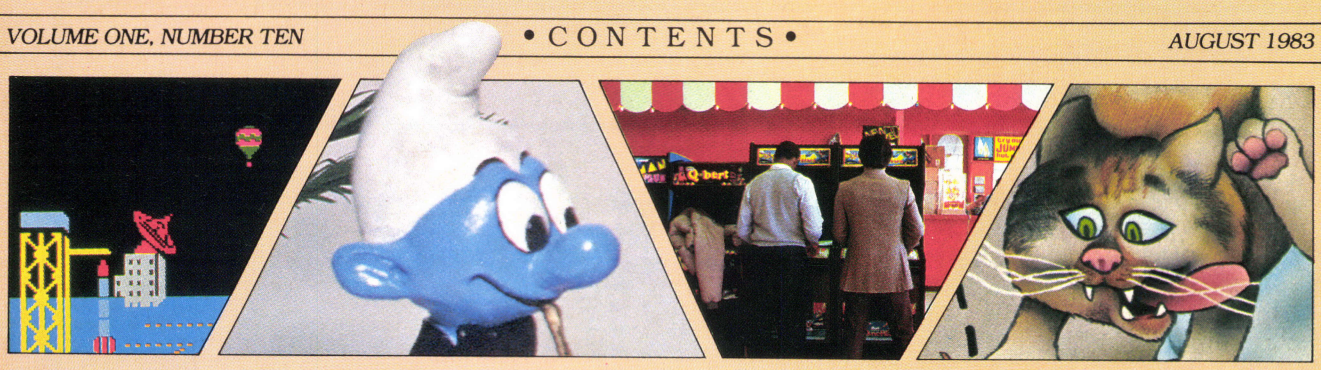
Deep in the earth, a fortune awaits. But the dark passageways are filled with peril as well as profit. Runaway boxcars. Crashing boulders. A claim jumper with murder in his eyes. Be careful. But be quick—oxygen is in short supply! (Suggested retail $39.95)

TRONIX™

8295 South La Cienega Blvd., Inglewood, CA 90301

Look for Tronix games in your nearest store. If you can't find them there, write to us.

VIC 20™ is a trademark of Commodore Electronics Ltd.



ELECTRONIC FUN with COMPUTERS GAMES

Special Reports

FOR MEMBERS ONLY *By Josh Martin* Like the exclusive Harvard Club and Skull and Bones Society, members of computer clubs have secrets and privileges that outsiders don't. And, best of all, you don't have to swallow goldfish to join **22**

THE UNKNOWN ARCADER: THE ARCADES OF ATLANTIC CITY *By "UA"* Does the gambling capital of the Eastern Seaboard have arcades that feature Frank Sinatra? Find out in the first of a new series **26**

HALL OF FUN AWARDS PART II In which you get to vote on the best computer games of this year **33**

ROLL IT OVER, BEETHOVEN *By George Kopp* Video games are hooked on the classics and while the recordings may not be as high-quality as Deutsche Grammophon, you can still come away humming the cartridges **36**

CRACKING THE CODE *By Dan Azulay* Faster than a speeding BASIC, assembler language can make your mild-mannered, meek and slow programs fleet-footed **42**

WE'LL BE RIGHT BACK *By Frank Moldstad* A surprising number of TV shows are being brought to us by Atari these days, but how do they make those great game commercials? We'll find out after a word from our sponsor **46**

APPLE BUYER'S GUIDE A comprehensive listing of all the companies making juicy games for Apple computers **82**

Regular Features

PHIL WISWELL'S GAMEMAKERS: THE DEMON DESIGNER EF talks to Rob Fulop, the man who hid his initials in *Missile Command* **78**

FIRST SCREENING: SPIDER Find out how Robert Alonso got the bugs into his VIC-20 program **87**

Equipment Reviews

GAME WORKOUT: CLIMB AND PUNISHMENT *By the EF Staff* Going up? You should be. That's where all the action is. A guide to all the games that take you higher and higher **71**

COMPUTER WORKOUT: ATARI 1200XL *By Jules Gilder* It's not a racing car even though it's got a racy new name and a sleek new design. And, surprisingly enough, it may not win when pitted against the 800 ..... **74**

Game Reviews

HITS & MISSILES Michael Blanchet runs out on a limb with *Jungle Hunt*; George Kopp grinds through the *Pepper II* mill; Noel Steere goes on a *Solar Fox* hunt; Marc Berman goes AWOL over *M*A*S*H*; Michael Brown and Margie Crane take *Tennis* for the 5200 and 2600 to court, plus *Gulper, Miner 2049er, Pieman, Gridrunner* and more computer games. **52**

Departments

Editorial A word from the editors **6**

New Products The latest in equipment **8**

Letters We welcome your feedback **11**

Output/Input Got a question? We've got the answer **12**

EFG Times You read it here first **14**

Screenplays Michael Blanchet's arcade strategy tips **18**

Glitches An irreverent gazette of gaming news **20**

Reader's Tips Your hints for higher scores **68**

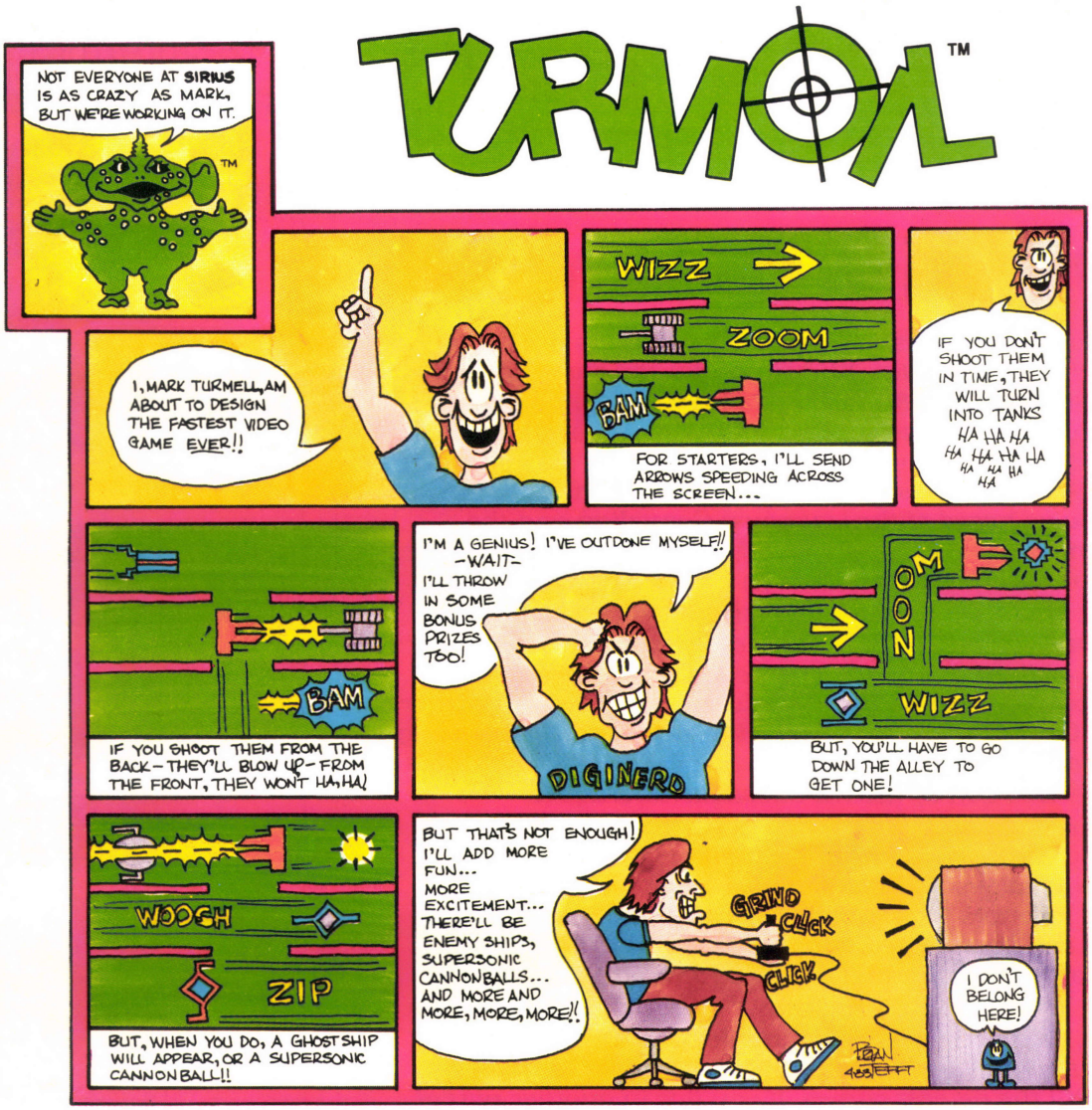
Top Ten The most popular home and arcade games **66**

Top Secret The latest in gaming gossip **98**

Cover Illustration: Jane Beaulieu



TURMOIL™



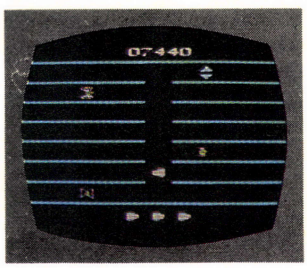
© 1983 Sirius

Sirius™

For more information contact your local Sirius dealer or contact Sirius directly at 10364 Rockingham Drive, Sacramento, CA 95827, (916) 366-1195.

VIC-20 and Commodore 64 versions programmed by Jeremy Jones. Atari 400 and 800 versions programmed by Tom McWilliams. Program and audio visual © 1982 Sirius Software, Inc. Packaging © 1982 Fox Video Games, Inc. All rights reserved.

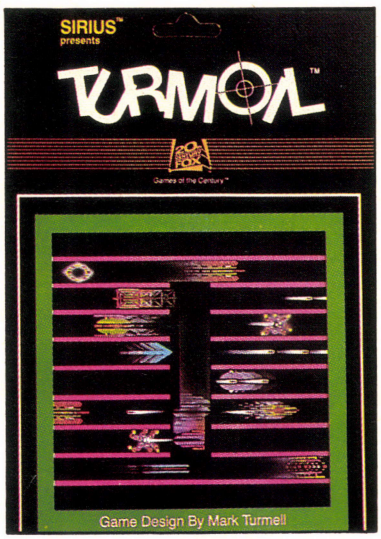
Sirius and Turmoil are trademarks of Sirius Software, Inc. Games of the Century is a trademark of Fox Video Games, Inc. VIC-20 and Commodore 64 are trademarks of Commodore Business Machines, Inc. Atari 400 and 800 are trademarks of Atari, Inc. Sirius is not affiliated with Commodore or Atari.



Atari 400 & 800 Cartridge

VIC-20 Cartridge
Commodore 64 Disk

Game design by Mark Turmell



Editorial

On with the show!

Stop the presses! The Coleco computers are finally here! And, as usual, EF brings you the story first. The long-awaited Adam family includes not only a plug-in module but a freestanding computer as well. See this month's EFG Times *for a preview and be sure to catch the September issue for more information.*

You've heard of the Unknown Comedian and the Unknown Soldier, now meet the Unknown Arcader. We discovered this mad gamer on Times Square in New York and have put him to work travelling around the country in search of the ultimate video arcade. His first stop—Atlantic City, the Las Vegas of the East, where famous boulevards like Boardwalk, Park Place, Ventnor and Community Chest ring with the sounds of wheeling and dealing. Read about the adventures of "UA" in this issue, and don't miss his subsequent forays to Hollywood and points West.

You computer gamers out there will be happy to know that this month you have a chance to vote for your favorites for the Video Game Hall of Fun. *The winners will be inducted at a gala banquet during the festivities surrounding the Electronic Fun Expo at the New York Coliseum, November 3-6. If you're in the New York area you won't want to miss this spectacular event, where you'll get to see all the latest computers and all the newest games. If you live in another part of the country, the Expo is a perfect excuse to make that trip to the Big Apple you've been planning.*

You won't want to miss our first workout of the Atari 1200XL and read the surprising evaluation by computer expert Jules Gilder. On the subject of reviews, take a look at Hits and Missiles—Jungle Hunt, M*A*S*H, Solar Fox *and lots more great games. All in all, enough* Fun *to hold you till our next great issue.* □

The Editors



Fun & Games Publishing Inc. President: Richard Ekstract. Controller: Neil Rose.

Advertising Offices East Coast. Zoe Aquilla, William O'Brien, 350 East 81st St., New York, NY 10028 (212) 734-4440. West Coast: Shelley Funes, 3757 Wilshire Blvd., Suite 202, Los Angeles, CA 90010. (213) 380-0996.

Electronic Fun with Computers and Games is published monthly by Fun & Games Publishing Inc., 350 East 81st Street, New York, NY 10028 (212) 734-4440. Annual (12 issues) subscription rate for U.S. only is $18.00. Add $4.00 for Canadian and $20.00 for foreign orders. Payment, (VISA, Master Card, check or money order) may accompany all orders. Application to mail at second-class postage rates is pending at New York, NY and at additional mailing offices. Postmaster send change of address to: *Electronic Fun with Computers and Games*, P.O. Box 947, Farmingdale, NY 11737.

ELECTRONIC FUN with COMPUTERS GAMES

Publisher and Editor-in-Chief
RICHARD EKSTRACT

Associate Publisher
WILLIAM O'BRIEN

Editor
GEORGE KOPP

Managing Editor
RANDI HACKER

Senior Editor
WILLIAM MICHAEL BROWN

Contributing Editors
MICHAEL BLANCHET, MARK TROST, JENS VON DER HEIDE, PHIL WISWELL

Copy Editor
KIM LARSEN

Creative Director
PETER PALAZZO

Art Director
MARJORIE CRANE

Associate Art Director
VICKI GORDON

Assistant Art Director
FRAN FIFIELD

Art Staff
DEBBIE KRIGER, DAVE KING, DANNY LOUIE

Production Director
CAROL VAN NATTAN

Production Assistant
KATHY MARQUIS

Typesetting
KATHLEEN MOONEY

Circulation Director
DAVID OBEY

Circulation Manager
EMELIA OLESON

Direct Sales Manager
KAREN LERNER

Assistant Circulation Manager
JUNE GRIFFIN

Circulation Promotion Manager
SHARON ANDORS

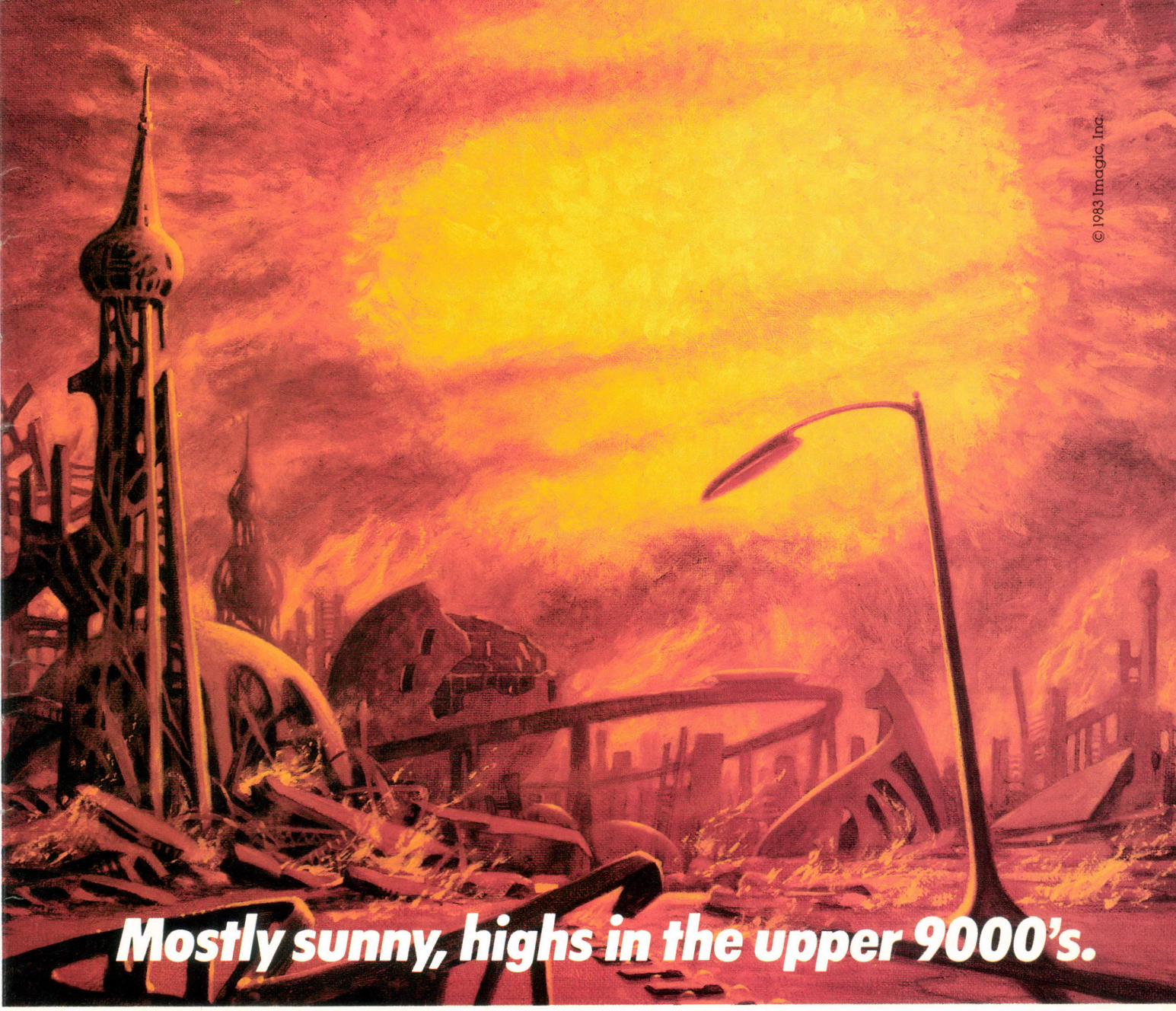
Advertising Director
ZOE AQUILLA

Advertising Sales Representative
DEBBIE SILVERBLANK

Western Regional Manager
SHELLEY FUNES

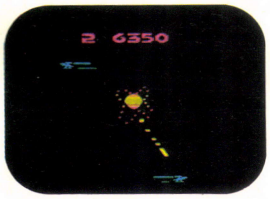
Advertising Coordinator
GREGG OCHS

© 1983 by Fun & Games Publishing Inc. All rights reserved. Printed in U.S.A.



© 1983 Imagic, Inc.





Solar Storm™ warnings are in effect.

The sun has exploded and the forecast is doom and destruction for your planet unless you stop the solar fallout and the invasion of alien Deltoids.

Bnnarrff. Kgonk. Brrullll.

Drat, your defendership has been useless against the solar flak and alien laserbolts.

Sizzle, krackle, ktczzzz...

Now the heat's on. Your planet's heat shield glows redder and redder with each Deltoid you miss.

Kponk. Kchungggg. Kblammm.

If you can't get to the orbital platform to battle with the Deltoid armada and secure more defenderships, say goodbye planet.

The Deltoid fireworks will be too much for the defense shields, and the planet will explode into another solar super nova.

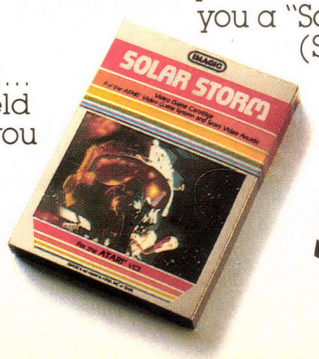
If all this sounds like fun in the sun to you, you're right.

That is, of course, unless you're just a fair player.

Then expect a few laser showers followed by a severe warming trend.

Shoot up a storm and win a free T-shirt.

Hit 5,000 points on Solar Storm and we'll send you a "Solar Storm Survivor" T-shirt. (See package for details.)



IMAGIC

Solar Storm

For the Atari® 2600™

New ways to take control

ATARI

Trak-Ball $79.95 (5200), $49.95 (2600)

You no longer have to use joysticks to battle those garden pests in *Centipede*. Atari has come out with its own line of trackball controllers for both the 2600 and 5200 systems (pictured here). Both controllers incorporate technology that should help improve the precision with which you play games that require trackball action. The Trak-Ball is built to arcade specifications and has rapid 360 degree movement.

These are just two in a new line of controllers being manufactured by Atari which includes the Proline Joystick for the 2600, remote control joysticks also for the 2600 and a specially designed Kid's Controller which is smaller and tailored to the needs and hand sizes of children aged three to seven.

Atari
1265 Borregas Ave.
PO Box 427
Sunnyvale, CA 94086





SUNCOM

Joy•Sensor $34.95

Everyone has some sort of complaint about one joystick or another—the handle is too short, the handle is too long, the fire button is on top, it isn't on top, it's too stiff, it's not stiff enough, etc. In fact, when it comes right down to it, you'd think that if the stick were eliminated altogether, all the problems would be solved. If nothing else, it would certainly be easier to pack. Well, Suncom has eliminated the stick on its new Joy•Sensor. It's designed to simulate the action of Atari-compatible joysticks through two activation panels. When the panels are touched by the player's fingers, the sensors cause the designated movements to be carried out on the screen. The stick may be gone but rapid fire hasn't been left out. It's built into the center of the Joy•Sensor's left or right-handed firing sensor panel. The Joy•Sensor is compatible with the Atari 2600, Sears Tele-Game, Atari 400/800/1200 computers, the Commodore computers and the TI 99/4A.

Suncom
650 Anthony Trail,
Suite E
Northbrook, IL
60062

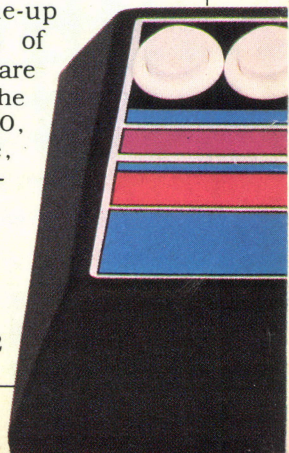
QUESTAR

Questar IIC $42.95

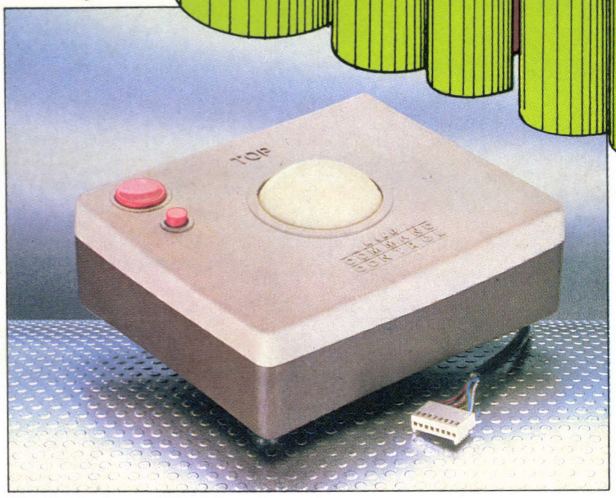
Questar is a buttondown sort of company. By that we mean that it manufactures several controllers which either supplement the joystick with buttons or replace the joystick with buttons. Questar I, for example, is a button console that can be used in place of a joystick. Questar II is a joystick console with dual fire buttons for both right- and left-handed play. And Questar IIC (pictured here) is a special joystick console for ColecoVision owners. It has two sets of buttons for both bombs and lasers. If arcade action is what you're after then Questar can satisfy you. The layout, longevity, size and response of all their controllers is genuine arcade. The buttons are totally identical in size, shape and even in tension.

The Questar line-up currently consists of three models that are compatible with the Atari VCS, 400/800, Sears Tele-Game, ColecoVision, Commodore 64 and VIC-20.

Questar Controls
670 NW Pennsylvania Avenue
Chehalis, WA 98532



Joysticks



WICO

IBM Trackball
(Model 50-2090)
$89.95

There may not be a lot of games for it yet but IBM is well on its way to being a computer with a lot of upscale game accessories. When the games do start rolling in, you can start rolling the scores with this new Trackball controller from Wico. Designed especially for the IBM personal computer, the Trackball has many attractive features. In addition to sealed steel bearings and spring suspension, there are two independent fire buttons and the phenolic ball gives players 360 degree movement.

Wico
6400 W. Gross Point Road
Niles, IL 60648.

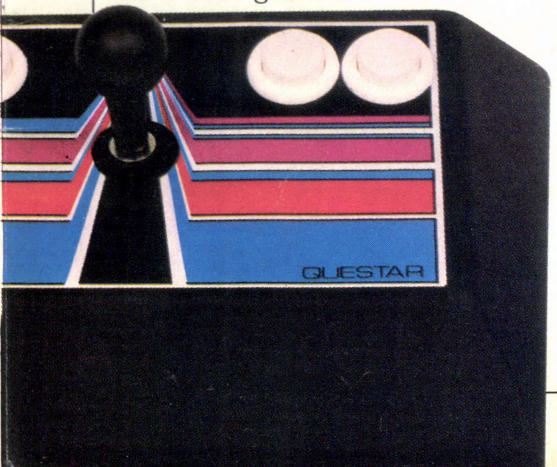
JD HOME ASSOCIATES

The Obelisk $49.95 (one player)
$84.95 (two player) (not pictured)

Being comfortable and playing home video games used to be almost a contradiction in terms. Either you sat on the floor and risked lower back problems later in life or you relaxed in your favorite chair and risked instant death at the hands of, say, the evil Gorfian Flagship. The Obelisk solves this problem. How? By putting the joystick controls into a raised stand which comes up to the height of your favorite chair.

The joysticks and fire buttons are manufactured by companies that make them for arcade games and the Obelisk is compatible with the Atari 2600, 400/800, the Commodore VIC-20 and ColecoVision (except for *Cosmic Avenger*). Each unit comes with a 12" Wico extension cable and, for $9.95 more, you can get a rapid fire button.

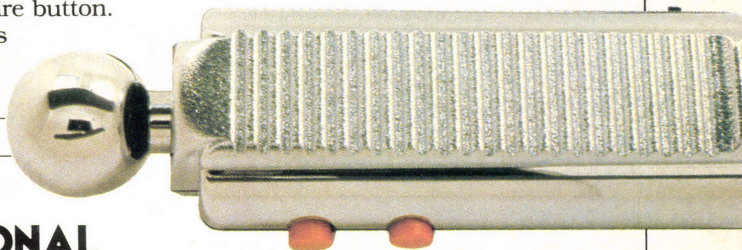
J.D. Home Associates
618 W. Griffin Dr.
Bozeman, MT 59715



ZIRCON INTERNATIONAL

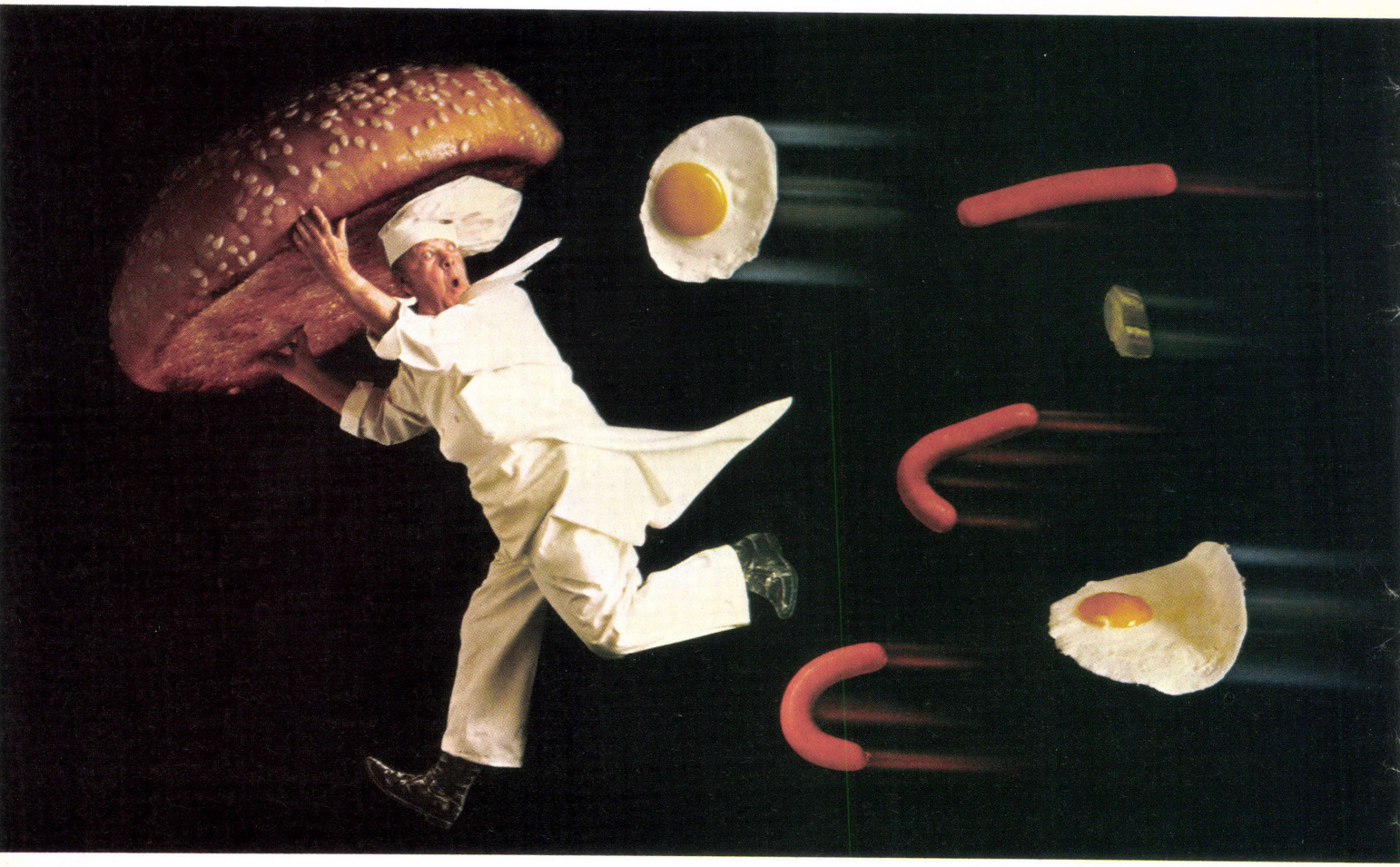
Z-Stick $29.95

Three, three, three controls in one. That describes the new Z-Stick joystick from Zircon. Built into this chrome-plated baby are three ways for players to improve the precision of their moves—Maze Control, Speed Control and Autofire. The Maze Control gives players the option of eliminating diagonal response when playing maze games. On these games, only the X-Y axis is used and diagonal signals are effectively ignored by the computer, giving players more exact control. Speed control allows players to slow the object they control on the screen to 50 percent of its normal speed, and autofire converts the fire button to a rapid fire mode at the flip of a switch in games where the ammunition is not limited. The Z-Stick is designed to be held in the palm of your hand in order to reduce player fatigue. **Because of its design, it can be used with equal facility by both right-and** left-handed players, a flexibility not available in other unmodified joysticks. Z-Stick is compatible with Atari, ColecoVision, TI and Commodore hardware.

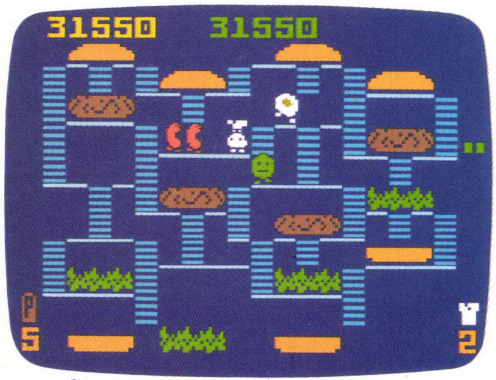


Zircon International
475 Vandell Way
Campbell, CA 95008

TO BEAT OUR NEW HOME VIDEO GAME, YOU'VE GOT TO MOVE YOUR BUNS.



If you've been waiting for the home version of one of America's hottest arcade games, your order is ready. Introducing BurgerTime™* from Mattel Electronics. For your Intellivision,® Atari®2600, Apple®II,** Aquarius™**or IBM® Personal Computer.



Shown on Intellivision. Game varies by system.

Your job is to climb up the ladders and assemble an order of giant hamburgers. But you've got to do it fast because you're being chased by killer hot dogs, sour pickles and a very nasty fried egg.

Good thing you've got your pepper shaker. One shake and they're stunned. But just make sure you don't run out of pepper. Because you know what happens then.

You stop making lunch. And you start becoming it.

BurgerTime™

FROM MATTEL ELECTRONICS®

* Trademark of Data East USA, Inc. used under license. © 1982 Data East USA, Inc.

**Coming soon. © Mattel Electronics, Inc. 1983. All Rights Reserved.

letters to the editors

PARKER STRIKES BACK

In the Top Ten for home video games in your March issue, you rated *The Empire Strikes Back* as number eight, and said it was by Imagic. *The Empire Strikes Back* is made by Parker Brothers, not Imagic.

Andy Campbell
Flint, MI

You're quite right, Andy, and we apologize for the error.

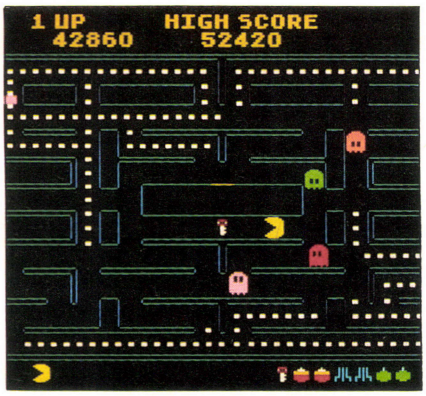
SPECTRA/COLECO

In your May issue, someone asked if Atari was going to make an adapter to play ColecoVision games, and you said no. Then, in the "They're Almost Here" article, you said Spectravision was making an adapter for Atari that would play ColecoVision carts. Well, which is it?

David Earles
Calvert City, KY

We thought the article was pretty clear, David. What we said was that SpectraVideo is making a Coleco adapter for their own SV-318 computer—not for the 2600, 5200, or any other Atari system. The adapter will let you use the SV-318 computer to play any Coleco-compatible cart—including Coleco carts that SpectraVideo itself is making.





You lose, Derek

TOUGH LUCK, KID

In your June issue, a guy named Derek Millen wrote you and said his score on the Atari 5200 *Pac-Man* was 999,995. He is obviously not telling the truth, since it's impossible to have a five at the end of your score on 5200 *Pac-Man*. The last number is always a zero. Nice try, Derek!

Chris Vecchione
Springfield, NJ

NAME GAME WINNER

I just wanted to let you know that I received the ColecoVision that I won in your Name That Game contest, and we think it's really terrific. The graphics are the best I've ever seen on a home system, and the game play is super too. I've already bought more game cartridges for it, and I couldn't be happier. It will provide years of fun, and I am really thrilled—thank you so much.

James Redd
Camden, OH

COLECO CLUB

Does Coleco have a club I can join that will let me buy ColecoVision cartridges and accessories before they come out at reduced prices?

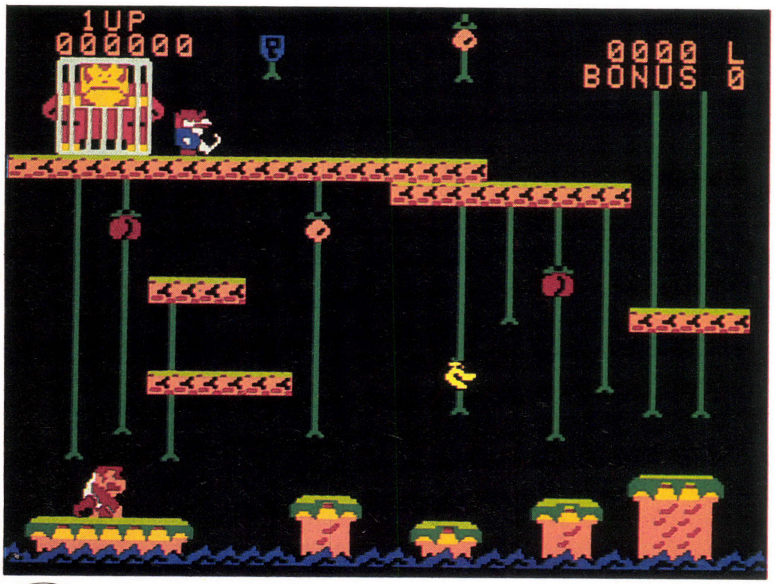
Mike Kirkpatrick
Houston, TX

Yes. You can join the ColecoVision Video Club by sending your name, address and $6.00 to ColecoVision Video Club, P.O. Box 4045, Syosset, New York 11791. You'll get a one-year subscription to the Club magazine ColecoVision Experience, *strategy tips not available elsewhere, a membership card and special members-only offers on ColecoVision products.*

Write to us! We can't promise that we'll answer every letter, but we will read them all. We welcome your comments, advice and questions. Send your letters to: Electronic Fun, *350 E. 81st St., New York, NY 10028*

output input

A step-up in the right direction



I would like to start by saying that your magazine is the best in the field. A couple of months ago I decided to step up from my Atari 2600. That left the choice between the Atari 5200 and ColecoVision. It seems everyone I asked that actually compared the two systems preferred the ColecoVision. Finally, the chance came for a hands-on comparison and the winner is . . . ColecoVision by a longshot. The whole family loves it. I have a few questions: How is it we can play DONKEY KONG, Jr. at home before it's in the arcades? Is Coleco going to make a practice of releasing their carts before the pay-for-play version? What's new with the Atari lawsuit? What does Coleco have in mind for the future? With all the competition making voice modules, will they? When is the computer module due and how much will it cost? Thanks for your great magazine.

John Conyard
Canandaigua, NY

No, Coleco is not planning to make a policy of releasing the cartridges before the arcade games. In some arcades, *DK Jr.* was out before the ColecoVision version. If in your neighborhood it wasn't, well, that was probably a fluke. As far as the lawsuits go, Coleco has settled everything with Atari and will be paying them a royalty for use of certain patents. As for the computer, well, Coleco is being mysterious about it. Very little is known about anything new from Coleco. In fact, it was like pulling teeth to get the information we got on the Super Game Module in last month's issue. I do have it from an inside source that there is work being done on voice, but when it will be out and how much it will be is still unknown.

I recently bought your magazine and was really considering subscribing. I've been wanting to buy a computer and your magazine is really helping me decide. I have one question though. Is it true that certain companies are making cartridges that will turn the Atari VCS into a computer?

David Speck
Harrisburg, PA

You've got it half right, David. Certain companies are making devices—not cartridges—that will turn the VCS into a computer. What they are, for the most part, are computer keyboards that plug into the cartridge slot on the VCS. Among the companies which make these peripherals is Atari itself, which has a keyboard that adds 8K to the VCS memory and has built-in BASIC. This and other things that can be plugged into the VCS to upgrade it are covered in last month's article entitled "The All-Purpose VCS."



I hope you can help me. I have a Fairchild Video Entertainment System F, and I can't find cartridges in any store. I was told I can only get them in New York but I'm in Puerto Rico. Can I get them anywhere else?

Milagros Cedro
Toa Baja, PR

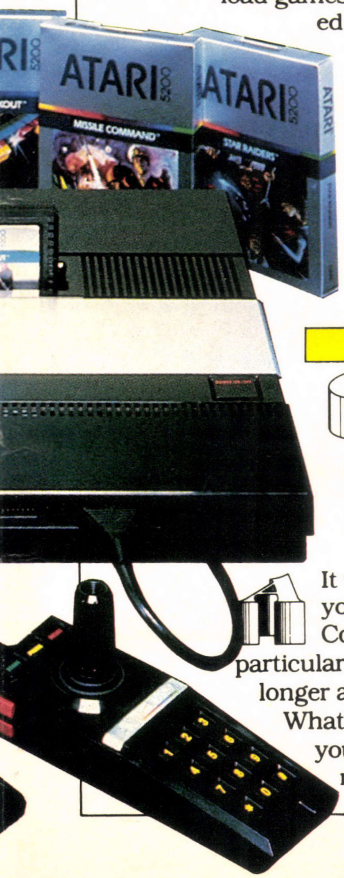
Unfortunately, there are no outlets that sell Fairchild games in Puerto Rico. In fact, the only way you can get any cartridges for the system is to order them through the company.

Right now, they're having a half-price sale. If you order one cartridge, you'll get one cartridge of equal or lesser value free. If you're interested in obtaining games this way you can either call Fairchild at (408) 866-4500 or write to them at 475 Vandell Way, Campbell, CA 95008.

First off, you dudes have a great magazine. Now for my question. Why is the cassette player required to play the Supercharger video games and how does it work?

Kevin McEvoy
Frankfort, KY

Cartridges and cassette tapes are each ways to store the electronic information your VCS decodes into a video game! Although many people refer to cartridges as "tapes," this is a misnomer. There's no tape involved. It's all done with ROM (Read Only memory) chips. Starpath uses no chips. They use standard audio cassette tapes. Why? For one thing it's a lot more economical—the games are about half the price of standard cartridges. For another, using tape enables Starpath to produce multi-load games—games that have extended game play because different elements can be loaded into the VCS as the tape moves forward. The Supercharger itself improves the game capability of the VCS by adding 6K bytes of RAM (Random Access Memory) to the existing memory. This means better graphics and more complex games for you.



What is CommaVid's Magic Card? What does it do? Where can I get one and for how much?

Chris Sanchez
Augusta, GA

It would be better to phrase your question: What *was* CommaVid's Magic Card. That particular cartridge is, I'm afraid, no longer available from the company. What it did do at one time was give you, the user, access to the microprocessor inside the VCS and thus allow you to program your own game right on the 2600. If you want, you can write to CommaVid at 1470 N. Farnsworth, Suite 203, Aurora, Il 60505.



Output/Input, Coming Attractions, Equipment Reviews, Game Reviews and Top Secret generate an abundance of wealth. Needless to say I enjoy your publication. I have a question. How many "K" does an arcade game have?

R.T. "Engram" Williams
Brooklyn, NY

That's a tough one. Each arcade game is different but every arcade game contains several memory chips, each with anywhere from 64K to 128K. There are about 12 to 14 chips in every game. You multiply it out!

So far I've heard about the Intellivision computer keyboard add-on, the ColecoVision computer expansion module and the Odyssey³ (also with computer keyboard). Now, the point is. I have an Atari 5200 super system and what I want to know is will there ever be a computer add-on for that?

Ken Weiner
Howell, NJ

Yes, there will. In addition to having a 2600 adapter, Atari will have a computer add-on—and another as yet undisclosed adapter for the 5200 which will be in the stores sometime in 1984.

Do you have a question about video games or computers that needs answering? Send your questions to: Electronic Fun, *350 E. 81st St. New York, NY 10028.*

ELECTRONIC FUN-COMPUTERS & GAMES

E.F.G. Times

VOLUME ONE, NUMBER TEN AUGUST, 1983

COLECO'S ADAM IS FINALLY HERE!

Sir or madam, meet Adam—or, rather, Adams. The long-awaited Coleco computers are finally here—both the computer module that turns your ColecoVision into a full-function computer *and* a freestanding Adam. Each has 80K of user-accessible RAM (expandable to 144K), a 75-key keyboard and built-in BASIC. Not only that, they come with a daisywheel letter-quality printer, a memory module, a built-in word processor and a Super Game Pack *Buck Rogers Planet of Zoom*. The freestanding Adam costs $600 and the add-on, $400.

Both the freestanding and add-on Adams are totally compatible with all the Coleco ROM game cartridges and every expansion module Coleco has released in the last year—including expansion module #1, which allows you to play VCS-compatible cartridges through the console. Adam also turns the ColecoVision controllers into cursor-control peripherals which give you instant control of cursor placement—without having to search the keyboard for those elusive arrow keys, or remember arcane patterns having to do with the letters m, k, j and i.

Just like the first Adam, Coleco's Adam has an apple in its life. Adam's built-in BASIC is so similar to Applesoft that any program written on an Adam can be typed into an Apple and run with no modification.

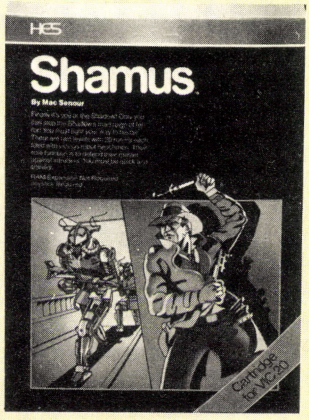
Although you can bring Adam home from the store and use him for months without having to return for anything else, Coleco does have a number of peripherals planned for future release, including a modem and a disk drive. Coleco also says there will be ample software for the system in addition to the software that already exists.



Adam standalone and (foreground) the Adam add-on.

August Games Check In: From AE to Gruds

Here's a roundup of new game releases available this month:



New for the VIC-20: Shamus.

ACTIVISION—*Dreadnought Factor, Crackpots, Decathlon.*

BRODERBUND—*AE, Sky Blazer, Seafox* (for VIC-20); *Choplifter, Serpentine, Seafox, David's Midnight Magic* (for Commodore 64); *Questron, Lode Runner, Gumball, Matchboxes, Operation Whirlwind.*

COLECO—*Zaxxon, Donkey Kong Jr.* (for Intellivision).

DATASOFT—*Dallas, Bruce Lee, Pooyan, Genesis, Moon Shuttle* (for various computers).

HES—*Shamus* (VIC-20).

IMAGIC—*Solar Storm, Moonsweeper, Fathom* (for VCS).

INFOCOM—*Witness* (for Apple).

MATTEL—*Major League All-Star Baseball, Motocross, Pinball* (for Intellivision);

Continued on page 16

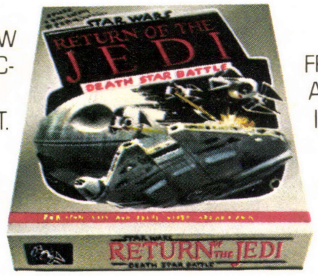
STAR WARS
RETURN OF THE JEDI
DEATH STAR BATTLE
VIDEO GAME CARTRIDGE



ZERO HOUR APPROACHING! SKILLED REBEL PILOT NEEDED TO BATTLE DEATH STAR.

SITUATION DESPERATE! POWERFUL NEW *DEATH STAR* REPORTED UNDER CONSTRUCTION. MUST BE DESTROYED BEFORE ITS DEADLY COMPLETION OR ALL WILL BE LOST.

MISSION INVOLVES SPLIT-SECOND SKILL. MUST FLY *MILLENNIUM FALCON* THROUGH ENEMY FORCE FIELD...PENETRATE *DEATH STAR* DEFENSES...AND NEUTRALIZE CENTER CORE.



WARNING! EXPECT HEAVY RESISTANCE FROM EMPIRE'S *TIE INTERCEPTORS*. ALSO NOTE...BE ON ALERT FOR TRACKING DEATH RAY.

TIME RUNNING OUT. ALL *REBEL PILOTS* REPORT IMMEDIATELY FOR *RETURN OF THE JEDI DEATH STAR BATTLE*. THE THRILLING HOME VIDEO GAME FROM PARKER BROTHERS.

For the Atari 2600™ and soon available for Intellivision.®

PARKER BROTHERS

* ®, * TM & © Lucasfilm Ltd. (LFL) 1983. All rights reserved. Parker Bros., a div. of CPG Products Corp., Authorized User. Atari 2600™ is a trademark of Atari, Inc. INTELLIVISION® is a registered trademark of Mattel, Inc. Parker Brothers is not affiliated with Atari, Inc. or Mattel, Inc.

E.F.G. Times

IF A PAC-MAN ANSWERS, DON'T HANG UP

It used to take a computer and a $300 computer modem to get games delivered to your home telephone. Not any more.

The Atari VCS and compatible systems are the core of the newest game network service, GameLine. Scheduled to begin operation all over the country by this fall, GameLine supplies players with a special plug-in Master Module that will connect their home game systems via telephone to a game-packed central computer.

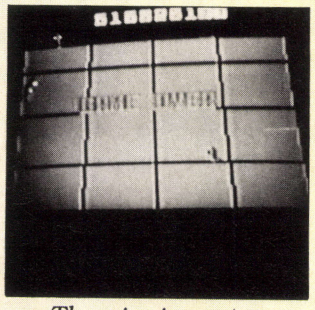
The Master Module comes complete with a telephone cord and "Y" adapter to connect the home game system to a telephone. The Module is designed to plug into the cartridge slot of any Atari-compatible game system, including the VCS, the Sears Video Arcade, the Coleco Gemini unit and ColecoVision consoles equipped with Expansion Module #1. It's also expected to work with any Intellivision Master Component equipped with a System Changer, and other systems which have VCS adapters.

Once in place, the Master Module automatically calls a local or toll-free GameLine number and downloads video game programs from the central computer within one minute. Once a game has been stored in the module's 8K RAM memory, the phone is free to be used again, and the game can be played exactly as if it had come in the usual cartridge form.

What games will be on the system? Specific titles weren't available at presstime, but the lineup includes Fox, Imagic, TigerVision and Spectravision.



The VCS modem: Gameline's Master Module



The winning entry

Monthly Contest

The winner of our May *Tron Deadly Discs* contest was Bennet Nathanson of Redondo Beach, California. Bennet's score was an incredible 516,826,100 points.

Each month we pick a home video cartridge and hold a contest for the highest score. The winner gets the cartridge of his or her choice. This month's game: *Frogger* by Parker Bros. for the VCS.

To enter, send us at least one clear photo of your score on a TV screen (to get a good picture: Turn up the brightness control on your TV, turn out all the lights in the room and don't use the flash). On the back of the photo, or on a three-by-five card, print or type your name, address, phone number and the title of the cart you'd like to get if you're the winner. Send entries to August Contest, EF, 350 E. 81st St., NY,NY 10028. All entries must be received by September 15th in order to qualify. In case of a tie, the winner will be selected by random drawing.

More New Games

Space Shuttle (for Intellivoice); *Computer's Revenge, Scoobie Doo, Rocky and Bullwinkle* (VCS/M Network).

PARKER—*Incredible Hulk, Popeye.*

SIRIUS—*Gruds in Space, Critical Mass, Plasmania, Buzzard Bait* (for Apple); *Spider City, Alpha Shield* (for Atari computers); *Squish'em, Fast Eddie* (for Commodore 64); *Space Eggs, Gorgon II* (for IBM PC).

STARPATH—*Rabbit Transit, Sweat.*

Other game news:

***Imagic** will not be releasing *Sky Patrol* due to "lack of high consumer appeal", according to the company.

***Fox Games'** *Porky's* is now available in the following formats: VCS, VIC-20, TI 99/4A, Atari 400/800, Intellivision, ColecoVision.

***Milton Bradley** will be making a voice synthesis and voice recognition plug-in module for both the Atari 2600 and Atari 5200. The module will be sold with a combination headset/microphone, and will work with a total of eighteen special Atari cartridges to be developed over the next three years.

***ZiMag** has discontinued its video game line entirely.

***Vectrex**'s light pen, computer keyboard and 3-D Imager will be available this fall, instead of Christmas as was reported earlier.

★ **CBS** has four new titles for Intellivision: *Gorf, Solar Fox, Wizard of Wor* and *Blueprint.*

JAMES BOND 007™ AS SEEN IN OCTOPUSSY

VIDEO GAME CARTRIDGE

"Sensational, a real thriller... It's James Bond all the way."

"The action was so involving, it made me feel just like the master spy himself."
–Daily Platter

"Karate kicks, jumps, lasers and more..."

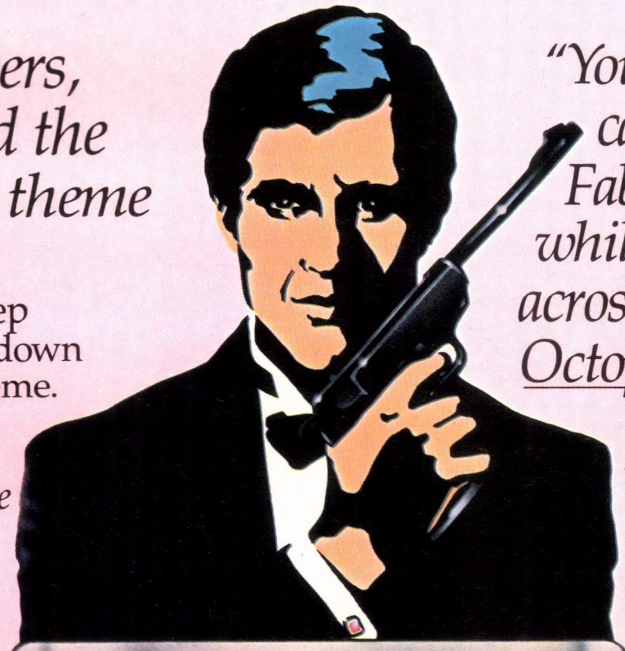
"A truly unique home video game. Captures Bond at his best."
–Morley Unsafer

"Knife throwers, gunmen and the James Bond theme to boot..."

"It's Bond every step of the way. Right down to the musical theme. The thrills are non-stop."
–The Rolling Pebble

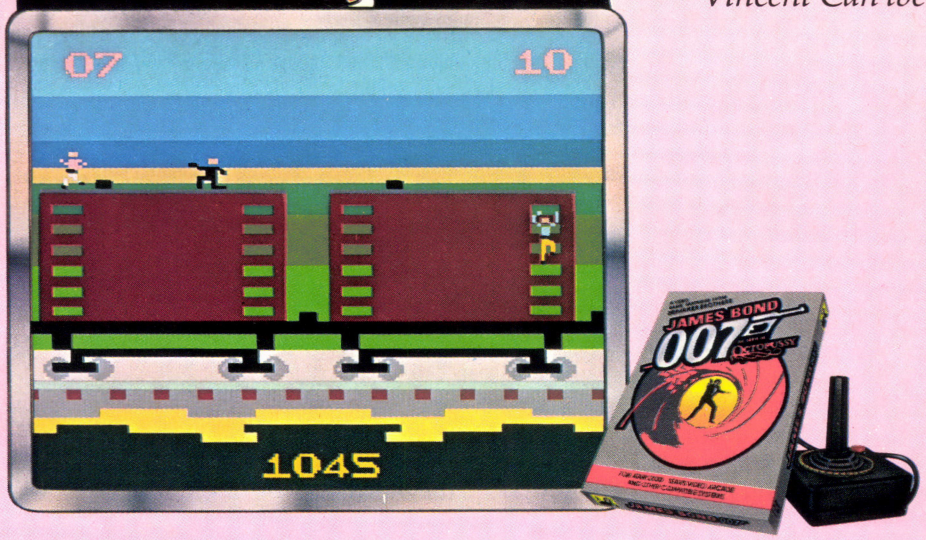
"The longer the game went on, the more furious the chase became..."

"When Bond leaped from train to train, my heart skipped a beat."
–Boston Orb



"You'll try to capture the Fabergé gems while bounding across the speeding Octopussy Circus Train..."

"The Bond home video game is a priceless gem."
–Vincent Can'tbe



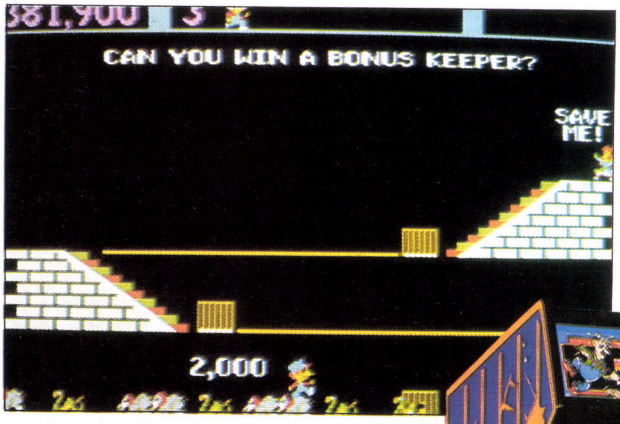
For your Atari 2600 Video Computer System™ and the Sears Video Arcade.™ Coming soon for Intellivision.®

®PARKER BROTHERS

© Eon Productions/Glidrose Publications Limited 1983. Atari® and Atari Video Computer System™ are trademarks of Atari, Inc. Sears Video Arcade™ is a trademark of Sears Roebuck & Co. Intellivision® is a registered trademark of Mattel, Inc. Parker Brothers is not affiliated with Mattel, Inc. © 1983 Parker Brothers, Beverly, MA 01915

Screen plays

Zoo Keeper and Wacko . . .



By Michael Blanchet

ZOO KEEPER

It's been 10 years since I've been to a zoo. After playing *Zoo Keeper*, I'm not sure I want to go back to any zoo ever again. Unlike your normal zoo where the animals are already safely behind bars, the zoo in *Zoo Keeper* is best described as a self-service operation—that is, you must incarcerate the animals yourself.

The underlying conflict in *Zoo Keeper* is a familiar one. It seems that Zeke (that's you) has, according to the game directions, "a problem". He has lost his girlfriend Zelda at the zoo. The culprit responsible for her disappearance is yet another lecherous monkey with an eye for the ladies. To free her from the simian's clutches, Zeke must make his way to the top of the screen by jumping on a series of moving platforms. But before he reaches the platform, Zeke must first fence in a bunch of snakes, camels, mooses and lions that have a taste for bricks.

As Zeke runs around the playfield, a trail of bricks is left behind. Ideally, Zeke should replace the stones as the animals eat them, thereby keeping the creatures locked up when the round ends. Of course, this is not an ideal world, so this is not always the case.

Each game of *Zoo Keeper* is broken down into rounds. Each round lasts until the fuse running east to west along the top of the screen burns down to the end. At this point, your score is credited for every creature remaining inside the confines of the wall. No creature in captivity poses a threat to Zeke's well-being. The ones to worry about are the ones that have chomped their way through the wall.



Net Results

The only way to corral the errant beasts is with the net which appears once in each round. To determine when the net will appear, watch the time line. With net in hand, Zeke can swat every creature in his path back inside the compound. Like an energizer in *Pac-Man*, the net only lasts a short time. When the playfield background begins to flash alternately black and blue, the net will soon disappear.

Collision with any animal will cost you one game life. To avoid such a calamity, Zeke must leap over them. Unlike other games, *Zoo Keeper* allows you to control the length of Zeke's jump. A running jump will carry Zeke a third of the way across the playfield. By manipulating the joystick, you can force Zeke down anywhere within the maximum distance. A long jump is great for leaping over a herd of animals, but it may wing you past one of the bonus objects

Continued on page 95



The moveable beast

WACKO

Just how wacky a game is *Wacko*? Aside from the game's cabinet, which looks like the Leaning Tower of Pisa, *Wacko* isn't very wacky, crazy or zany. On the contrary—you are the one that gets wacky after playing just one game.

Unlike your garden variety shoot-em-up, *Wacko* requires you to blast your victims in some semblance of order. Bad guys must be shot in pairs—that is, your first shot freezes the monster it hits and the second shot, hitting another creature of the same species, kills them both.



You are represented by a gremlin-like creature that is perched on top of a "kroozer" which, for all practical purposes, is a flying saucer. This disc is piloted by a trackball. Laser blasts are aimed and fired with either the left or right joystick. You can fire in four directions and fly anywhere except off the borders of the playfield.

The mechanics of play are quite simple: Just shoot the beasts in pairs. During the first three rounds you'll encounter an increasing number of bad guys. It is to your advantage to vanquish them quickly since bonus points are awarded on the basis of time. In a pinch, you can shoot any number of the creatures to momentarily freeze them. By all means, do so when you must save your skin—but you'd be wise to get in the habit of killing off pairs with a minimum of stray shots in between. This is good practice for later rounds when things get a bit more confusing.

If you are an avid fan of *Centipede*, *Millipede* or *Missile Command*, forget everything you know about handling a trackball. All of these games require you to literally whip the controller from side to side with very little precision work necessary. To an extent you must do the same in *Wacko*, only here control and accuracy are of the utmost importance. Unlike the previously mentioned games, your kroozer does not operate in a safe zone. It, like the monsters, has full run of the screen. You must move around them. All too often I found that a hastily executed move put me right in the lap of a monster. Be careful.

The joystick allows you to fire in four directions, so get in the habit of using it to its fullest potential. The natural tendency among beginners is to move the kroozer horizontally in line with the target and then fire either east or west. This works well in the earlier rounds, but you'll find that it becomes increasingly difficult to execute this maneuver when the screen becomes clogged with creatures later on.

From the third round on, misplaced shots can mess you up tremendously. If two back-to-back blasts hit unmatched creatures, the pair becomes a hybrid—a cross between the two. If, by chance, you create a pair of hybrids that are identical to one another, one shot at each will destroy both of them. Unfortunately, this is a rarity. If by mistake you create a dissimilar mutant pair, a second shot at each will unscramble them.

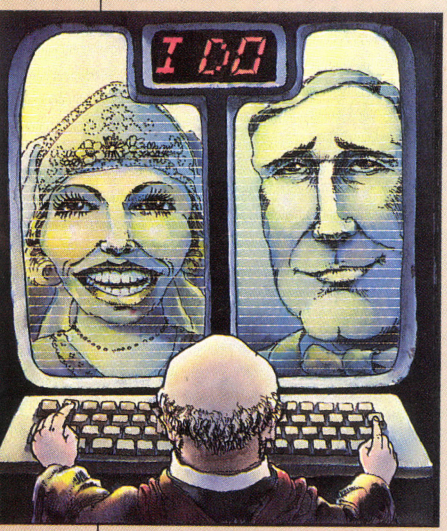
If a hybrid pair does appear, leave it alone in the interest of time and concentrate on the matched sets. By doing so, you are able to keep track of your shots. Confusion breeds hybrids.□



Soup Invaders: The last resort

The Micro Wore White

Marriages have been performed in many strange places—in the middle of a skydive, at the finish line of a race—but



this is the first one we've heard about that was done entirely on-line. Using CompuServe's CB user network, George Stickles and Debbie Fuhrman (whose handles are Mike and Silver) tied the knot. The ceremony was "witnessed" by dozens of invited guests—most of whom never left their living rooms miles and miles away and all of whom were subscribers to CompuServe. The ceremony started at nine p.m. Central Standard Time on Valentine's Day. Among the handles that attended were Admiral James T. Kirk and Gandolf. The wedding was preserved not in pictures but on computer printout, and some of the ceremony deserves to be reprinted here, complete with some imaginative spelling:

Minister: Soberly, maraige is one of themost joyess ocasions

ZIpp: Sniff, sniff

Gandolf usher: Shhhh!

Clearly what was needed here was Spellstar. We wonder whether this hi-tech couple will be the first to have a baby on-line, too. The printout for that occasion should look something like this:

Doctor: Boil some water!

Husband (Mike): Inhale.

Silver: Ouch!

Doctor: It's a boy!

Nurse: Slap!

Baby: Wahhh!

Very Personal Computers

If you really want to market something but haven't got a completed product, don't let that stand in your way. Companies more major than you don't, so why should you? Getting new products out is crucially important, especially in the field of consumer electronics where the technology changes oh, roughly every minute. Because they want to be the first to market with their new devices, many companies have gone to shows and started advertising products that don't exist. Prototypes will be shown, many of which are either simulations or videotapes of what the final version will look like, and occasionally smaller computers demonstrated are actually being run by larger computers hidden away behind a curtain (this is known as the Wizard of Oz technology). But perhaps the most blatant exploitation of this technique was employed when a company wanted to show a new computer and had nothing but the case built. What did they do? According to the New York Times, they placed a man beneath it all to work it. If you do plan to show a computer that works on this sort of technology, be sure that you're (a) very good at mathematical calculations and (b) have a definite artistic bent. People who are looking for high resolution graphics are simply not going to be satisfied with a stick figure of a man and a lot of smiling faces.





The Mod(em) Squad

Your average run-of-the-mill detective may be able to recognize a bullet hole made by a 325 magnum, pick up incredibly cogent clues from a single strand of hair and know just the right questions to ask a suspect about a bank heist but when it comes to computer theft he doesn't know his DOS from his elbow. That's why the police department in San Jose, CA (right in the heart of Silicon Valley, as if you needed to be reminded) has put together a new High Tech Squad to battle computer age criminals. This came out of a foiled attempt by a technician at a laser company to sell plans to the president of a rival company. The rival company's president called the police but when an undercover man was

Stitches

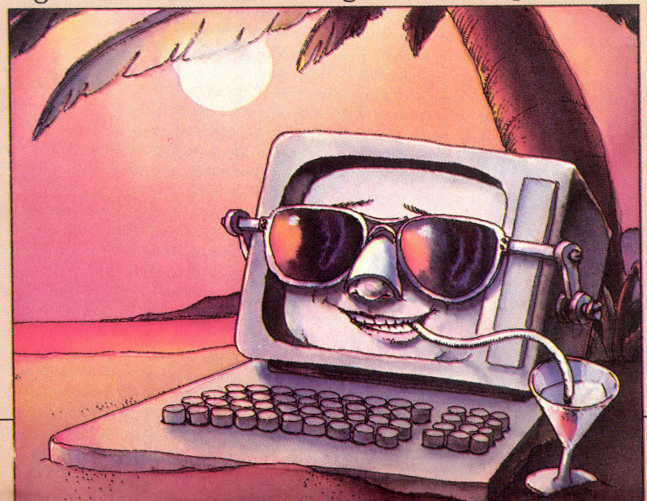


sent to negotiate the deal, the technician backed off because he suspected that the policeman knew nothing about lasers. He was right. The new squad will. The new squad will be able to handle this sort of thing with ease. And the standard dress of undercover agents—slouch hat, trench coat, unfiltered cigarettes—will doubtless be replaced by unironed white shirts, plastic pocket protectors filled with leaky pens and horn-rimmed glasses. These men may not know a forgery from a robbery but will be able to crack binary codes in the blink of an eye.

Run in the Sun

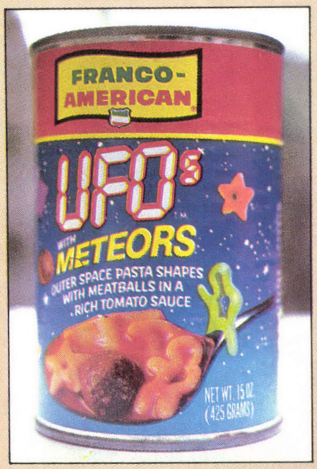
In the old days, you went on vacation to get away from it all. Included in "it all" was the wear and tear of everyday existence, phone calls, work and technology and all its evil ramifications.

In this increasingly computerized age, you can't even get away from CPUs when you go on vacation. Club Med, the plan that promises the antidote to civilization, has even caught the fever. They've instituted their own Club Med Computer Workshops. In case you get tired of sitting in the sun doing nothing, you can sit in the sun and write computer programs. The Club Med Computer Workshops are offered at three Club Med resorts in the Western Hemisphere—Caravelle, Guadeloupe; Eleuthera, Bahamas and Ixtapa, Mexico. Club Med offers classes in BASIC, word processing and family budget management. This, we feel, was not a smart inclusion in the program. Once you've computed your family budget, you'll realize that you couldn't afford this vacation to begin with and because of this, Club Med will be out one paying customer.



Food & Games Part VII or VIII or IX

There are a lot of things we want to do to aliens in video games—beat them, trounce them, wipe them out, destroy them, shoot them and kill them but eating them was not one of the activities that was high on our list of fun things to do. Not even with the proper condiments (e.g. ketchup, mustard or MSG) did we have the slightest desire to place an alien in our mouth. Apparently, not everyone shares our gourmet snobbishness. There's a new foodstuff from Franco-American which will join the ranks of Spaghettios and Raviolios. Called UFOs, it's a can full of aliens, galactic interceptors, star colonies and men in the moon (contrary to popular belief he isn't made of green cheese—he's made of soft pasta). The graphics in this game... er... food are lovely and the rules are simple: The first bowl is easy to get through. Once you've cleared a bowl without getting destroyed, you are presented with a second, more difficult bowl where the aliens are denser and tend to be harder to swallow. The same holds true for every bowl thereafter. The food is not played or eaten with a joystick. You use a spoon. Or, for greater damage, a fork may be employed.



Ben Hillman, Bob Winterson, Nick Fain, Ben Hillman

For Members ONLY

The phenomenon of the computer users group

By Josh Martin

Once a month, several hundred people get together up in Boston to trade information about how to make better use of their home computers. They are members of the Boston Computer Society. Like thousands of other such groups springing up across the country, the BCS was formed to help members get the most out of the computer hardware and software they use.

There are men's clubs, there are health clubs and there are running clubs. All were put together by people who shared a common interest, presumably so that they could get together and talk to each other about a subject in which not everyone shared an equally rabid interest. Joining a running club and talking to fellow members about shin splints and bone spurs and how many miles you did last week takes a considerable burden off family members who may not be as thoroughly caught up in running as you are.

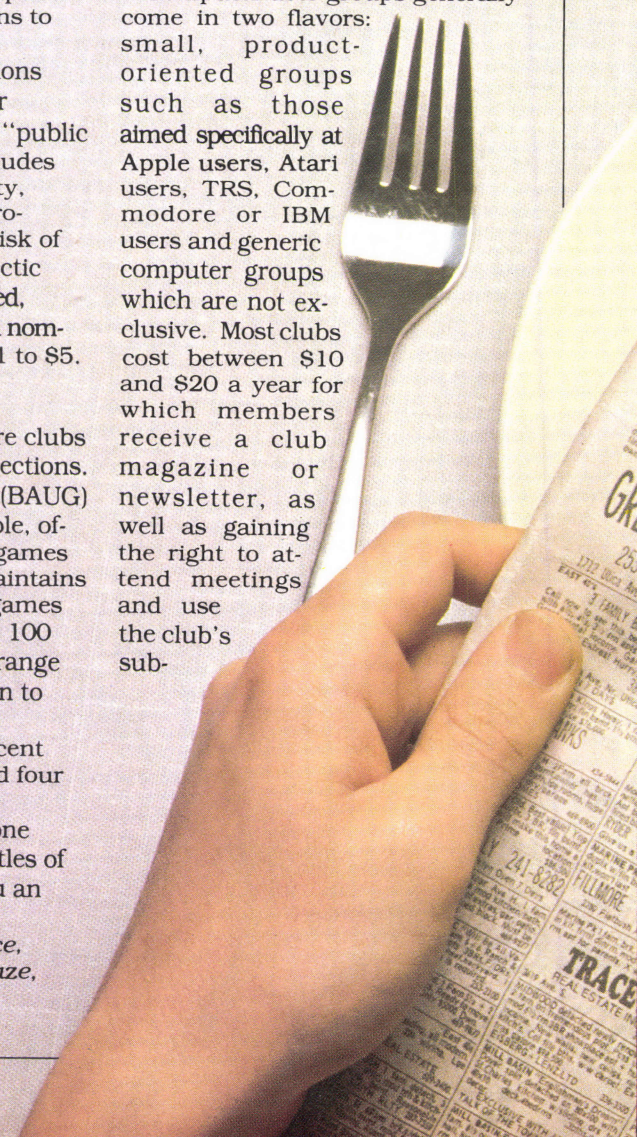
So it isn't surprising that computer users would also want to have special interest clubs. And they do. Computer user clubs are found just about everywhere and this is a definite reflection of society's changing attitude toward computers. Ten years ago, no clubs existed at all and today there are over 2,000 user groups with a combined membership exceeding 250,000. User clubs offer members an amazing variety of services from courses in how to write computer programs to language lessons to free software offers.

One of the biggest attractions home computer groups offer members is free or low cost "public domain" software. This includes video games, graphics, utility, business and educational programs. Many clubs offer a disk of the month on which an eclectic selection of programs are stored, and for which members pay a nominal fee of anywhere from $1 to $5.

Maze Craze

Some of the larger software clubs have extensive software collections. The Big Apple Users Group (BAUG) in New York City, for example, offers over 200 public access games just for the Apple. BAUG maintains a library of 80 commercial games for demonstration as well as 100 public access games which range from simple word association to some which involve fairly sophisticated graphics. A recent BAUG disk of the month had four games, five utilities, five art/graphics programs and one educational program. The titles of some games should give you an idea of the variety of games available: *Marooned in Space, Adventure Slice, Dragon Maze, Monsters, Starwars Rescue, Minotaur's Lair, Automatic Bingo, Battle of Numbers* and the rather banal *Tic Tac Toe.*

Computer user groups generally come in two flavors: small, product-oriented groups such as those aimed specifically at Apple users, Atari users, TRS, Commodore or IBM users and generic computer groups which are not exclusive. Most clubs cost between $10 and $20 a year for which members receive a club magazine or newsletter, as well as gaining the right to attend meetings and use the club's sub-



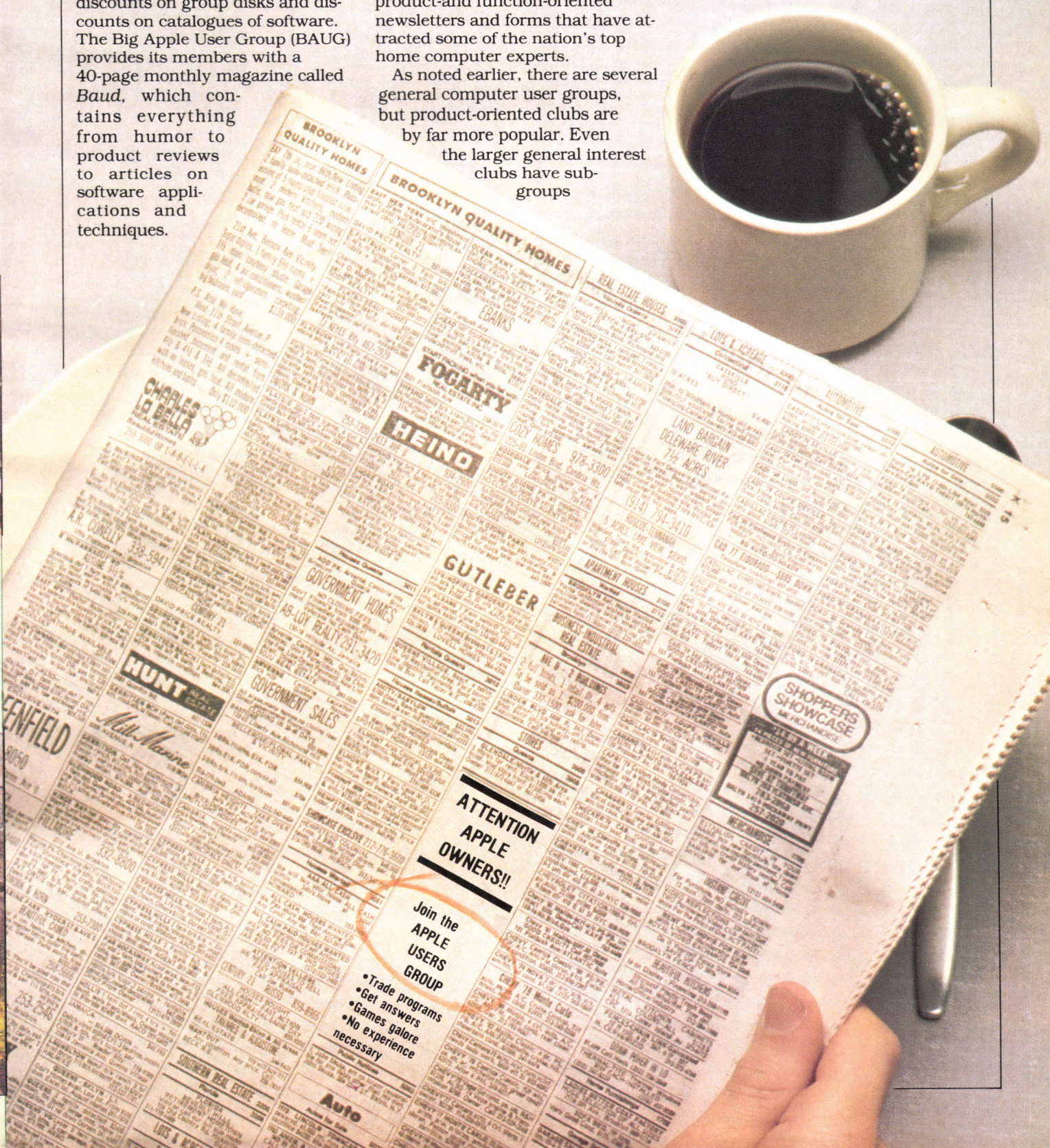
stantial resources.

The New York Amateur Computer Club for example sends out a monthly newsletter, gives members discounts on group disks and discounts on catalogues of software. The Big Apple User Group (BAUG) provides its members with a 40-page monthly magazine called *Baud*, which contains everything from humor to product reviews to articles on software applications and techniques.

The Boston Computer Society, with its 25 specialized user groups and resource centers, offers its 7,000 members a general magazine, product-and function-oriented newsletters and forms that have attracted some of the nation's top home computer experts.

As noted earlier, there are several general computer user groups, but product-oriented clubs are by far more popular. Even the larger general interest clubs have subgroups organized around specific equipment types.

There are groups for Atari, TRS, IBM, Commodore and other sys-



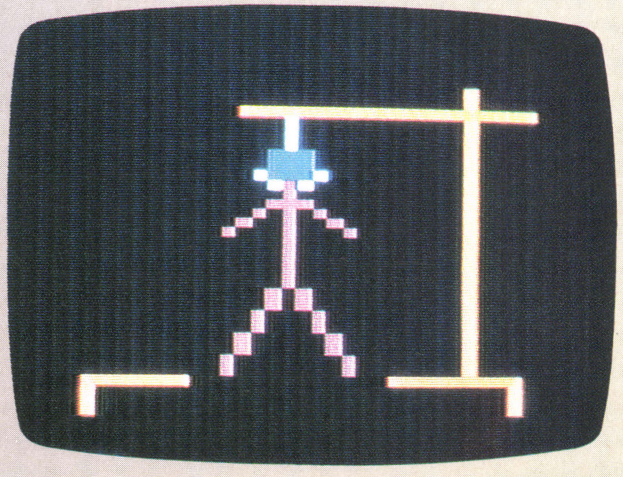
tems but the largest number of product-oriented clubs are the more than 300 Apple user groups. And these are not restricted to the continental U.S. either. There are Apple clubs in Australia, Canada, England, Ireland and New Zealand. And just because these groups are full of serious computer hackers doesn't mean that they've lost all sense of humor. Names given to the chapters of the Apple clubs attest to that: Adam & Eve Apple Group (Madison, WI), Crabapples (Carbondale, IL), Green Apples (Greensboro, NC) and Apple PI (Thousand Oaks, CA) to name just a few.

Perhaps the most beneficial service provided by product-specific user groups is the swapping of information on how to get the most out of the given computer. With so many people working on the same machine, there's an infinite number of things that can be discovered and imparted. In addition, members with the same computer can swap software and programs unlike those who operate incompatible systems.

Don't let not owning a computer deter you from seeking out a computer group in your area if you're at all interested in the science. By all means, attend a few meetings. Not only will this help dispel any fear you might have of computer technology, it could also help you decide which computer you want when the time comes for a decision to be made. Often your decision on which computer to buy could be influenced by the people or services you might find available at a particular club.

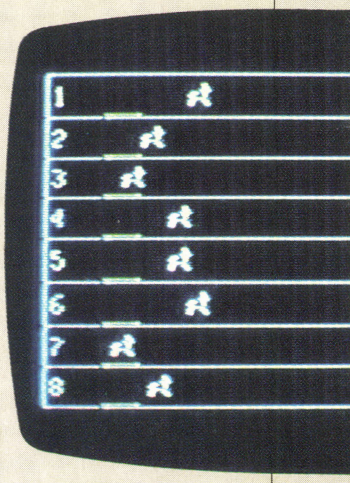


Furthermore, don't let inexperience turn you into a shrinking violet. There's no reason to feel ashamed because you're not an expert. No one expects you to be. In fact, user groups function as a means to achieve expertise through information exchange, workshops, etc. Information is generally imparted in informal settings and members work together to solve problems. And, above all, computer clubs are a form of networking—they're there to provide information. A growing number of clubs have even begun to link up with other clubs around the country pooling information and sharing resources.



When shopping around for a club there are certain basic things you should look for. Find a group of people you're comfortable with. If you're young, for example, you might want a group that had a substantial number of other young people. Many clubs have a big teenage membership of all levels who have joined to learn computer basics, augment their skills or get access to public domain game software.

If you haven't got a computer, the club should be able to offer you tips so you can do comparison shopping. If you already have a computer, find a club that has members using the same equipment and with whom you can exchange information. It's no good to join a club which will have no one else to commiserate with about certain glitches and eccentricities peculiar to a specific piece of hardware. And if no other Apple user is a member (assuming you own an Apple), who will be there for you to create arcane, inside jokes with?



More important, be sure the club provides you with the information you'll need. If no one else is there with whom to exchange information, you might as well take your computer and join DAR for all the good it will do you.

Since information is the operative word here, be sure your computer club offers you a resource center chock full of the programs you want to run. Once again, it would be a waste of time to join a user group that is interested in the bloodlines of the Russian czars if the only blood you're interested in is that of your alien enemies.

And, finally, be sure that the resources available give you the opportunity to grow. There should be material from the most basic to the most advanced level so it can accommodate you as you grow more sophisticated in your programming.

For more information on computer user groups in your area, write to or call the Boston Classroom Computer News to obtain their 1983 Directory of Educational Computer Resources. This is a comprehensive listing of all computer services around the country with a special section on user groups. The address is 341 Mt. Auburn St., Watertown, MA 12172. (617) 923-8595. □

Three games from the Big Apple Users Group: Left to right, CENTURY, HANGMAN and HORSE RACE.

SOLAR FOX™

SPEED AND STRATEGY ARE ALL YOU HAVE AND THEY JUST MIGHT BE ENOUGH!

EARTH IS DESPERATE FOR ENERGY, SOLAR FOX, YOU'RE MANKINDS ONLY HOPE! GET THE SOLAR CELLS EARTH NEEDS TO SURVIVE. JUST WATCH OUT FOR THOSE DEADLY FIREBALLS.

THERE ARE-LIKE MILLIONS OF THEM SOLAR FOX. WHAT ARE WE GOING TO DOOO?

YOU TAKE EVASIVE ACTION AND START STREAKING THROUGH 26 FIELDS OF SOLAR CELLS. YOU'LL MAKE IT ON SKILL AND GUTS.

AWESOME.

GNARLY!

DON'T WORRY.

AND IF YOU'RE REALLY FAST YOU'LL SKIP AHEAD TO EVEN TOUGHER FIELDS!

LOOKS LIKE HOME FREE. BUT WAIT! THE SUPREME TEST AWAITS IN THE MYSTERIOUS CHALLENGE FIELDS. ... WILL YOU MAKE IT?

LIKE-CAN I DRIVE?

WHAT A SPACE CADET!

WILL YOU SAVE EARTH? FIND OUT. GET BEHIND THE JOYSTICK OF ™ SOLAR FOX!



CBS Electronics

Where the excitement never ends.℠

For your Atari® 2600™ available soon for Atari® 5200™ Intellivision® and Atari® 400/800™.

© 1983 CBS Inc.

"Solar Fox" is a trademark of Bally/Midway Mfg. Co.
"Atari," "Atari 2600," "Atari 5200" and "Atari 400/800" are trademarks of Atari, Inc.
"Intellivision" is a trademark of Mattel, Inc.

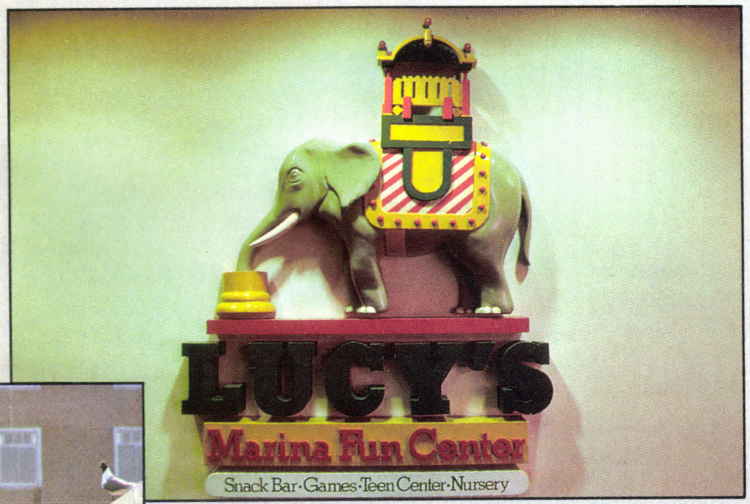
THE UNKNOWN ARCADER

Arcades of ATLANTIC CITY

Our Mystery Man plays Boardwalk

Pounding surf. Screaming seagulls. Losing money. That's what Atlantic City is all about. But amid the glitter of the "Las Vegas of the East" are some of the country's best arcades, and it was the first stop of . . . The Unknown Arcader.





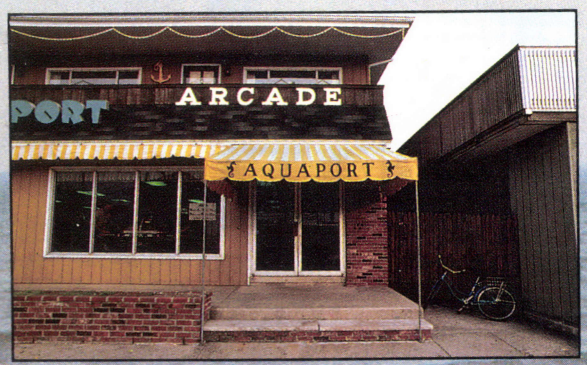








The search for the Ultimate Arcade began in Atlantic City. Left, the famous Boardwalk itself; above, Lucy's in Harrah's; top right, Aladdin's Castle in Bally's Park Place; below that, Playcade and Roger's Video Center on the Boardwalk and below, Aquaport and Jilly's in Ocean City.





Photos: Andrea Brizzi



The *EF* editors discovered the fanatic Unknown Arcader banging away at *Tempest* in a Times Square arcade, and immediately recognized that this was a man possessed. The hunch of his shoulders, the quick play of his wrists, the shock of unkempt hair set him apart from the rest. So did the purple sneakers. The *EF* hounds didn't have to look twice.

"That's the man for us," they said.

"How'd you like to go on location, kid?" asked one of the editors with a grin.

The rest is history. The Unknown Arcader has been on the road ever since, with only one purpose: to find the best arcade in the world. It's a lonely road to travel, filled only with cheap motels, self-serve gas, and Howard Johnson's salt water taffy. This is the first of his dispatches, filed from the gaming capitol of the Eastern seaboard, Atlantic City.

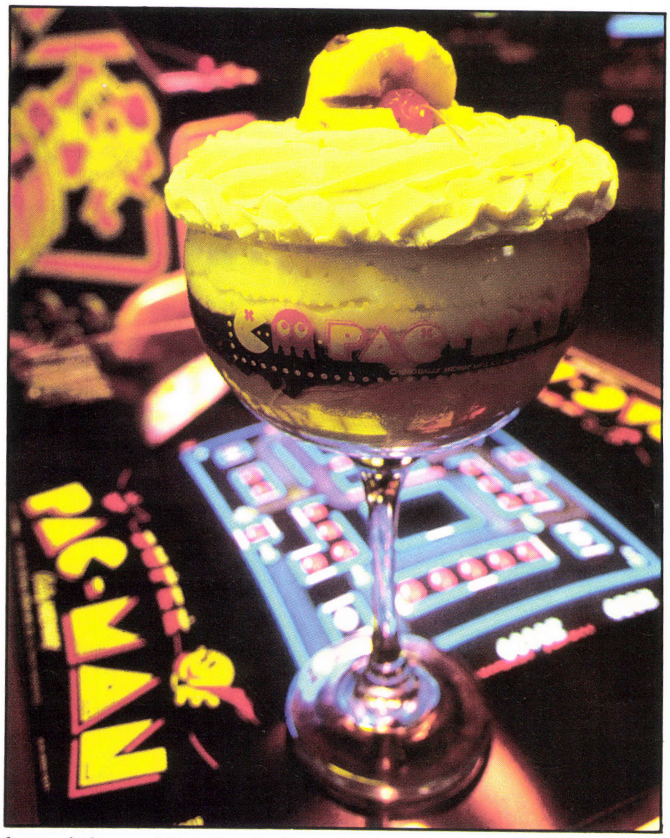
In Atlantic City everybody drives a Corvette and is named Steve. It's also a town where the economy is based on games. Huge casinos like the Golden Nugget, Caesar's and Sands rise above the ocean like giant Robot Droids. Miles of Boardwalk support dozens of arcades. Even the streets are like a game—Monopoly in particular. As you make the turn from Ventnor onto Tennessee, you feel as though you have become a marker in the grand game that runs this tourist town. Roll the dice!

"This is the best arcade in Atlantic City; the rest are scum," said Steve, the public relations guy for Lucy's Marina Fun Center, my first stop. It was okay, but quiet. Too quiet. The volume on the machines seemed to be adjusted to hospital zone levels. The lights were very bright; I slipped on my shades and started nosing around.

It was definitely high class, but elegance does not an arcade make. There were big red couches, wall-to-wall carpeting and windows overlooking an atrium. The machines were the standard fare:





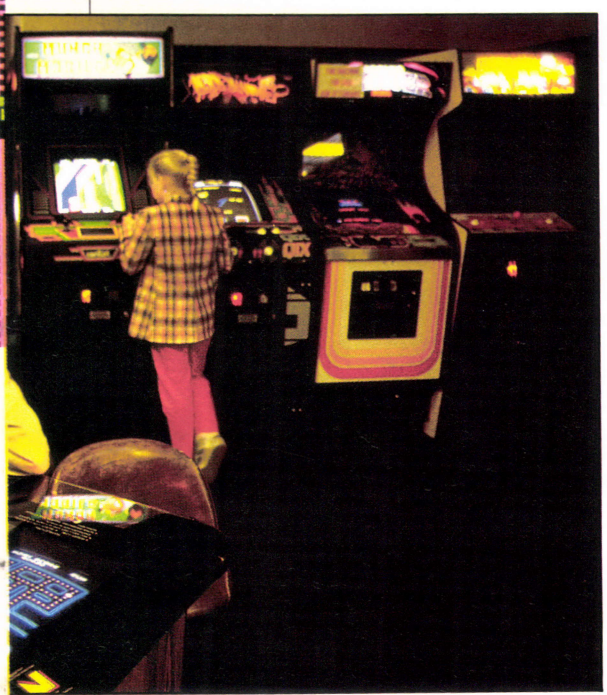




three *Pac-Man*, two *Zaxxon*, two *Joust*, *Space Duel*, *BurgerTime*, *Popeye*. There were a few oddballs like *Jack the Giantkiller* and the old Bally/Midway *Space Zap*. Adjustable machines seemed to be set at easy levels.







Counter-clockwise from above: Roger's Video Casino and Roger's again; Harrah's; A PAC-MAN sundae lets you eat the dot instead of vice versa and Bally's Park Place.

According to Steve, Lucy's is open around the clock, but the attendant is only on duty from 10 AM to 2 AM. It was now 1 PM but there was no attendant in sight. A sign on his desk read, "No abusive language or fighting. No bare feet, swimsuits. Shirts a must!"

The guy must be tough—everyone was, indeed, wearing a shirt.

The most popular machines appeared to be *Pac-Man, Jungle Hunt, Ms. Pac-Man,* and *BurgerTime.* I made a note of some of the high scores for comparison: *Donkey Kong Jr.* - 120,000; *Joust*-226,800 ; *Time Pilot*-285,700.

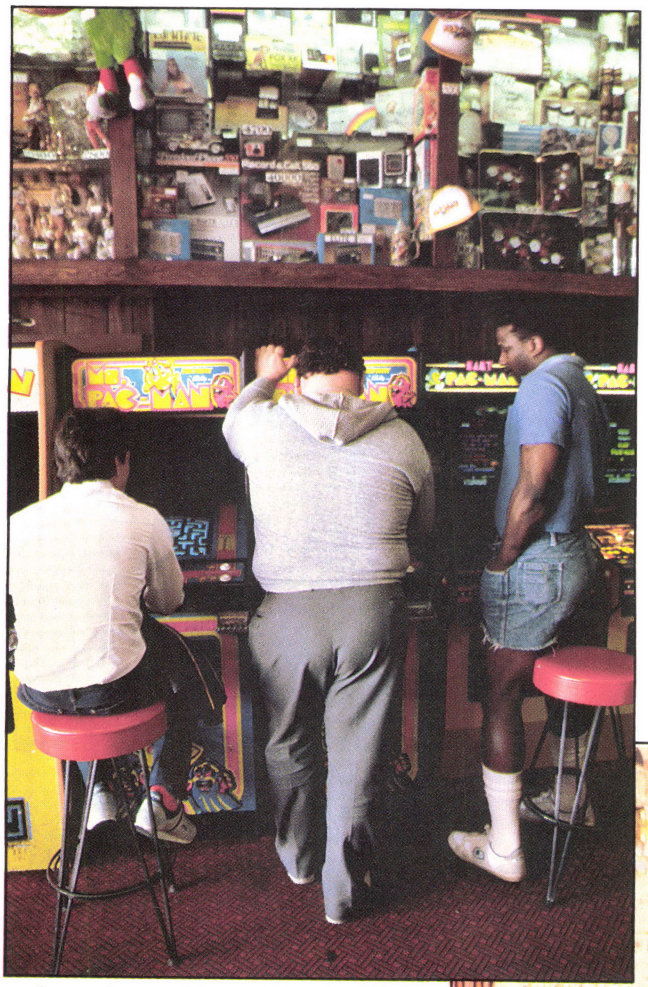
I had high hopes for my next stop—the arcade at Bally's Park Place. After all, Bally is the maker of such coin-op classics as *Captain Fantastic, Pinball Wizard* and *Pac-Man* (with Midway) so it stands to reason that it must have a knockout of a gameroom. Could it be world class?

Well . . . not bad. It's called Aladdin's Castle and is on the sixth floor of the hotel behind a couple of restaurants. It's smaller than Harrah's with 44 machines, but a lot of them were newer releases such as *Bump 'n' Jump, Kangaroo, Munch Mobile, BagMan,* and *Star Trek.* "For Sale" signs flashed in the shadows of older machines, like *Red Baron, Gorf* and *Cosmic Avenger.*

My quarters wouldn't help me here—this was a "token only" place. I sidled up to the token girl. She was a long tall sally with a soft low voice. Her name was Johanna.

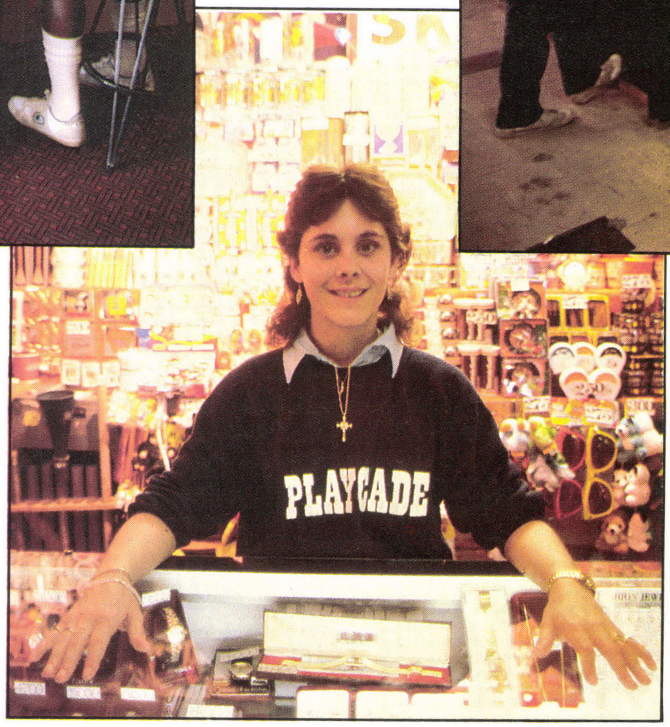
Johanna pointed out the most popular machines: *Ms. Pac-Man, Baby Pac-Man* and *Joust.* Her personal favorite, though, was *Centaur.* I felt a flutter in my heart as I watched her demonstrate her expertise. This babe was a pro. Too bad this place is only open to hotel guests. I knew a lot of broken ar-

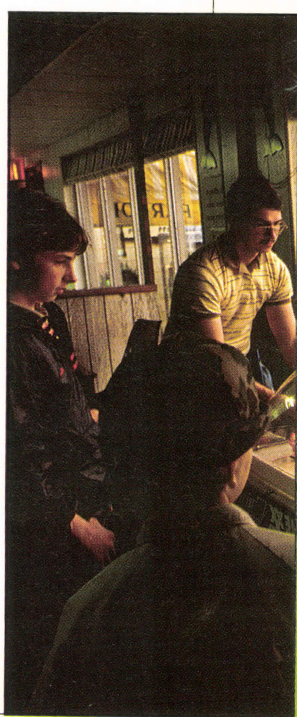






MS. PAC-MAN machines get a workout at Playcade (left). Toni runs the prize booth at Playcade (below) and prides herself on keeping out "rug-rats".





caders who could use Johanna's tender loving coaching.

Cruising for high scores (*Joust*-224,750; *Baby Pac-Man*-566,760) I noticed a little guy in a surgical smock beating the pants off his *Q*Bert* opponent. (No dress code here, but I assumed, pants were a must.

"What's up, doc?" I opened casually. It turned out the guy was no doctor at all, but a 20-year-old professional gambler named Steve. Steve liked to unwind on *Q*Bert* between sessions at the blackjack tables. He boasted that he had made $7,000 in the last two days but had lost $2,000 of it.

"I once spent $25 playing *Space Invaders*," I said. Steve was not impressed.

On the way out, I stopped at the hotel ice-cream parlor and found that *Pac-Man* sundaes were on the menu. Dreams of sharing one with Johanna drifted in my head, but, no—I had a mission.

Advance token to Boardwalk. The most famous boardwalk in the world. Gulls circled overhead and the surf pounded as I glided through the crowds of young Turks and geriatrics. Two mechanical clowns beckoned from the windows of Roger's Video Casino. Beyond the cybernetic bozos, 100 (count 'em) machines in a room the size of an airplane hangar.

From the look of the crowd, I judged that these were the local kids who couldn't get into the hotel arcades. The manager, Gary, kept an eye on the place while slinging fries at the snack bar next door. Gary explained that the place was also popular with the construction workers in the area.

The changemakers, Steve and Steve, showed UA the operation. As they rounded the corner, UA caught his breath. There, trilling away happily were a dozen machines he had not seen anywhere else in South Jersey so

far. There was *Xevious, Zoo Keeper, Food Fight, Make Trax, The Pit,* and *Mission X* (out of order). While he gawked, delivery men brought in a sit-down *Sinistar*. I checked out some of the high scores: *Millipede* - DEW 233,384 ; *Tempest* - PAK 922,755; *Baby Pac-Man* - 692,370, the highest so far.

Retracing my steps to the entrance of Roger's Video Arcade, I stumbled across the Steves uncrating *Sinistar* and asked, "By the way, who's Roger?"

"The guy's a legend," Big Steve said solemnly. Little Steve nodded devoutly and added, "It's a rags to riches story." But it was more a butter to burger story. Roger started with a butter company, then built up an empire of six arcades, and now owns four Wendy's franchises. The Steves obviously respected Roger's ability to turn coin. I left them kneeling beside the new *Sinistar* and boogied down the Boardwalk to Playcade.

Playcade looked like a Taiwanese warehouse. Beach balls, knick-knacks and stuffed animals hung from the walls and ceiling. A booth at the back had more prizes. Playcade was big on Draw Poker and Blackjack machines.

Winners of these games received tokens they could exchange for everything from inflatable mermaids to answering machines.

According to Ray, the changemaker, the most popular machines were *Pac-Man* (still the sovereign dot), *Xevious* and *Donkey Kong*. *Front Line* and *Pole Position* were a couple of their newest machines. *Sinistar* and *Time Pilot* seemed to be set at slightly harder levels than at the other arcades. High score on *Baby Pac* was LEE 851,490 and *Millipede*, JON 222,620.

The prize booth was run by Toni, a feisty high school senior with silver earrings and a "Playcade" sweatshirt. Smiling, Toni ex-

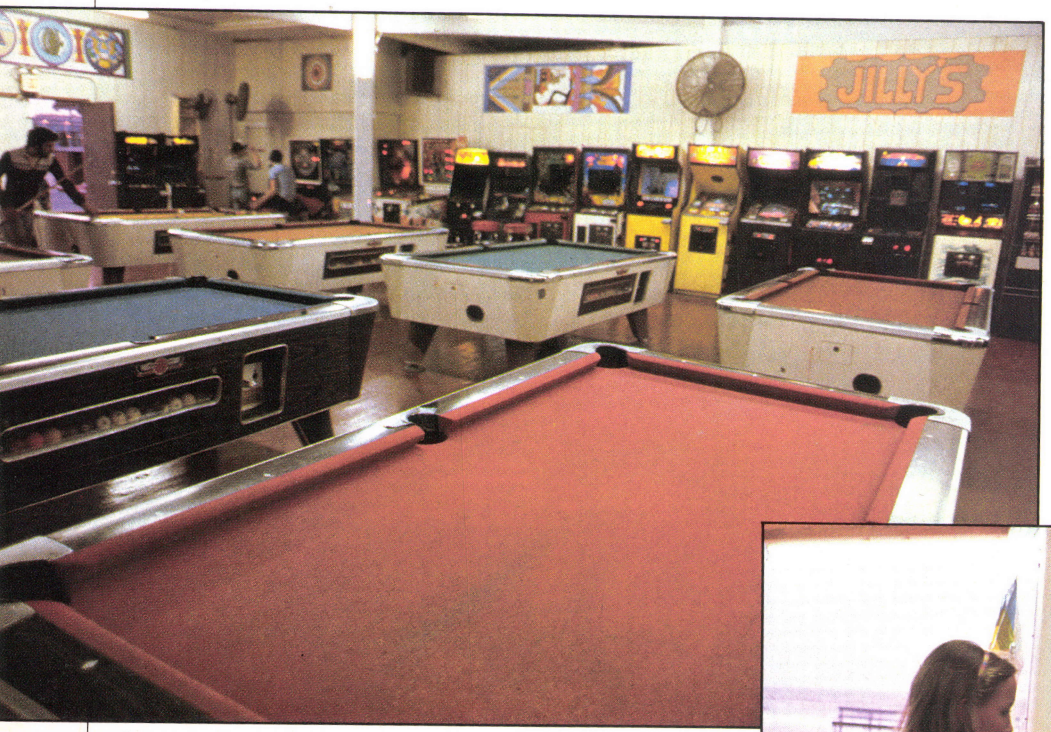






Fun Spot, top left, is next door to Playcade, and once attracted the Broadway star Pearl Bailey. Aquaport, above and left, is in nearby Ocean City. The current craze is for CHEXX, the table-top hockey hit.







Jilly's Arcade in Ocean City is "as close to perfect" as any the Unknown Arcader has seen on his travels.

plained what made Playcade such a great place. "We don't put up with the aggravation like some of the other places. If there are a bunch of grubby rug-rats out to cause trouble, we get rid of them. We don't run that kind of joint. We have *nice* prizes and *nice* people." The biggest prize she ever gave away, she said, was a Timex Sinclair computer.

Your Way, Jose

There was a healthy rivalry between Playcade and the arcade next door, Fun Spot. Jose, one of Toni's admirers, worked at Fun Spot and I got strong-armed into making an unscheduled stop there. Jose was hard to refuse; he looked as though he could wrap one hand around my chest if he wanted to. But it was worth it. Though the place was more spartan than Playcade, it had newer machines, like *Bubbles, Food Fight, Mappy, Tutankham, Bump 'n Jump, Wacko* and *Zookeeper*. There were also plenty of poker machines as well as Grandma's Prophesies, Wheel of Love, and some pinball faves (*Hyperball, Black Hole*).

Jose boasted that Pearl Bailey had once come to Fun Spot, but I couldn't find her initials anywhere. I did, however, find the following high scores: *Pole Position*—JIM 47,250; *Millipede*—VP 233,419; *Baby Pac-Man*—(a very sorry) 376,750; *Galaga*-114,230; *Donkey Kong Jr.*—44,300.

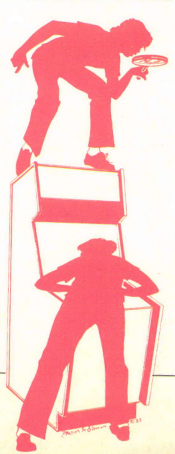
Enough dawdling—I had plenty more stops on this paper route. I hustled back to my heap, parked amid an armada of Corvettes, and headed down to Ocean City for a different view of the Jersey Shore.

Ocean City is the kind of drowsy coast town where the seashell museum is a big attraction. It's just across the inlet from Atlantic City, but for the serious arcader, it's worth the trip. Instead of big hotels, there are cottages and boarding houses, and though the kids in the arcades are pretty tough, they're mostly locals and they keep a protective eye on their home turf. You'd never have to worry about getting your pocket picked in Ocean City—just your pride when you check out some of the high scores.

Aquaport Arcade at the corner of Asbury and 34th was well-equipped, but had a small town feel. Plaster seahorses and dolphins hung on the driftwood walls. Middle-of-the-road rock'n'roll competed with the clacking of *Chexx*, the tabletop hockey hit. A skinny, freckle-faced kid of around 14 was creaming his opponent, and recanting a play-by-play as he went along. His handle was MJT and he also had the fourth, fifth, seventh and eighth highest scores on *Sinistar*.

I checked out the action: *Popeye, Pengo, Zoo Keeper, Super Zaxxon, Pole*

Continued on page 69



VIDEO GAME HALL OF FUN

Vote for your favorite computer games

Out of the way, Oscar. Eat your heart out, Emmy. Here's the Hall Of Fun. Last month we asked you to vote for your favorite video games to be inducted into the Video Hall Of Fun. Now you computer gamers can have your turn. The Video Hall Of Fun ceremonies will be part of the Electronic Fun Expo to be held in New York this fall. Don't delay! Read the rules below and send in your ballots!

The first Video Game Hall Of Fun awards ceremony will be held in New York in November, to coincide with the Electronic Fun Expo to be held at the New York Coliseum (sponsored by your favorite magazine). We've chosen a number of categories to give awards in, and we've chosen a number of nominees for those awards. But it's up to you to make the final choice.

Turn the page and you'll see our Hall Of Fun ballot. Just check the game in each category you think is most deserving of a permanent place in game history. Did we leave out your favorite game? Just write in your choice on the line provided and check the box. With so many computer games on the market, we'll honor not one but *three* games in the Arcade Action group. So choose three from that category and one from each of the others.

Our top award—Most Fun—is entirely up to you. We just couldn't decide which of all the many great games available should even make up the nominees. To be eligible, a game must have been released since June, 1982. We know it's hard, but please choose just one game.

And since one award deserves another, we'll hold a random drawing among all the ballots we receive. The top prize: A trip to New York for the Electronic Fun Expo and the awards banquet! So be sure to fill out your name, address and phone number in the space provided.

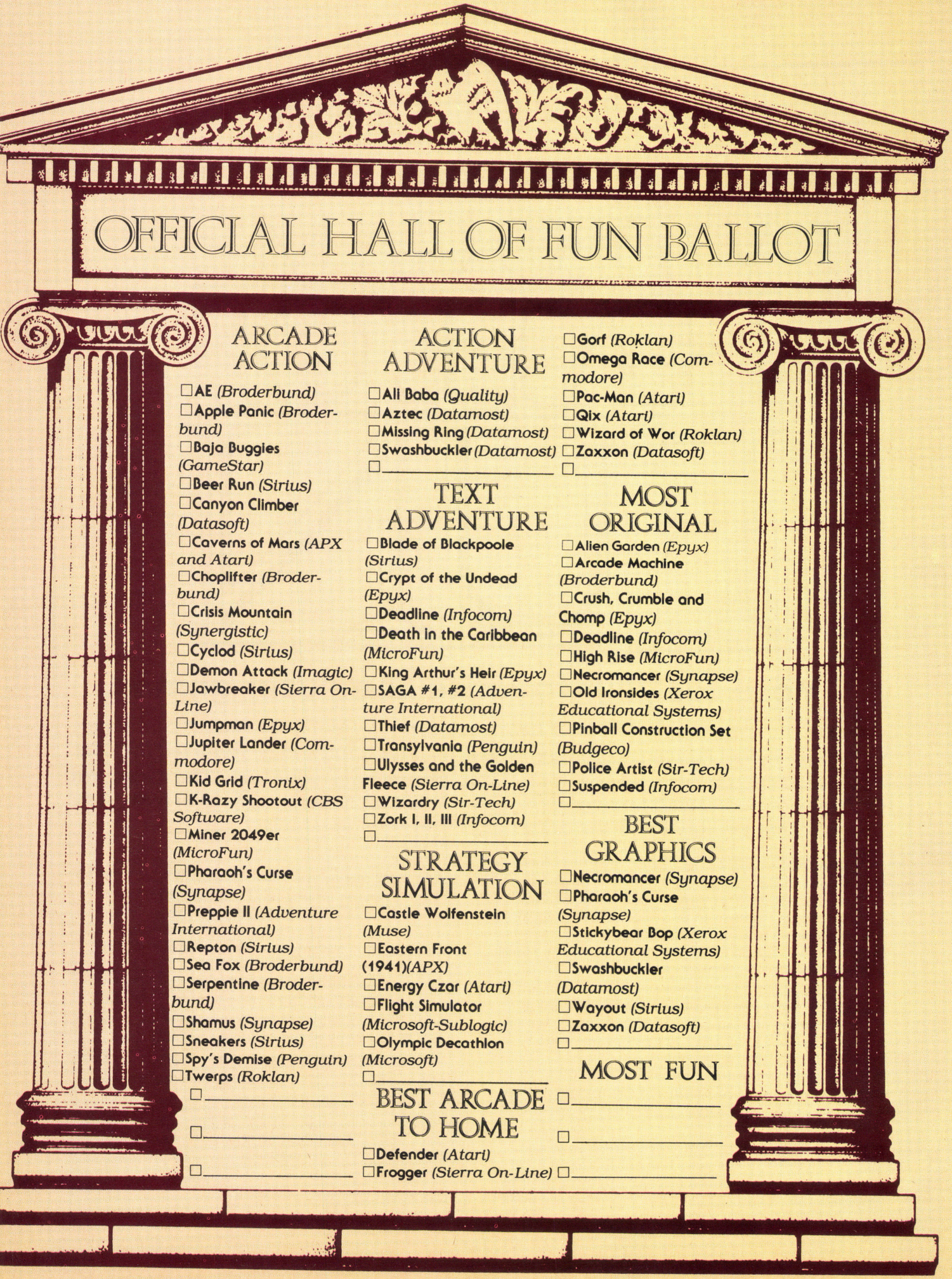
Get your ballots in by the end of September. Mail them to Hall Of Fun, 350 E. 81 St., New York, NY 10028. If you don't want to rip up your issue of *Electronic Fun*, a copy of the ballot is acceptable.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

TELEPHONE _____



OFFICIAL HALL OF FUN BALLOT

ARCADE ACTION

- ☐ **AE** *(Broderbund)*
- ☐ **Apple Panic** *(Broderbund)*
- ☐ **Baja Buggies** *(GameStar)*
- ☐ **Beer Run** *(Sirius)*
- ☐ **Canyon Climber** *(Datasoft)*
- ☐ **Caverns of Mars** *(APX and Atari)*
- ☐ **Choplifter** *(Broderbund)*
- ☐ **Crisis Mountain** *(Synergistic)*
- ☐ **Cyclod** *(Sirius)*
- ☐ **Demon Attack** *(Imagic)*
- ☐ **Jawbreaker** *(Sierra On-Line)*
- ☐ **Jumpman** *(Epyx)*
- ☐ **Jupiter Lander** *(Commodore)*
- ☐ **Kid Grid** *(Tronix)*
- ☐ **K-Razy Shootout** *(CBS Software)*
- ☐ **Miner 2049er** *(MicroFun)*
- ☐ **Pharaoh's Curse** *(Synapse)*
- ☐ **Preppie II** *(Adventure International)*
- ☐ **Repton** *(Sirius)*
- ☐ **Sea Fox** *(Broderbund)*
- ☐ **Serpentine** *(Broderbund)*
- ☐ **Shamus** *(Synapse)*
- ☐ **Sneakers** *(Sirius)*
- ☐ **Spy's Demise** *(Penguin)*
- ☐ **Twerps** *(Roklan)*
- ☐ _____
- ☐ _____
- ☐ _____

ACTION ADVENTURE

- ☐ **Ali Baba** *(Quality)*
- ☐ **Aztec** *(Datamost)*
- ☐ **Missing Ring** *(Datamost)*
- ☐ **Swashbuckler** *(Datamost)*
- ☐ _____

TEXT ADVENTURE

- ☐ **Blade of Blackpoole** *(Sirius)*
- ☐ **Crypt of the Undead** *(Epyx)*
- ☐ **Deadline** *(Infocom)*
- ☐ **Death in the Caribbean** *(MicroFun)*
- ☐ **King Arthur's Heir** *(Epyx)*
- ☐ **SAGA #1, #2** *(Adventure International)*
- ☐ **Thief** *(Datamost)*
- ☐ **Transylvania** *(Penguin)*
- ☐ **Ulysses and the Golden Fleece** *(Sierra On-Line)*
- ☐ **Wizardry** *(Sir-Tech)*
- ☐ **Zork I, II, III** *(Infocom)*
- ☐ _____

STRATEGY SIMULATION

- ☐ **Castle Wolfenstein** *(Muse)*
- ☐ **Eastern Front (1941)** *(APX)*
- ☐ **Energy Czar** *(Atari)*
- ☐ **Flight Simulator** *(Microsoft-Sublogic)*
- ☐ **Olympic Decathlon** *(Microsoft)*
- ☐ _____

BEST ARCADE TO HOME

- ☐ **Defender** *(Atari)*
- ☐ **Frogger** *(Sierra On-Line)*
- ☐ **Gorf** *(Roklan)*
- ☐ **Omega Race** *(Commodore)*
- ☐ **Pac-Man** *(Atari)*
- ☐ **Qix** *(Atari)*
- ☐ **Wizard of Wor** *(Roklan)*
- ☐ **Zaxxon** *(Datasoft)*
- ☐ _____

MOST ORIGINAL

- ☐ **Alien Garden** *(Epyx)*
- ☐ **Arcade Machine** *(Broderbund)*
- ☐ **Crush, Crumble and Chomp** *(Epyx)*
- ☐ **Deadline** *(Infocom)*
- ☐ **High Rise** *(MicroFun)*
- ☐ **Necromancer** *(Synapse)*
- ☐ **Old Ironsides** *(Xerox Educational Systems)*
- ☐ **Pinball Construction Set** *(Budgeco)*
- ☐ **Police Artist** *(Sir-Tech)*
- ☐ **Suspended** *(Infocom)*
- ☐ _____

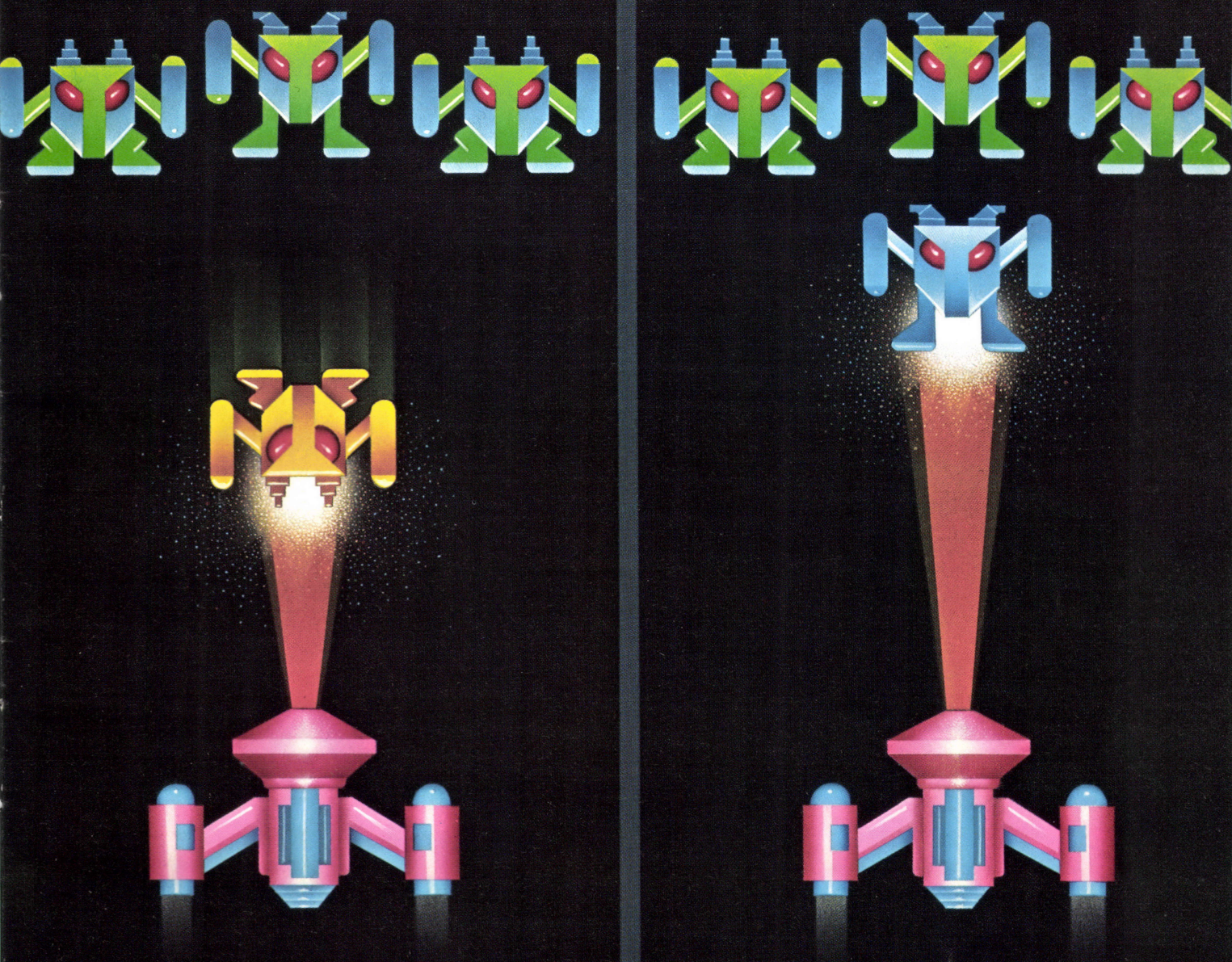
BEST GRAPHICS

- ☐ **Necromancer** *(Synapse)*
- ☐ **Pharaoh's Curse** *(Synapse)*
- ☐ **Stickybear Bop** *(Xerox Educational Systems)*
- ☐ **Swashbuckler** *(Datamost)*
- ☐ **Wayout** *(Sirius)*
- ☐ **Zaxxon** *(Datasoft)*
- ☐ _____

MOST FUN

- ☐ _____
- ☐ _____
- ☐ _____

© 1983 Atari, Inc. All rights reserved. *Trademark of Bally Midway Mfg. Co. licensed by Namco-America, Inc. †Trademark of Sears, Roebuck and Co.



Which player is about to score with flying colors?

Better learn fast. Here comes Galaxian* from Atari®.

Pilot to co-pilot. Galaxian invaders are approaching your home. And they're only from Atari for use with the ATARI® 2600™, Sears Video Arcade† systems, and the ATARI 5200™ SuperSystem.

These Galaxians look, sound, and act no different than the Galaxians you've battled in the arcade. They swoop, dodge, and fire with equal cunning. So you have to know your stuff.



Like the player on the left. He's about to hit a flying yellow Flagship for 150 points. But his opponent, on the right, will score only 30 points for hitting the stationary blue Drone. Tough luck, rookie.

If you want to know even more about which Galaxians to hit, hit the stores for Galaxian.

ATARI®

A Warner Communications Company.

Roll it over, BEETHOVEN!

Top scores of the video game composers



Was Beethoven an avid video gamer? He did write the theme for Smurfs and Kangaroo. And Johann Sebastian Bach wrote Dracula's coffin music. And the "heart theme" from Beauty and the Beast is by Tchaikovsky. What follows is a short course in music appreciation for the dedicated video gamer, complete with up-to-date explanations of how the great composers wrote scores for high scorers.

By George Kopp

Beethoven's diary is a storehouse of information. Take the following entry: "Vienna, May 18, 1809. Scored 186,792 on *Defender* today, a full 4,532 points more than that wimp Schubert. Had great idea for new symphony, too. I see a little blue man in pointy cap hopping through woods on way to rescue a little blue girl. First movement will be allegro moderato smurfetto. Will be very cute, not like boring old *Fifth Symphony* which has been done to death."

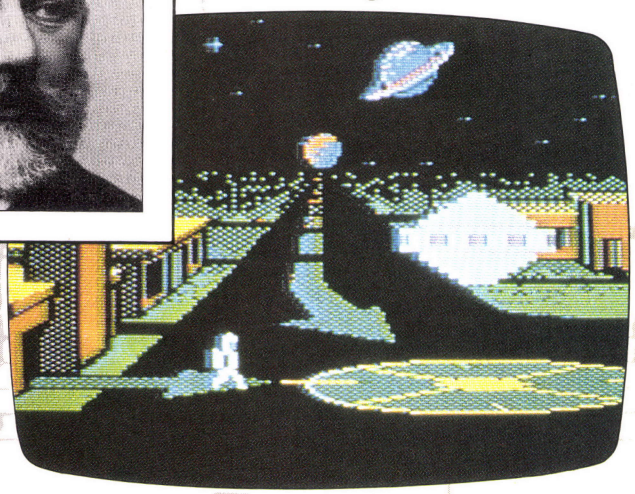
This entry would strike musicologists as improbable, were it not for the fact that *Smurf*'s theme is from Beethoven's *Sixth Symphony*, the Pastoral. In fact there is an amazing amount of so-called classical music on video games, and the experts are rewriting musical history to account for it all.

Another *Smurf*-related puzzle was solved in a recent interview with the great American composer Aaron Copland. "My most famous work," said Copland, "is the ballet *Appalachian Spring*, especially the clever things I did with the Shaker hymn tune *A Gift To Be Simple*. The choreographer Martha Graham had decided to have her dancers painted blue and hopping all over the stage, but the night before



Sculpture by Adam Kurtzman Photograph by Dalrymple





TCHAIKOVSKY'S 1812 OVERTURE is given a fine performance in ASTRO-CHASE. It's perfect music to destroy Earth by.

opening she screamed, "They're all too tall!" We almost cut the number, but she restaged it, making the dancers simple farmers. It took Coleco to discover the true meaning of this piece."

Promenade All

Naturally it's harder to trace the origins of video game music when the composer is dead. One company, Imagic, has its own resident music historian, Viola da Gamba, to vouch for the authenticity of Imagic game themes. Take the music in *Tropical Troubles* that plays when Clarence picks up a handkerchief. This has always been known as the "promenade" theme from Modest Mussorgsky's *Pictures at an Exhibition*. This is a work in several sections, each one depicting a painting. Between sections the "promenade" theme plays, supposedly representing the composer walking from picture to picture.

"Not so," says da Gamba. "The whole promenade business was cooked up by Mussorgsky's press agent. The real story is this: The gallery where the exhibition took place was infested with mice. (That was before the Revolution. Now it's infested with rats.) By order of the Czar, hundreds of cats were brought in to deal with the mice.

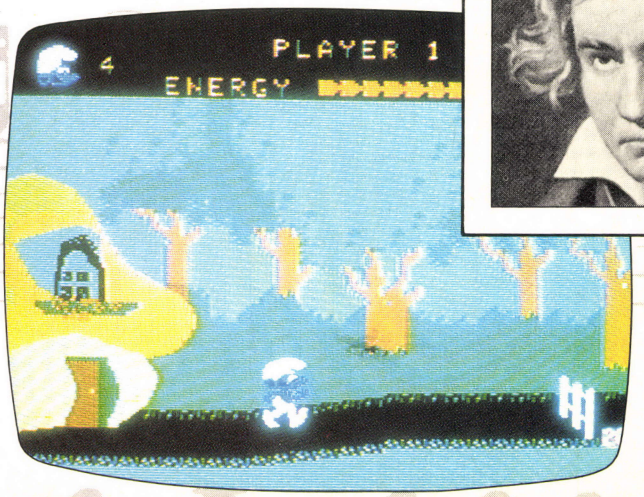
Mussorgsky had terrible allergies—dust, borscht, but mainly pussycats. Between pictures he was forced to blow his nose constantly, and he called his bridge music the 'handkerchief theme'. It's about time someone is performing it properly."

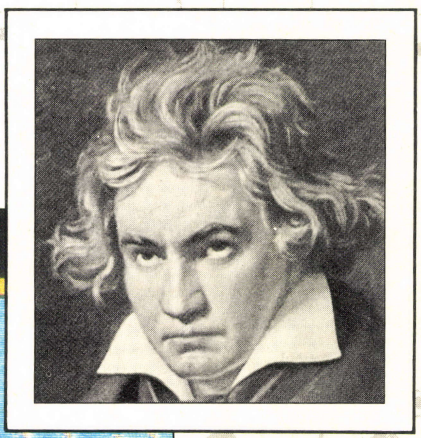
Another piece of Russian music, the "Love Theme" from Tchaikovsky's *Romeo and Juliet*, turns up in *Beauty and the Beast* when Buford catches a heart. According to da Gamba, the choice was based on careful research.

"Tchaikovsky's patroness was a Russian noblewoman married to a tyrant. He was hopelessly in love with her nonetheless, and wrote *Romeo and Juliet* to express their plight, so like the two lovers in the play. The night he finished the piece he brought the manuscript to her, but it was the Feast of St. Otis and all the elevator men were in the Crimea for a holiday. So Tchaikovsky climbed the balconies outside her St. Petersburg condo. In appreciation of his exertions the noblewoman threw him a box of chocolates left over from Valentine's Day. Tchaikovsky caught the box and got 50 points. He lost anyway."

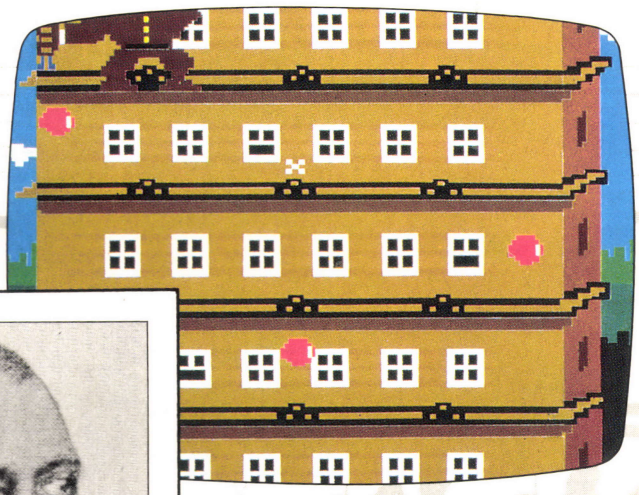
Beauty and the Beast also plays Scott Joplin's *Maple Leaf Rag*. "The connection here is well known," says da Gamba. "*Maple Leaf Rag* was first performed by Joplin at Marvin's Gardens on the Roof in St. Louis where he was employed as the entertainer. Every night he played his rags. Finally Marvin bought him a piano and business picked up considerably."

There is heated debate over *The Ride of the Valkyries* by Richard Wagner. While the music is played on Imagic's *Ice Trek*, a much more detailed version is heard on Mattel's *Sub Hunt*. Says da Gamba, "The Mattel use of that piece is totally unjustified. *The Ride of the Valkyries* has nothing to do with submarines, it's all about temperature. Wagner wrote the piece when he had a terrible cold and

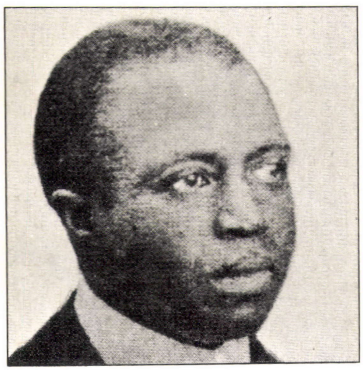




BEETHOVEN'S SIXTH SYMPHONY accompanies Smurf. Physicians now think the arcades contributed to Beethoven's deafness.



MAPLE LEAF RAG by Scott Joplin is performed several times in Imagic's BEAUTY AND THE BEAST. It's one of the earliest examples of American roof music.



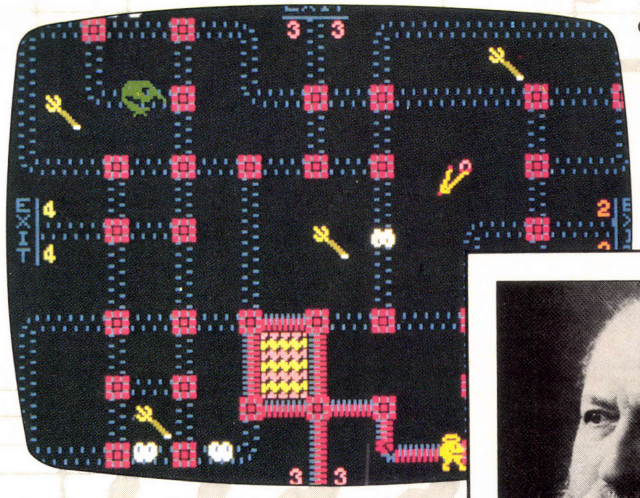
fever. The original manuscript contains numerous marginal notes like, 'Ach, I'm freezing' or 'Oy, I'm burning up!' Clearly this is music for the arctic."

A Mattel spokesman hotly denies this. "Sure he had a cold, but what about the marginal note 'Gor blimey, I feel like my head is underwater!' *Ride of the Valkyries* is definitely a high-pressure type piece of music." Both companies are at a loss to explain why Wagner put the piece in his opera *Die Valkyrie* to accompany the Valkyries' ride to the gods' castle in Valhalla. "Maybe Brunhilde had a cold," guesses da Gamba.

For martial music, Tchaikovsky's *1812 Overture* is even more popular than *Ride of the Valkyries*. The computer game *Astro Chase* from First Star features a stirring rendition of this piece. While most people think the piece dramatizes the defeat of Napoleon at the hands of the Russians in 1812, a letter from Tchaikovsky to his publisher has come to light proving this was not the case.

"I am terrified of death," Tchaikovsky wrote, "so I am writing a piece set in the future. I will call it the *2012 Overture* and it will depict global warfare. I'll use the national anthems of France and Russia to save time. Falling off that building in St. Petersburg hasn't helped my dizzy spells one bit, let me tell you."

One day the Soviet leadership may claim to have invented the video game, just as they claim to have invented television and the helicopter. Although the assertion may sound preposterous there is a bulk of musical evidence they may use in support. Besides Tchaikovsky and Mussorgsky, even Russian folk songs have insinuated themselves into games.



The Penguin Software creation *Spy's Demise*, for example, plays several tunes of old Russia, including *Katiusha* and the popular ditty *Vniz po Matushke po Volge* which means Down Along the Mother Volga. If you've ever wondered what happens down along the Mother Volga, you'll be happy to know that heavy weather is a-rising and o'er the waves one can see nothing but a little sailboat with one white sail—faintly. It takes six verses to tell this charming tale.

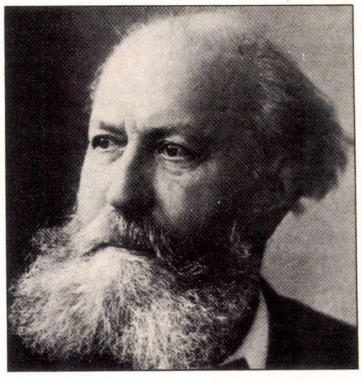
Beethoven And Beer

The Russians may even claim to have invented Johannes Brahms on the basis of *Spy's Demise*. His *Hungarian Rhapsody* is heard in the game, even though Russia didn't invent Hungary until 1956, long after Brahms had finished rhapsodizing about that country or anything else.

Great genius that he was, Beethoven had a much wider range of interests than little blue men. In 1806 the talk of Vienna was The Great Exposition of the Australies, a travelling fair from Melbourne at which vast quantities of beer were consumed. When not drinking beer, the Viennese could see such wonders from down under as koala bears, wallabees, platypuses, cucabura birds and emus.

All Vienna was captivated with the kangaroo. When one local jumped into the kangaroo cage and received a sharp left jab, it was

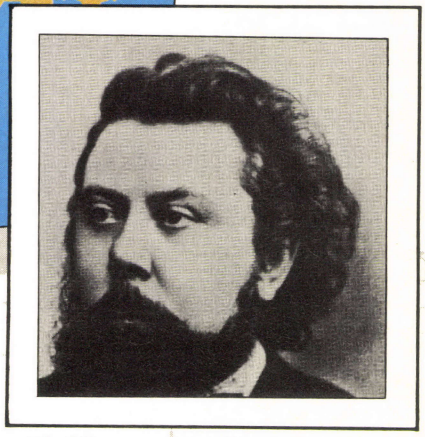
GOUNOD'S FUNERAL MARCH OF THE MARIONETTES is the opening theme of PEPPER II. The composer also wrote the opera FAUST, but he didn't write the opera first.



decided to hold the world's first exhibition of kangaroo fisticuffs. Dressed in their finery, the Hapsburgs and all their court got ringside seats. Beethoven was commissioned to write the music for the event, and what came to be known as his Turkish March received its first performance. "The only reason the piece is called *Turkish March*," says a biographer, "is that Beethoven wrote it in a Turkish bath. He always called it *Marcheroo*." You can hear it, of course, as the opening theme to Atari's *Kangaroo*.



MUSSORGSKY'S PICTURES AT AN EXHIBITION becomes the "handkerchief theme" on TROPICAL TROUBLES. The composer, says a historian, was allergic.

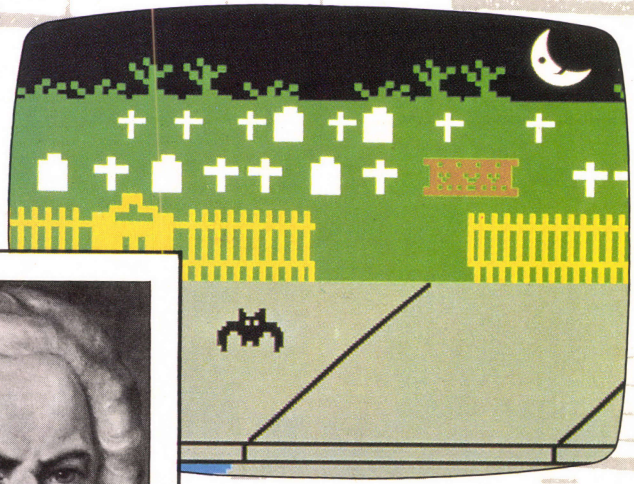


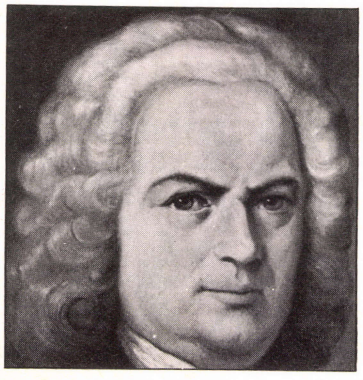
Tailor Made Music

(*Oh, Susanna*, by the way, was originally an Australian folk song called *Waltzing Susannah*. The verse went, "Oh, Susannah, your dingo's not for me/For my boomerang has lost its twang/In Sydney by the sea, etc.")

Meanwhile in France, a young tailor named Charles Gounod was dreaming about becoming a composer. Every evening he'd go to his favorite eatery, A la Frais Dis-Je Coq (The Sign of the Fresh How Shall I Say It Rooster). Here he would dream of a creature that would zip up all the zippers in his tailor shop so he could spend all his time writing music. One of the pieces he penned in the restaurant was later titled *The Funeral March of the Marionettes* in one of those twists of fate music history never seems to get tired of. Most of us know it by the name of the restaurant, which in English has been shortened to "Alfred Hitchcock." It took Coleco to give the piece its proper setting with the zipper creature, and because the piece was dedicated to Gounod's father ("pour Pere") the creature was named Pepper.

J.S. BACH provides the coffin music for DRACULA. Bach himself had no interest in video games, but he did have 20 children who fought over whose turn it was.





Johann Sebastian Bach had no time for video games. He was too busy raising his 20 children and churning out cantatas like nobody's business. Naturally his house was a bedlam and his wife frequently lost her temper with Johann. "Coping with 20 screaming kinderlein is bad enough," she would scream, "but the racket you make on that organ is enough to wake the dead!" So on the top of his *Toccata in D Minor* Bach wrote the words, "For the greater glory of God," which he wrote on all his music. In smaller print he wrote, "This will wake the dead and I wish my wife were among them." Again, Imagic jumped at the clear connection to *Dracula* and used the *Toccata* to bring the vampire out of his coffin.

Treble In Paradise

Bach's influence over video game music is immense. One of the fine features of *Mousetrap* is the music on the second screen which repeats over and over again, driving you to the brink of smashing the ColecoVision into your TV set. This music is written along the lines of a popular style of Bach's day, the ground bass. In the ground bass, a melody in the bass part is repeated over and over again while the treble parts do whatever they feel like.

How this came about is a tribute to the ingenuity of Western man. In playing the organ, the bass notes are played with the feet on a series of pedals. An organist of the day,

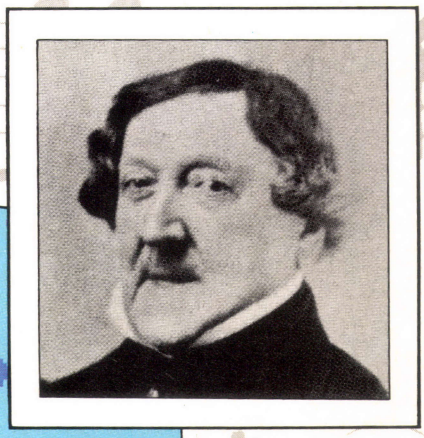
Wilhelm Maustrapp, suffered constantly from cramps in the legs, so he invented a machine to play the pedals for him. Unfortunately, the machine could only play the same notes over and over again. Try as he might, he was unable to build a better "Maustrapp," as the machine was called. Still, it was so popular that composers began writing music tailored to the machine. While no "Maustrapps" are left, ground bass music lives on, especially in the aptly named *Mousetrap*.

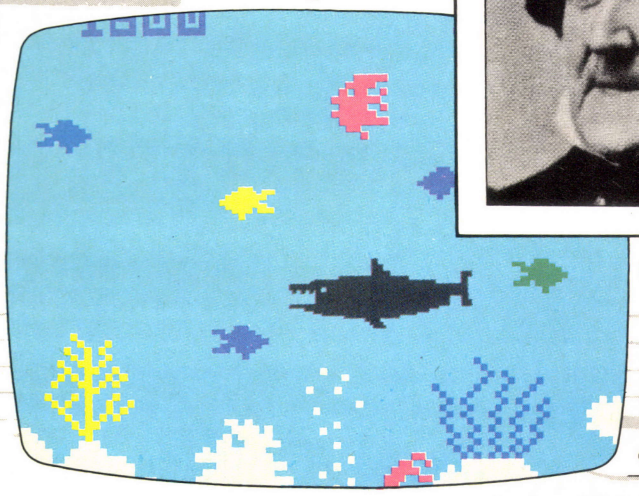
Fish Story

Of course, much of the music written for video games is written today by unknown geniuses. Usually the music sounds like the game it's for. Sometimes, though, a composer comes up with a piece so off the wall that you're convinced it was written for another game. A case in point is Mattel's *Shark! Shark!*.

This is not what you'd call a lively game—its pace is the lugubrious tempo of life at 40 fathoms. So after playing an intense round of fish-eat-fish, you're a little taken aback by the theme music which would be more appropriate to a game called *Whirling Dervishes*.

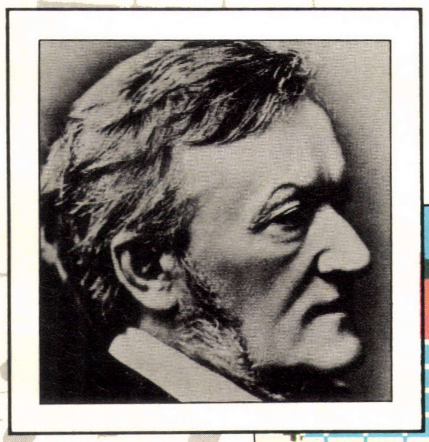
At last this mystery has been cleared up, and once again the answer is found in the lives of the great composers. Rossini, famous for the *William Tell Overture*, was notoriously lazy. His manager frequently had to lock him up in a room the night before an opera opening to get him to finish the piece. His most successful opera, *The Barber of Seville*, had no overture the night of performance. As the manager pulled out his hair Rossini calmly produced an overture from one of his flop operas, or floperas, and the show went on.



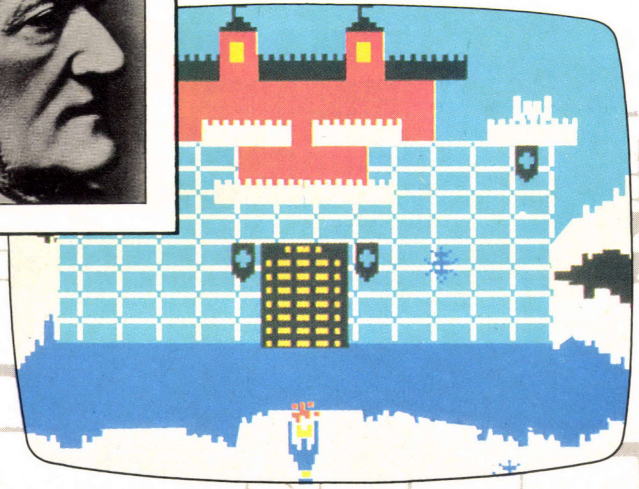


Did ROSSINI write the theme to SHARK! SHARK!? There is no evidence that he did, but there is no evidence that he didn't either.

Years later Rossini remembered that he had not written an overture to *Barber of Seville*. Just for fun he sat down at his piano and started to play. The rest is history. The piece disappeared for a hundred years, and when Mattel discovered it had no theme music to *Shark! Shark!* they decided to find the lost Rossini overture. When he heard the music, the president of Mattel remarked, "It's no *William Tell*, but it will do for a game about fish."



WAGNER wrote the RIDE OF THE VALKYRIES for one of his operas. How it found its way into ICE TREK is the subject of several interesting and pending lawsuits.



Lost Chords

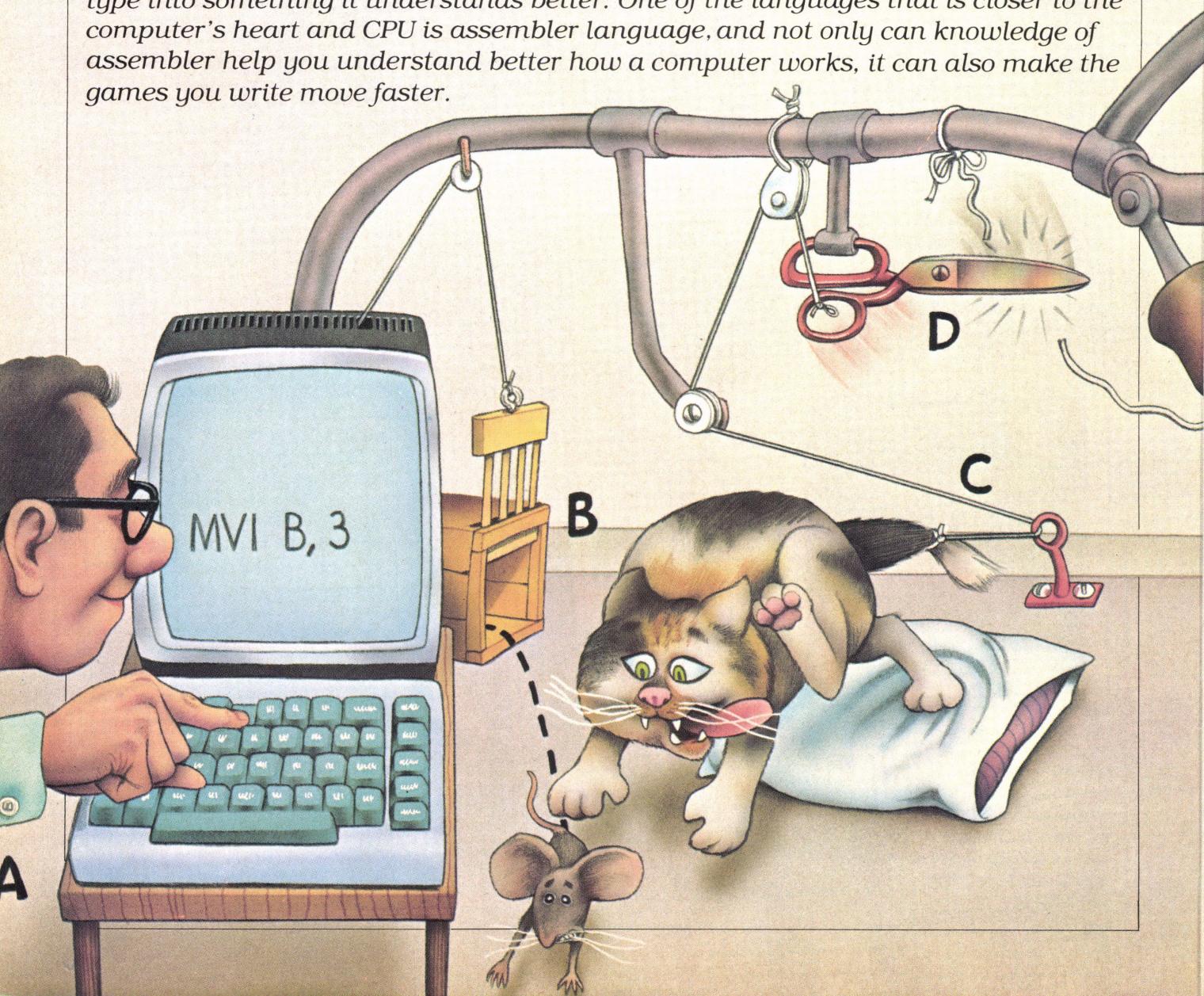
Not surprisingly, there is not total agreement as to the authenticity of the alleged Rossini overture in *Shark! Shark!* Many specialists, in looking at the manuscript, say it is an obvious forgery. "The use of the Flair pen indicates that the work does not date from the late nineteenth century," says a professor at Juilliard. "Besides, it doesn't even sound anything like Rossini."

As video games become an even more important part of our culture we can expect further disclosures about the true origins of their musical accompaniments. Hand in hand with these revelations will come further controversy, and so it goes. Still unsolved, for example, is the mystery of the *Blue Danube Waltz* on *Eggomania* or Beethoven's *Ninth Symphony* on *Pengo*. History, though, was not rewritten in a day. □

CRACKING the code

Assembler language: It's not as hard as it looks

Computers are polyglots. This means that they speak many languages. BASIC is one of them but it's slow because the computer first has to translate everything you type into something it understands better. One of the languages that is closer to the computer's heart and CPU is assembler language, and not only can knowledge of assembler help you understand better how a computer works, it can also make the games you write move faster.



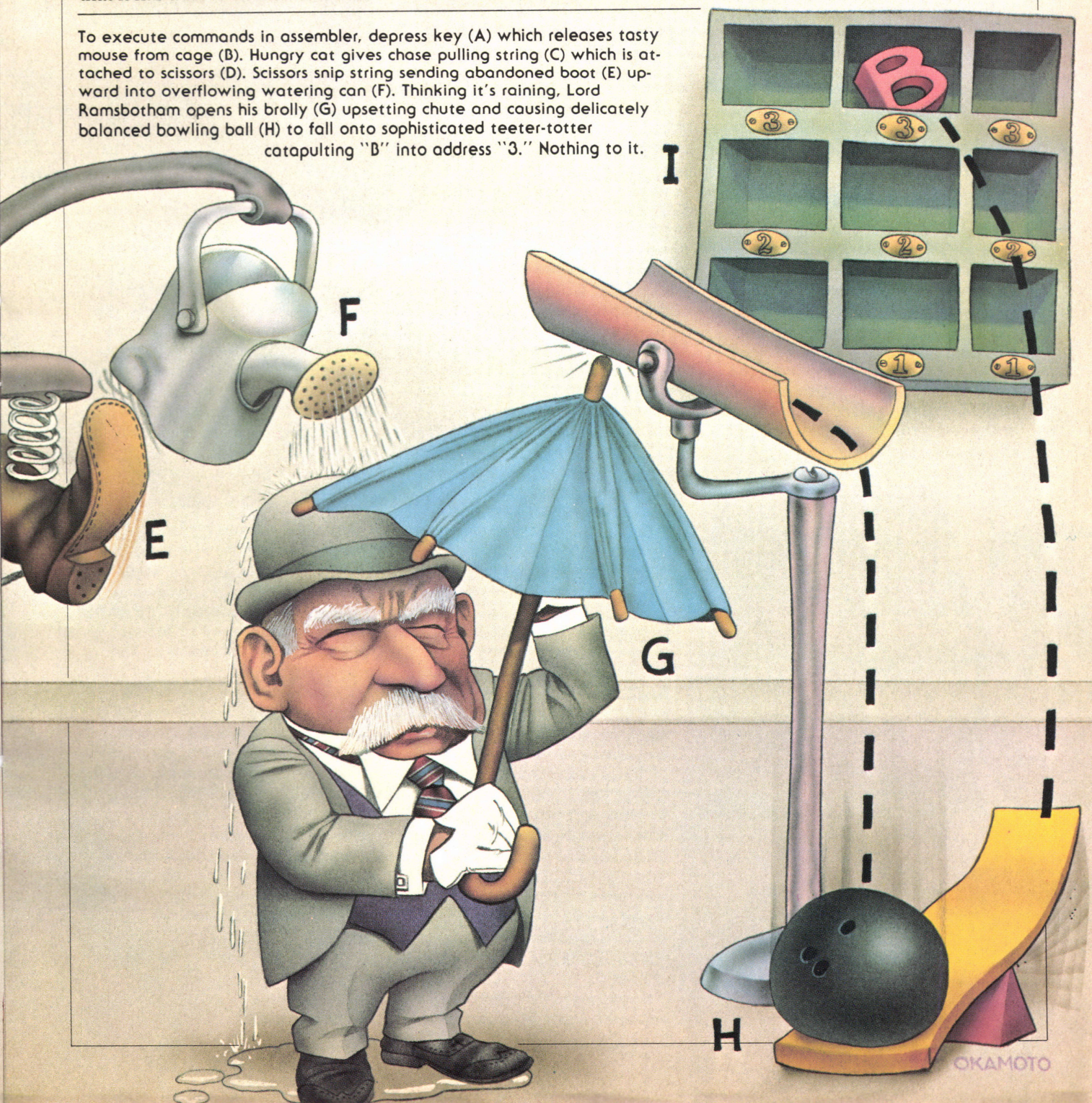
By Dan Azulay

Why speak to your computer in assembler language? There are over 200 programming languages around today, and some of them, like BASIC, are a breeze to learn. If you've never programmed in assembler, you've probably been told that it has a lot to do with ones and zeros—those mysterious little bits—and that you have to be some kind of mathematical wizard, probably even a confirmed nerd, to begin to understand it. This is untrue!

But why bother, when you can use BASIC? Well for one thing, by learning assembler you will learn a lot about how a computer really works. Assembler is a way of writing "machine language," the actual language of the computer. So after assembler takes you into the brains of the machine, other programming languages will be quite easy to learn.

Sound complicated? It isn't. You don't have to know about electronics to program in

To execute commands in assembler, depress key (A) which releases tasty mouse from cage (B). Hungry cat gives chase pulling string (C) which is attached to scissors (D). Scissors snip string sending abandoned boot (E) upward into overflowing watering can (F). Thinking it's raining, Lord Ramsbotham opens his brolly (G) upsetting chute and causing delicately balanced bowling ball (H) to fall onto sophisticated teeter-totter catapulting "B" into address "3." Nothing to it.

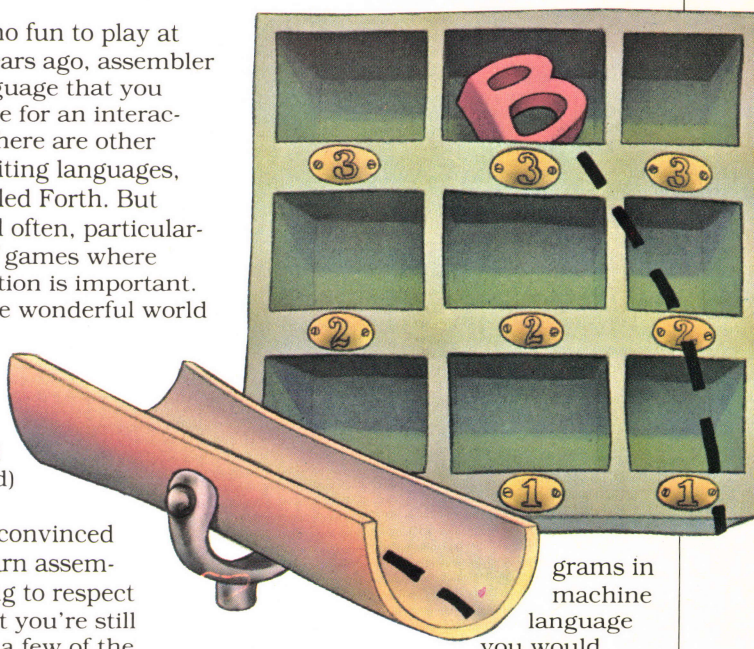


assembler. The kinds of things you have to know about a computer aren't the kinds of detailed things that a mechanic knows about an automobile. A better analogy would be photography. A good photographer knows basically how a camera works. In order to take good pictures, he knows about shutter speeds and *f*-stops and depth of field. An assembler programmer is like that kind of expert photographer, while a BASIC programmer is like someone with an Instamatic—he just pushes the button and trusts in technology to do the rest, all without really knowing how it does it.

Fast Talker

Anyway, even if you don't want to know more about computers than you have to, there's another good reason to learn assembler language. It's the best language to use when you want the computer to operate as quickly as possible.

For instance, if you wrote a complicated video game entirely in BASIC, with lots of figures on the screen all moving independently, the game might move so slowly that it would be no fun to play at all. Until a few years ago, assembler was the only language that you would want to use for an interactive game. Now there are other popular game-writing languages, including one called Forth. But assembler is used often, particularly for the parts of games where very quick execution is important. And outside of the wonderful world of video games, assembler is still widely used in the most sophisticated (and most highly paid) jobs.



By now you're convinced that you must learn assembler if you're going to respect yourself at all, but you're still wondering about a few of the details, like: What is assembler? And what is machine language? So we'll tell you.

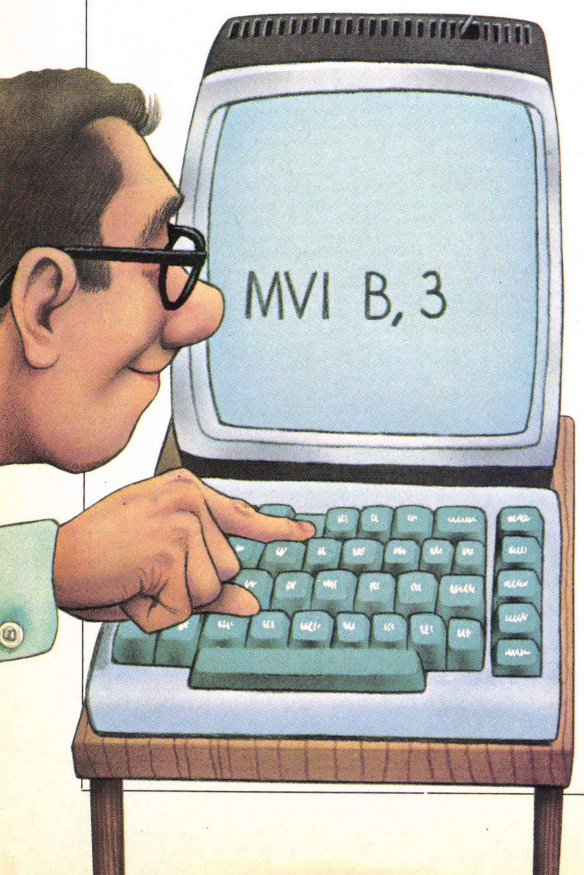
Machine language commands are the only commands the computer itself really understands. "But my computer understands BASIC!" you say. Not really. It doesn't. Not without a lot of help. If your computer lets you write and run BASIC programs, that's because it was sold to you with something called an interpreter (or something else called a compiler) that translates a BASIC program into machine language instructions. Machine language is the native language of all computers, and it doesn't look at all like BASIC. BASIC has nice English words in it like GOTO and RETURN. Machine language commands are strings of ones and zeros.

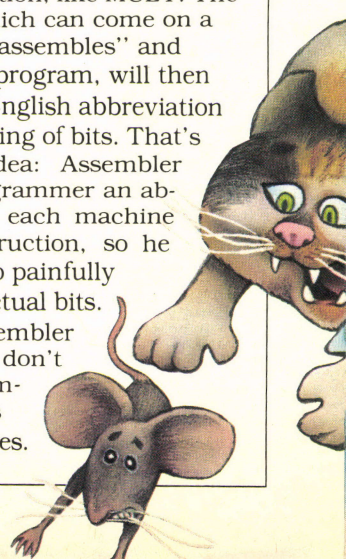
"Ones and Zeros! You expect me to learn to program in ones and zeros? Didn't I have enough trouble mastering fractions and decimals? When I want the computer to add two numbers I've got to say 00101110100111? Where's my Pascal reference guide? I'm getting out of here."

Not so fast. It's true that if you were really writing programs in machine language you would have to type in all the little ones and zeros, also known as bits, that make up each command. Worse than that, machine language programs sometimes can't be "typed" at all; they have to be entered by turning off and on switches on a computer console! As if learning to touch type weren't hard enough, now you've got to master switches!

No Ones

Assembler language is an easier way to create those annoying strings of ones and zeros. With assembler language, if you want the computer to multiply, for example, instead of typing in the sequence of bits that make up the multiply instruction, you just type in an abbreviation, like MULT. The assembler, which can come on a diskette and "assembles" and corrects your program, will then translate the English abbreviation to the right string of bits. That's the whole idea: Assembler gives the programmer an abbreviation for each machine language instruction, so he doesn't have to painfully enter in the actual bits. In fact, assembler programmers don't work at computer consoles flipping switches.





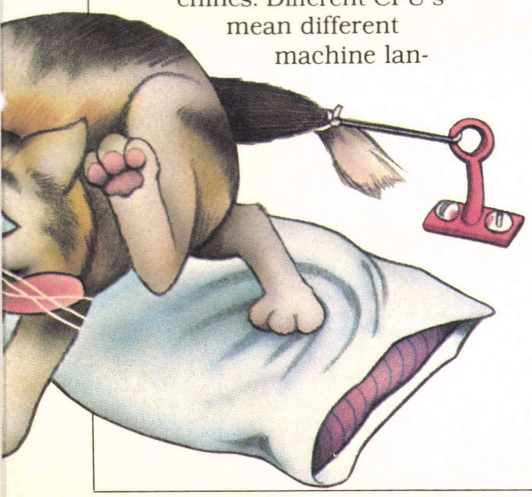
Illustrations by Michael Okamoto

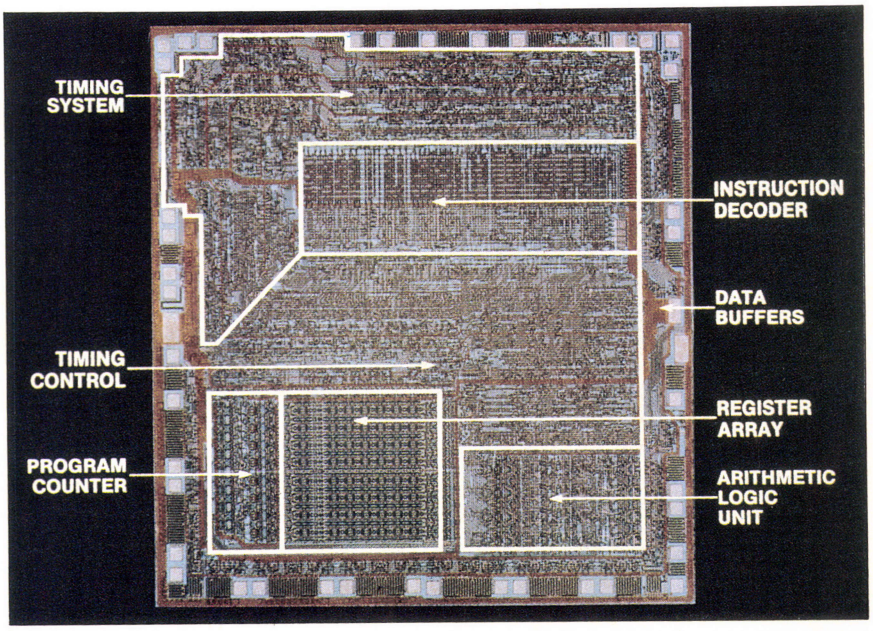
They write their programs on nice, friendly text editors just like other programmers. In running a program, the assembler takes the text and translates each abbreviation into its difficult-to-read-and-remember machine language equivalent.

"Then assembler is just like BASIC, wise guy," you might say. "The computer translates words into machine language."

True, sort of. Except that with assembler you only type in one symbol for each machine language command that you want the computer to obey. The computer will perform that single operation specified by the command and nothing more. With BASIC, each statement like LET or PRINT gets interpreted or compiled into hundreds of machine language statements before it gets executed. BASIC statements are much more powerful, because your program might not need to spell out all those additional things to perform its task adequately. With assembler you can create programs that do exactly what you want without thousands of unnecessary and time-consuming operations being executed.

There's another important difference between assembler and other programming languages. BASIC is pretty much the same on different computers. But machine language on the Atari is completely different from machine language on the TRS-80. That's because the central processing unit, or CPU, is different on those two machines. Different CPU's mean different machine language and different assembler language. But look at the bright side. The CPU on the Atari, the 6502, is also in the Apple II and the Commodore Pet. And the CPU on the TRS-80, the Z-80, is the same as the one in the Cromemco. (In addition, you access assembler language differently on each machine. Some use diskettes, others cartridges. Check your owners' manual.)





Where the action is: the Z-80® Central Processing Unit.

Z-80® photo courtesy Zilog Inc.

"You mean I've got to learn a different language for each CPU? That's too much work!"

It's not as bad as that. Machine languages are different, but the principles are the same, and that's because different computers all work similarly. As computer experts say, "If you've seen one CPU, you've seen them all."

Remember we said you've got to know a little about how a computer works before you can program in assembler? Let's look inside a typical microcomputer and see some of the things that make it tick. First of all, there's a bunch of "memory". You know, the 64K or 32K of RAM you've heard so much about. Memory is like thousands of little identical mailboxes. What's kept in those mailboxes? Well, the program that's running, for one thing. When you run a program from a disk drive or game cartridge, the program gets put in memory. All the machine language commands sit out there in memory mailboxes waiting to be delivered and obeyed. Also in memory is the data that the program needs: all sorts of numbers and letters and indicators that the programmer set up for the program to do its job.

Connected to the memory there's a CPU. The CPU is the brains, the main headquarters, starfleet command. Machine language instructions are executed inside the CPU. Each instruction gets fetched from memory when its time comes and the CPU looks at the string of ones and zeros in the instruction, and does what the instruction says. So the CPU is the part of the computer that "knows" machine language.

CPU At Work

When the CPU is obeying a program command that it got from memory, it generally uses special areas, sort of like work benches, to do the really important things that it has to do. These work areas are called registers, and they are inside the CPU. The registers are used, among other things, as places to

Continued on page 91

We'll be right back...

The making of those great game commercials

No matter how annoying commercials might be, we all have to admit that some of them are pretty impressive productions. And lately there have been quite a few video game commercials in that group. A lot of work and planning goes into the making of these game commercials. It isn't just thought up and filmed. There are technical difficulties that have to be overcome and special techniques that have to be used. EF *has chosen five of its favorite commercials and then given you the inside dope on just what goes into the selling of a game.*

By Frank Moldstad

All the tests, modifications and retests a game goes through before it reaches your local retailer don't mean that you'll want the game. You want a game because your best friend has it and he's told you what you're missing. Your best friend wanted it because he saw a TV commercial that convinced him he couldn't live without it. But even your best friend won't want a game if it's represented by a lousy TV commercial. In the real world, there are dreadful games, but there are very few lousy game commercials. The best TV game ads are fun, because after all, fun is what they're selling. Many of them are also funny and blend the elements of the game into a mini-movie.

Cream Of The Crop

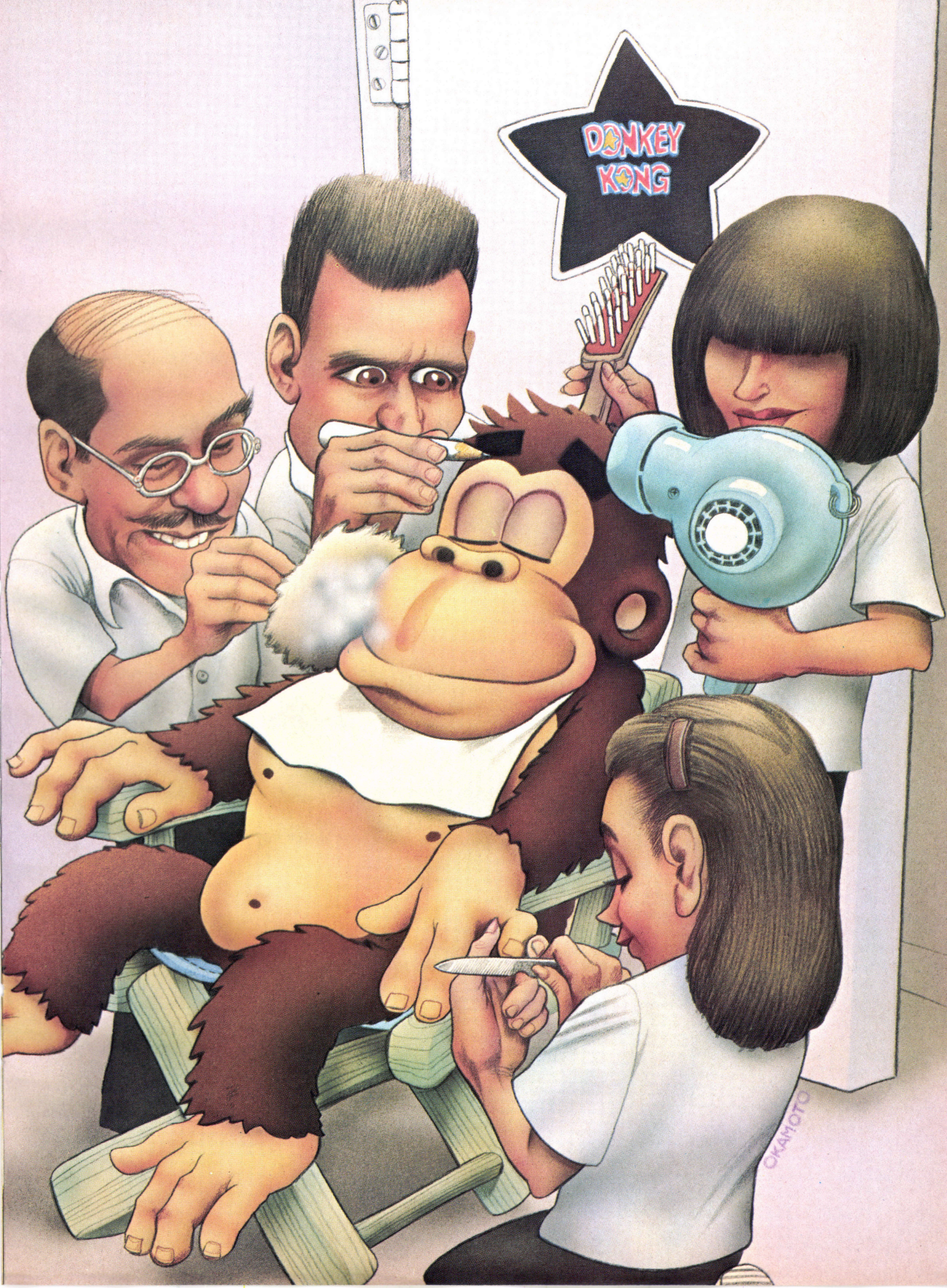
We won't try to say which game commercial is *the* best—no one would agree with us anyway. We've chosen five of the best and qualify that by saying that like our favorite games, these can change. Then we'll peek behind the scenes for a revealing look at the technical problems posed in getting game commercials to appear on your TV without being hopelessly garbled.

One of our top five is Coleco's ad for the triple threat of *Zaxxon, Donkey Kong* and *Turbo*. The vivid special effects are what make this ad, and they come as no surprise, because their creator was John Dykstra, whose talents have won him an Academy Award and an Emmy for special effects in *Star Wars* and *Battlestar Galactica*, respectively. When you play the games, you don't really have space ships flying out of the screen at you, but that's just as well—it could be dangerous. The commercial isn't really in the funny vein, but if a tense challenge is your idea of fun, then it qualifies as that.

In the mini-movie category, Telesys' *Fast Food* commercial comes to mind. What's faster than a roller-skating waitress, a short order cook or a drive-in restaurant? Why *Fast Food*, of course, and the commercial moves as fast as



Illustration: Michael Okamoto


DONKEY
KONG
OKAMOTO



you can concentrate, shifting from an *American Grafitti*-style drive-in to action on the game screen before you realize it's not a scene from the movie. In fact, when the commercial was first conceived, Telesys tried to land some *American Grafitti* footage for it, but the movie studio wouldn't bite. So, the Telesys people went on location at a drive-in with some vintage 50's cars and produced their own doo-wop salute, filming the drive-in scenes in fast motion to emphasize the game's speed.

Nail Biters

Another selection in the mini-movie category (someday these'll be collector's items), is Activision's *River Raid*. This commercial really takes the idea of a movie based on a game to heart. Scene: The control tower of a missile base. Some army-types are monitoring a river on a large screen which just happens to be showing the *River Raid* game. They're watching as a plane goes up the river. The tension mounts. The plane loses control. *River Raid*! At the end, the announcer reminds you it's only a game. What does he mean *only*?

Everybody knows *Ms. Pac-Man*, but in order to convince everybody to buy it, Atari came up with a memorable animated version of the first lady of games, with a voice that sounds like Ethel Merman's. "She's the most exciting woman I've ever met," says a high-school jock to his admiring friends in the locker room. Who is she? She's *Ms. Pac-Man*, the woman of the year, all singing, all dancing, bursting through the game screen to strut her stuff, with legs that rival Betty Grable's.

Then there's Imagic's ad for *Atlantis* which takes place in what seems to be the NASA base in Houston. An apple-cheeked alien wearing a cape with a Count Dracula collar stands behind what appears to be an electrical engineer and tells the tragic story of Atlantis—how the Gorgons flew over and destroyed every last soul in the city. At the end, the mild-mannered engineer turns to the creature and says, "I thought you said the Gorgons destroyed everyone in Atlantis." To which the beast replies "We did!", laughs maniacally and destroys the packages for both the Intellivision and Atari versions of the games.

And then there's the running gag Mattel has developed with George Plimpton . . . And then . . . And then . . . There are so many to choose from.

There. Now you've heard about some of our favorite commercials. But just because they look like they're easy to make—you get the idea, go into the studio, shoot it and then go out for an expensive dinner at Sardi's—doesn't mean they *are* easy. As you've probably guessed by now, there's a hitch—or a number of them—when it comes to shooting game commercials. Let's go behind the scenes to see why they're so tough to make.

Obviously, a game company that is advertising on TV shows you the game screen in order to tantalize you. And they want it to look as good as possible, with all the action and colors they put into the game looking bright and exciting on the airwaves. But advertising companies like to shoot commercials on 35mm film, instead of video, which creates a problem. You can't just film a TV screen. If you try, you'll get white lines running through the picture and all sorts of other problems which ruin the final cut.

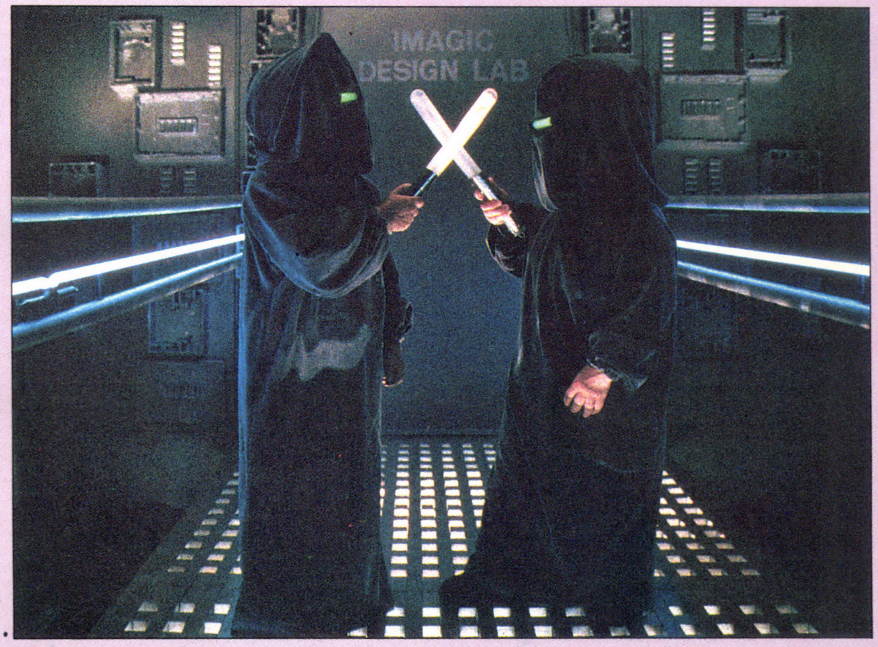
The way a TV creates a picture is by



scanning 525 lines down the screen, which takes 1/60th of a second. Film moves through a 35mm camera at 24 frames per second, but the shutter is only open for 1/48th of a second because it has to advance the next frame. So you've got an image playing at 1/60th of a second on the TV and you're filming it at 1/48th of a second with the camera. Because 1/48th of a second is longer than 1/60th of a second, if you film a game you'll get one full screen and part of another. Imagine how ludicrous it would look with *Ms. Pac-Man* about to gulp down a dot on one part of the screen while she's already eaten it on another part. Not exactly the way to convince people to shell out $30.

And there are more problems. Since film is slower than a video image, too much light is allowed in when it records a TV picture. This will throw off the colors when you film a game and, to compound the situation, you'll get a series of white lines and double exposures.

One solution to this mess is to speed the camera up to the rate at which the TV image moves. But then you can't film live action with the game action, unless you want the actors to look like the Keystone Kops. Another solution is to use a video camera, which records at the same speed as the TV images run. But that's out too. The advertising agencies prefer film because the lighting is more natural and it allows more realistic depth and latitude in the picture.



Basically, only a handful of people using jealously guarded techniques are able to solve this dilemma. One of them is Richard Goldstone, a director and owner of Richard Goldstone Productions in Los Angeles. He has worked on a number of video game commercials, including Activision's *Stampede* and *Freeway* ads.

Another is Hal Landacker, who's on the technical end as production/sound director at Burbank Studios in Burbank, CA. They've worked together and separately on many video game ads.

Because of some top-secret "black boxes" which Landacker's son, Alan, has invented, Goldstone is able to create commercials in which the actors move freely in front of the video game screen while the colors on the screen remain as vivid as the game's designer saw them.

"It's very hard to put the game on the TV screen and film somebody watching it or playing it. But in my commercials, I have somebody put their face right up to the monitor, and that's asking for trouble," says Goldstone.

How Does He Do It?

"Some techniques cut back and forth between the guy and the game, but it's more daring to have both at once," he says. How does he do it when other people have problems?

"When we developed a way to play back the game image at the same speed it is filmed, that did it," he reveals. "Hal Landacker's techniques allow us to successfully combine live actors working with a monitor that has a game on it."

Landacker's black boxes make it possible to transfer games to 24 frames per second on a 3/4-in. cassette, so they're playable on a video recorder hooked up to a TV monitor. He also color-corrects them in the process, so they look better than what you might get at home. When Goldstone films the commercial, he has to be aware of



Above left, Imagic's ATLANTIS ad; above right, also Imagic. Below, Mattel's George and Elliott.



IT'S 2019 A.D.
DEFENSE IS ON THE

It never should have happened, but it did. Robot warrior tanks, designed to be the country's ultimate defense system have gone amok. They've eluded Command Control to become the ultimate aggressor.

Out there, a battalion lies in wait. Stalking you. Calculating your next move. Ready to out-think, outmaneuver you in a game where you can run but you can't hide.

From inside the cockpit of your tank, the video camera scopes a vast, barren plain.

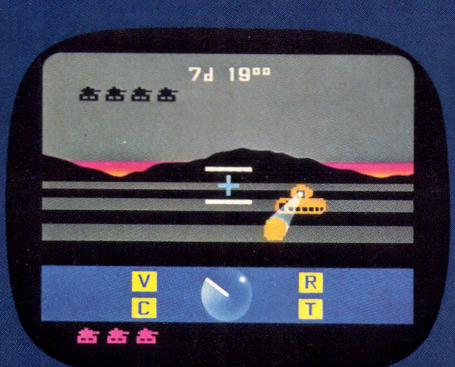
Suddenly, there's a blip on your radar screen. Your hand twitches nervously, ready to fire your Laser Cannon.



ROBOT TANK™

THE MILITARY'S SYSTEM RAMPAGE.

Within moments, a blanketing fog sets in. Torrential rain obliterates the terrain. Your Damage Control Sensors show a crippling hit.



It's a battle against time. And against all odds.

But you must go on. Because there's no escape from Robot Tank's relentless pursuit.

Robot Tank™ from Alan Miller, the designer of Starmaster.™ For the Atari® 2600.™



For use with the Atari® 2600™ Video Computer System.™ Atari,® 2600™ and Video Computer System™ are trademarks of Atari, Inc. Also for use with Sears Tele-Games® Video Arcade.™ Tele-Games and Video Arcade™ are trademarks of Sears, Roebuck and Co.

©1983 Activision, Inc.

ACTIVISION®

WE PUT YOU IN THE GAME.



Jungle Hunt: I'll drop you a vine.

JUNGLE HUNT ♪♪

Atari/Atari VCS

By Michael Blanchet

Tarzan had a knack for making life-threatening situations appear as harmless as a marshmallow. Whether he was swinging on a vine or paddling upstream with a pack of hungry crocodiles in hot pursuit, the King of the Jungle always managed to conquer every obstacle in his path without any apparent effort or exertion. Tarzan was never scared. In fact, I doubt his muscular physique ever shed one bead of sweat in the line of duty.

In *Jungle Hunt* from Atari you don't sweat much either and it's precisely because there is no perspiration factor that the game misses the mark. What good is triumph if there's no struggle?

Like its coin-op counterpart, Atari's *Jungle Hunt* consists of four different sequences, culminating in the showdown between you and a band of headhunters. According to the storyline set forth by the Taito coin-op, your mission was to save a girl that was about to become the savages' next meal. Unless I missed her, no such prize awaits the Atari Jungle Hunter.

In the opening scene, your man (dressed like Dr. Livingston) must swing across the jungle on a series of ten vines. This little test of skill barely qualifies as such. In fact, it's so easy even neophyte gamers will find this part of the game a cinch. From here the action shifts to your basic African river, which naturally is teeming with hungry crocodiles. Here again I failed to find any reasonable challenge. If you choose to confront the beasts, you can brandish your knife with a tap of the action button. Unlike the coin-op *Jungle Hunt*, this business of stabbing crocs is a very unexacting science. Some of the crocs that appear well out of reach fall dead to the almost invisible blade. Others can kill you with a simple swipe of their tail. If anything, this sequence is inconsistent.

In comparison to the journey you undertook to reach the final scene, the headhunter showdown is quite difficult. Well, it's hard at first anyway. After a little practice though, this sequence too proves to be a piece of cake.

I'll give Atari credit for one thing. They've done a commendable job of cramming all four of the original *Jungle Hunt* screens into one tiny cartridge. What they left out, though, was the challenge. I don't know about you, but I don't enjoy engaging in a contest in which the final outcome is practically decided right from the start.

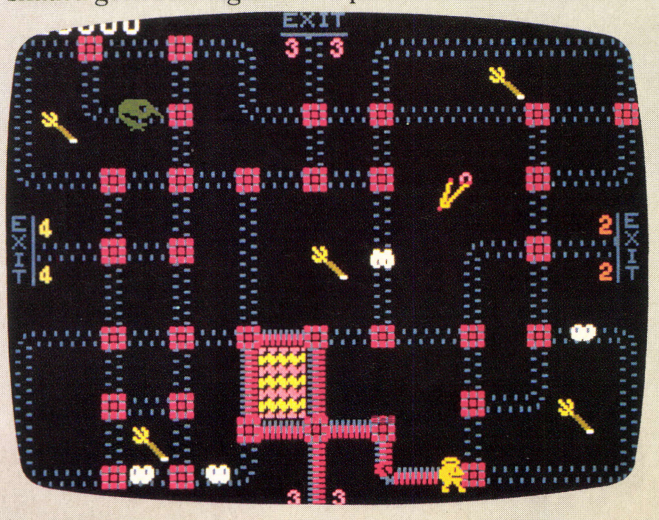
Once the river's far shore is reached, you'll find yourself up against a rather feeble onslaught of boulders. As Darth Vader would say, "This is all too easy." Just jump over the little ones and duck under the big ones. To this day I still can't figure out why the big stones bounce higher than the little ones do.

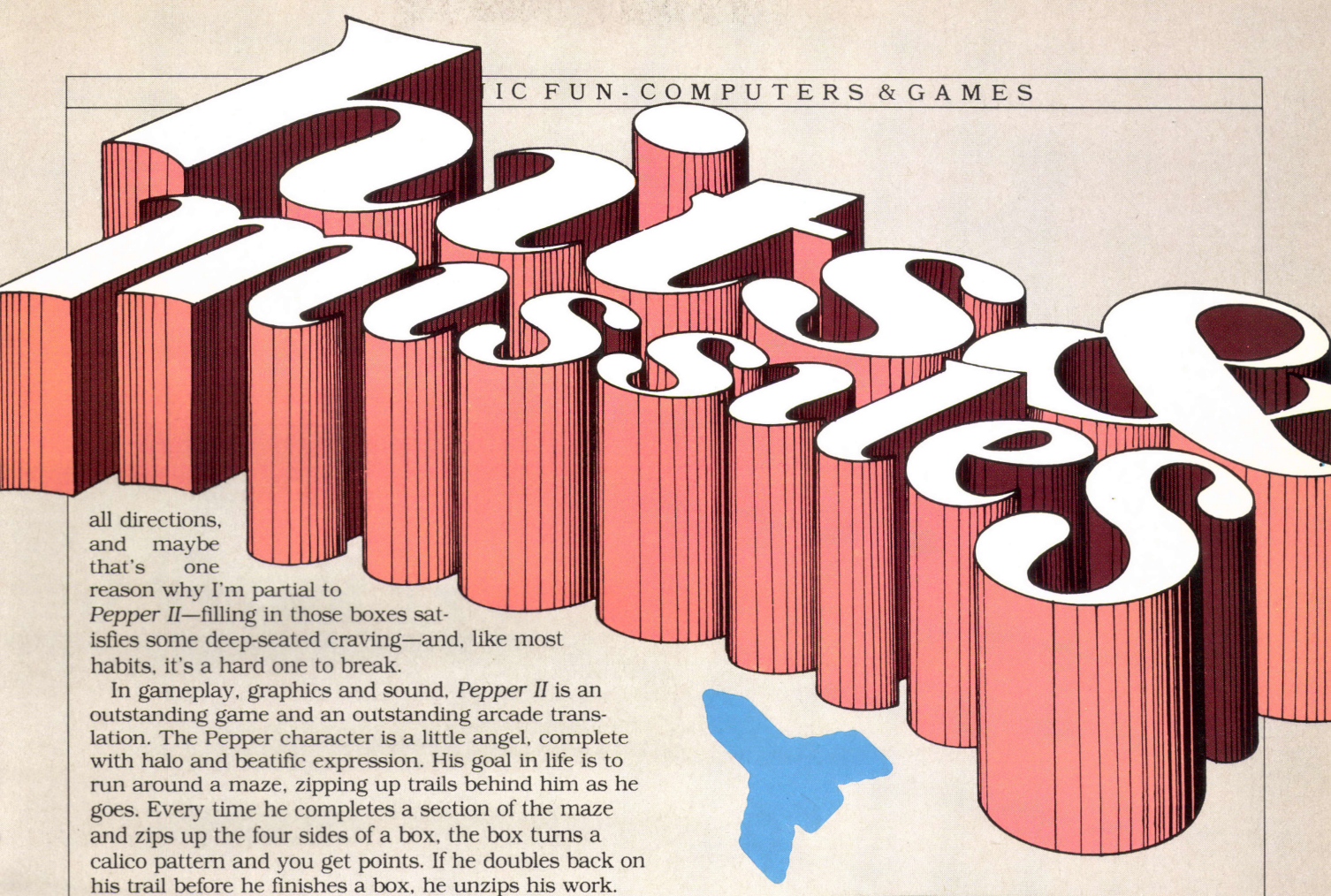
PEPPER II ♪♪♪♪

Coleco/ColecoVision

By George Kopp

Psychologists say doodles can reveal your personality. Some people draw faces, some circles, some intricately shaded geometric figures. I'm partial to boxes stacked in





all directions, and maybe that's one reason why I'm partial to *Pepper II*—filling in those boxes satisfies some deep-seated craving—and, like most habits, it's a hard one to break.

In gameplay, graphics and sound, *Pepper II* is an outstanding game and an outstanding arcade translation. The Pepper character is a little angel, complete with halo and beatific expression. His goal in life is to run around a maze, zipping up trails behind him as he goes. Every time he completes a section of the maze and zips up the four sides of a box, the box turns a calico pattern and you get points. If he doubles back on his trail before he finishes a box, he unzips his work.

Pepper also has his pursuers, the Eyes. Their job is to guard the unzipped sections of the maze and generally make life rough for poor Pepper. Pepper can get back at them by completing a square with a pitchfork in it—this turns him into a devil, allowing him to go on an Eye-eating rampage.

There are four mazes in each level. You get bonuses for filling in boxes with light bulbs, daggers, scissors and a host of other random objects in their centers. Points increase the further you go. After the first level some mazes tend to periodically become invisible.

Always save a pitchfork square for last. You might need devil power to get you safely into the next maze.

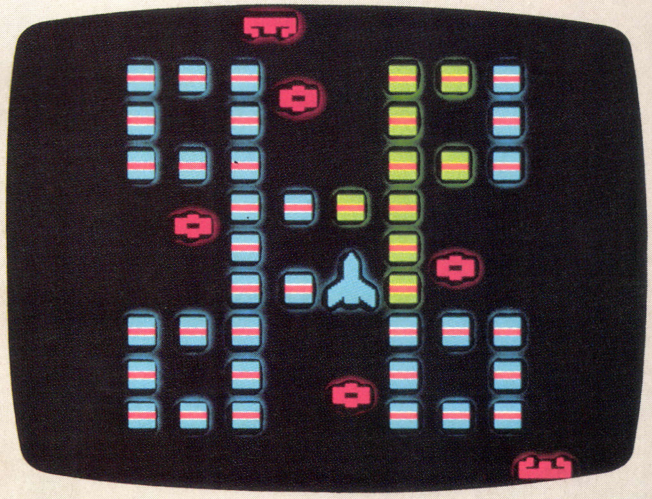
SOLAR FOX ★★★★

CBS Electronics/Atari VCS

By Noel Steere

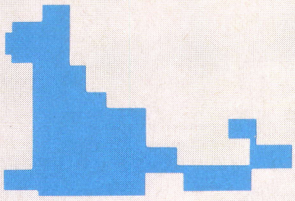
Here's an interesting mix: a space game whose object is to run over dots. And, as if this weren't strange enough, there's no shooting. None. These are the elements of *Solar Fox*, a new game from CBS, adapted from an arcade game which never made it. You pilot a spaceship that must run over and remove all of the solar cells in the screen. There are two sentinels, one on top and one on the bottom, which shoot at you.

There are many unique features in this game. One of them is the skip-a-rack feature. In every rack (screen), there is a bar on the bottom left. If you complete the board before the bar disappears and before you're destroyed, you will skip the next rack. The best part is you'll get points for the rack you skipped.



Then there's the Challenge rack. It comes after every sixth rack. In this one there are no sentinels but you must complete the screen before the bar on the bottom disappears. If you fail to do this, you receive no points for that round. If you succeed, you not only receive points for the round, you also get a letter from the secret word which contains six letters. If you should collect all six letters, unscramble them and spell the correct word, you'll find the hidden secret of the Solar Fox. Send the correct answer to CBS Electronics and they'll reward you. How is still unknown.

Don't stay near the top or the bottom unless you're forced up there to collect a solar cell. The sentinel can zap you like that if you hover in those two places for too long.



SHOOTIN' GALLERY ★★★

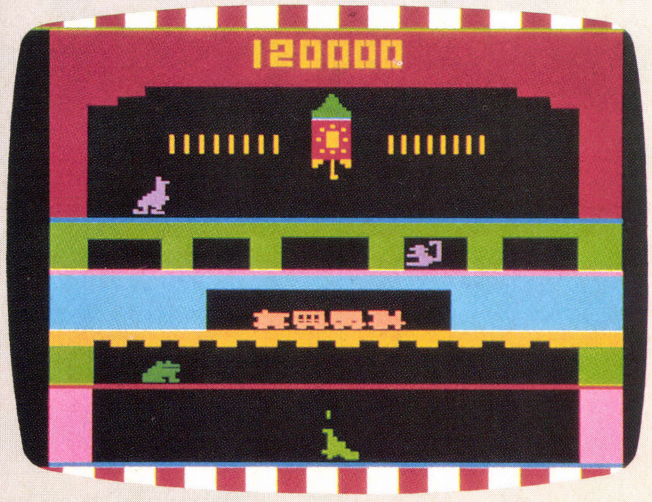
Imagic/Atari VCS

By Suzan D. Prince

It says it right there on the label: "Ideal for ages nine and under." Then why am I—a grown-up, married woman—having so much fun playing *Shootin' Gallery*? Because this cartridge is an absolute delight for kids of all ages.

Just like when you get to the boardwalk, the four-variation, single player game nets you thousands upon thousands of points for striking the right combination of targets. My favorite version, number four (the toughest), is called the Hotshot Challenge. In it you've got to hit the clock with your joystick-aimed pistol before all the spots on its face disappear. If you don't, the cuckoo will pop out and grab four of your 64 allotted shots every few seconds. A train appears only if you hit the fast-moving monkey who glides from one side of the screen to the other. Finally, targets speed up at the 20,000, 40,000 and 60,000 levels.

Now here's the thing: This cuckoo will swallow up your bullets faster than birdseed if you let him, so you have to keep constant vigil under the clock. Meanwhile, if you don't hit the ape you won't get a shot at a train, which is chock full of bonus points. To complicate



things still further, you can't hit the monkey while the pistol is poised directly under the clock. What to do? Elementary, my dear Watson. Shoot the clock immediately, move the gun slightly left or right to hit the monkey. Then grab a quick swipe at the train and go right back to the clock. Repeat for a big score.

Try for the monkey, then the train's caboose, several times during each play—those two targets contain the highest number of points.



VANGUARD ★★★★

Atari/Atari 5200

By Phil Wiswell and Bernie DeKoven

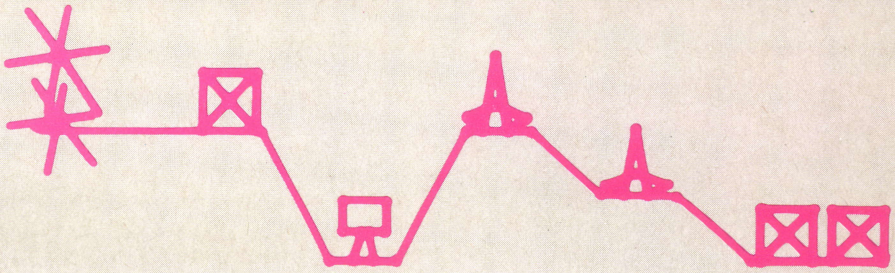
The coin-op concept for *Vanguard* works very well on both the 2600 and the 5200, but the latter has far superior graphics and sound effects. And let's not forget: *Vanguard* is the intense type of shoot-em-up for which the 5200's pause button was made.

There are three different tunnels to go through in this game, and each consists of a series of different objects and are like different games connected thematically to the rest of the game. Styx and Stripe zones will test your maneuvering ability, as well as give you plenty of enemies to shoot at. One of the brilliant features of this game is the firing mechanism. You can shoot from your ship in four directions by pointing the joystick as you fire. This is more realistic, and creates many more strategic possibilities, but it also forces you to move towards the object you want to shoot, the very object that will kill you on contact.

Rainbow zones are frequent and lead you up or down on a diagonal path, fighting for enough space among the constant barrage of balloons. Balloons will also kill you on contact, so you have to keep shooting those nearest you in order to keep moving. Of course, the last zone is our favorite, where you get to go for the Gond. If you kill it, you get a nice graphic and audio reward.

The speed of the action and the authenticity of the graphics aside, the most endearing feature of *Vanguard* is that you can continue a new game at the spot where you died in the old one. The program gives you the choice: Do you want to reset and start the game from scratch, or continue from here with five lives but the score reset to zero? And you can use this feature every time you die, which is nice if you care to see the whole game the first time you play it. You can start the game from any zone in any tunnel.

Don't bother with the energy pods in the early stages of the game. You don't need any energy yet and can usually score more points by firing than ramming.



SCRAMBLE ★★★

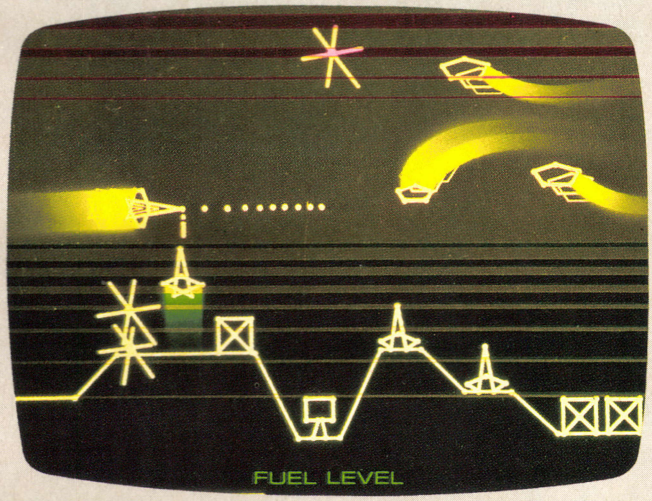
GCE/Vectrex

By William Michael Brown

Word has it that *Scramble* is the single most popular Vectrex game around. If so, then *Scramble* is also living proof that, in the world of arcade-to-home translations, reproducing sophisticated arcade graphics pales in importance next to producing a home game that's exciting to play.

At first glance *Scramble* seems a very unlikely candidate for home translation, especially for the Vectrex system. At least half the appeal of arcade *Scramble* (and close cousins like *Super Cobra*) is its complex graphics—highly detailed landscapes, multi-colored enemy rockets and saucers, fuel caches that say "Fuel" right on them, etc. All of these images are built out of pixel blocks, and represent something of a real achievement in raster-scan graphics—an achievement GCE could not hope to match, given the Vectrex system's totally different vector-scan graphics capability.

In the end, they didn't even try to reproduce the arcade graphics. Instead, they seem to have relied on the superfast Vectrex CPU to not only reproduce, but actually sharpen up, the arcade game's play action. The result is a game that looks only like a very sketchy



impression of its arcade progenitor, yet bows its head to none in the quick-reaction-time department.

In outline, the game plays exactly like arcade *Scramble*. Your spaceship starts out at the left end of a long series of scrolling landscapes, cityscapes and underground tunnels lined with guided missiles and enemy saucers (which you must avoid, or destroy with your bombs and laser torpedoes) and fuel dumps (which you must bomb in order to refuel your ship). Along the way, you must also dodge treacherous Flamoids, cave overhangs and other obstacles that you can't destroy.

Sounds simple, but when you actually get down to playing the game, it's pretty tough. The rocket launchings are precisely timed to catch you at the moment you're dropping down to bomb a fuel dump; nearly every such fuel cache is preceded by a veritable gauntlet of rockets; and the indestructible Flamoids make constant low sweeps, leaving you only a tiny window of safety to slip through. It took me two weeks of solid play to memorize enough of the pattern to get through the first level—and in later levels you'll face rockets that follow your flight path, faster Flamoids, enemy saucers and stepped-up fuel use that forces you to bomb almost every cache just to keep flying. You'll probably find the graphics a big disappointment—I did—but *Scramble*'s superior play features make it a more than worthwhile purchase.

> You get new bombs only when the old ones have exploded. Stay close to the landscape line and you'll have more firepower. And stay on the right side of the screen as much as possible—it's the only way to beat the rocket timing.

AIR RAIDERS ★★★

Mattel/Atari VCS

By Marc Berman

You can raid the icebox and you can raid a sorority party but how do you raid the air? That's the central problem with Mattel's M Network *Air Raiders*—there's a lot of air and not enough in it to raid.

It starts out with great promise, if a little abruptly. There is no title screen or catchy little tune—just an airstrip as seen from the cockpit of a jet fighter. Your altimeter reads 00 and you have 9 rounds of ammunition. Press the firebutton and the runway lights speed past you. Pull back on the joystick and you're airborne. The flight simulation effects are first-rate. As you bank to the left or right the horizon tilts. Line up your gunsight on enemy aircraft and fire. But keep an eye on the altimeter. A quick dive after an enemy craft can lead to a crash landing.

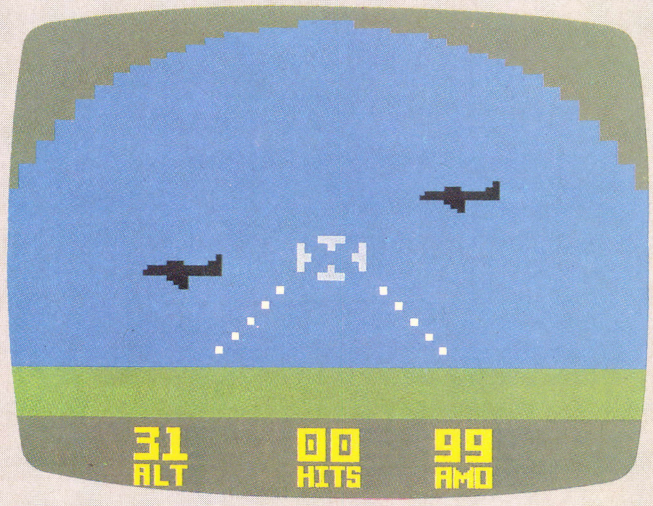
You can keep track of your horizontal position by consulting a bar that runs the width of the screen. Try to stay out of heavy flak zones. If you get hit by too much flak, you'll go into a nosedive. It's easy to pull out of the dive, but smarter to avoid flak altogether.

Pretty good so far, huh? The problem is the enemy craft. There aren't enough of them. And they're all the same. And they all fly at exactly the same distance from you. You'll probably find yourself spending more time than you'd like hovering at about 25,000 feet, waiting for the enemy to come into view.

Which isn't the worst thing in the world. *Air Raiders* would still be an authentic and entertaining simulation. But there's another problem. After you've shot down 10 planes, when your fuel supply runs low you can land your plane and refuel. Landing is a challenging little detail that gives a nice sense of "mission accomplished" when completed. But (and it's a big "but") you can only load as many rounds of ammunition as planes you've shot down. So, for instance, let's say you shot down 15 planes in your first round. You could only restock 15 rounds of ammo in your second round. That's a big comedown from 99. And let me tell you, 15 rounds will disappear faster than you can say "coffee, tea or milk." The upshot is you're left literally hanging in mid-air with a full tank of gas and no ammo.

The graphics and sound effects are straightforward and realistic. If Mattel had paid a little more attention to gameplay, *Air Raiders* could have flown higher.

There are a few simple tricks to avoid crashing on takeoff and landing. Let seven sets of runway lights pass by before pulling back on the joystick to lift off. When landing, nudge the joystick forward one thousand feet at a time. Also, don't wait till you are completely out of fuel to come in for refueling.

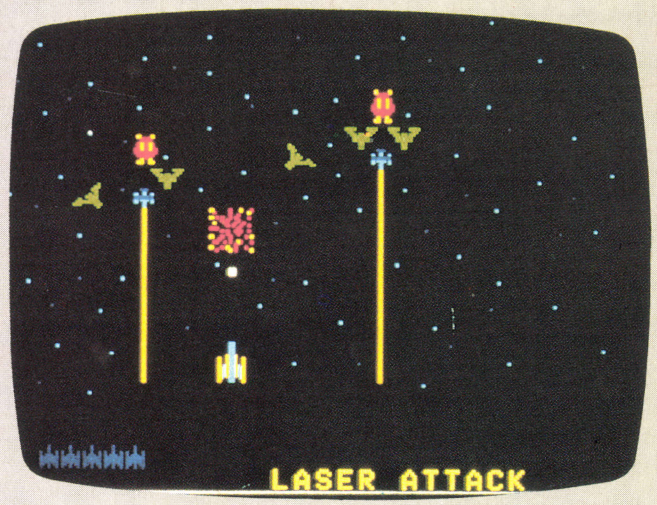


GORF ♪♪♪♪

Coleco/ColecoVision

By Noel Steere

ColecoVision owners have yet another reason to rejoice. *Gorf*, the first of the arcade translations of games by Bally/Midway, is here. And if this is any indication of things to come, you ColecoVisionaries have a lot to celebrate.



The game is really four games in one—as opposed to its arcade counterpart's five games. There's no *Galaxian* on the home version, but never mind. The four games that are here are just as good at home as they are at the arcade.

You start with *Astro Battles*, which is similar to *Space Invaders* except there are only three rows of aliens and a shield that totally covers you. The shield has only a one-shot thickness. The game may seem easy at first but it gets harder the higher you go.

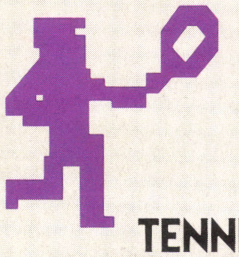
The next game is *Laser Attack*, which pits you against two fleets (except in the easier levels where there's only one). Each fleet contains three green ships, one red ship (which is a miniature of the Gorf character that we're all so fond of) and a blue ship which shoots a laser beam that's deadly to the touch. To advance to the next level, you've got to destroy all the ships in *Laser Attack* first.

The third game is *Space Warp*, in which you're locked in a tunnel and must destroy or avoid ships which come from the center. These ships shoot firebombs that are indestructible. After a certain number of ships are released from the center, you advance to the next board.

The final game, *Flagship*, pits you against the Gorfian flagship which you can destroy only by scoring a direct hit on the exposed part of its reactor.

The Coleco version of *Gorf* is the best *Gorf* for home systems that I've seen and simply confirms that Coleco knows what it's doing when it comes to arcade translations.

You can advance from ASTRO BATTLES into the next screen without destroying all the aliens. Simply crash into one of them instead. Although you lose one ship, you move to the next board.



TENNIS ♪♪♪♪

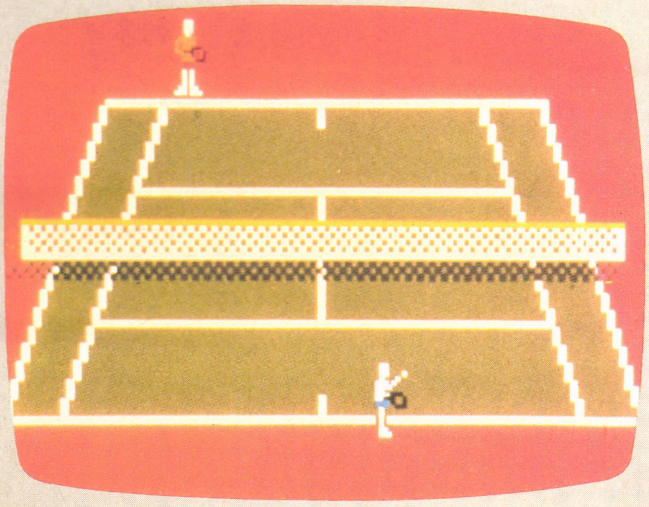
Atari/Atari 5200

By William Michael Brown

You thought that all you needed to be a successful tennis player was good reflexes, lungs like a bellows and a bad temper? Think again. When it comes to *Tennis* for the 5200, what you really need is a mind like Patton—a strategist's mind, crammed chockablock with nasty little tricks and swindles to defeat the other guy's plan... a mind that truly believes that, indeed, love means nothing in tennis.

Tennis for the 5200 is the best tennis cartridge around because it brings back the element of strategy that every other tennis cart lacks: an arsenal of different shots that you can really use. Via the keypad controller, you determine the speed and angle of every shot, hitting left, right, up the center, fast and hard, low and slow, a crosscourt lob or a baseline smash—everything. Thus, you can draw your opponent out of position with a controlled series of crosscourt volleys, then slam it down the opposite alley and polish him off... or sucker him down to the net with a couple of short drops, followed by a superlong lob that sends him tearing back to the baseline in total confusion. It's beautiful; every vicious little trick you've seen during a televised Wimbledon is yours for the price of a cartridge and a little skill with the 5200 controller.

The game doesn't have a realistic scoreboard, you can't punch in your initials, and the advanced play is still slower than regular play in the 2600 version. But the graphics are so much more detailed—(the animated players *really* look like they're stroking that sphere)—and the sudden shifts of offense and defense make *Tennis* almost as much fun to watch as it is to play. Sorry, Margie—advantage 5200.



TENNIS ♪♪♪♪

Atari/Atari VCS

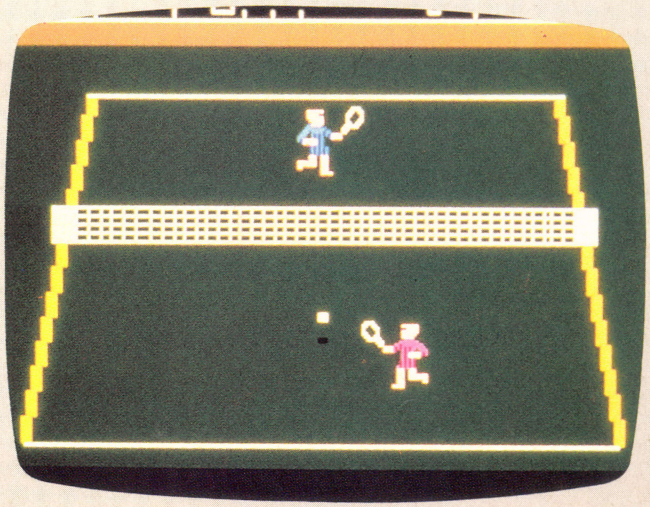
By Marjorie Crane

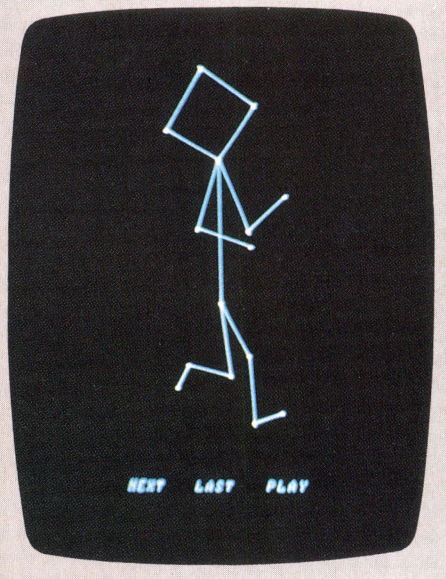
I've played on clay, I've played on grass and I've played on concrete. Now I can say I've played on a picture tube. With all this behind me I feel I can be a fair judge of the "tennis biz". I say all you need to play successful tennis is a good joystick. When it comes to tennis for the 2600, Michael, love means having to say point, set, match, 2600.

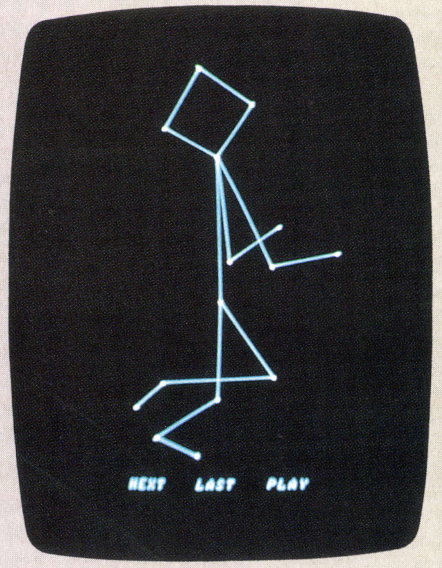
The newest RealSports from Atari is one of the most challenging of all tennis games—or VCS games for that matter. The cartridge is capable of slow or fast play between you and the computer or between you and the challenger of your choice. I'll warn you here; the action and speed on the fast version is furious and nothing short of maddening. When you're playing the net, it's next to impossible for your opponent to hit a passing shot if you can just keep your eye on the ball. When in back court, it's a lot easier to place your shots—you can hit the ball at severe angles by using the tip of your racquet.

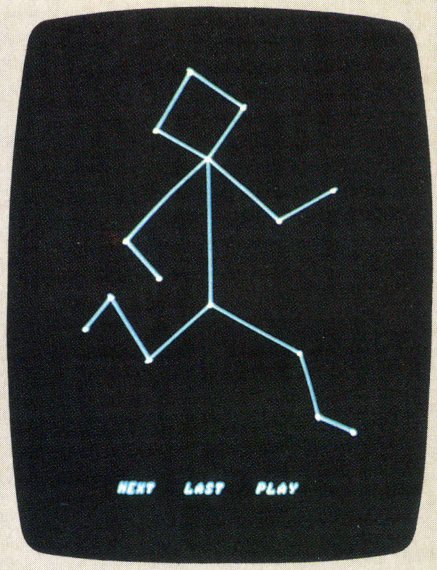
Sure the 2600 doesn't have as huge a variety of shots as the 5200 does but, then again, who needs that variety? It takes more time to choose a shot on the 5200 and then execute it than it takes to watch McEnroe and Borg play a quickie at Wimbledon.

As for the graphics, Atari has come up with one of the most unique gimmicks available on a cart today. Now you can see your own name in lights. Yes, it's true, tennis fans. You can punch up your own name on the scoreboard behind the court. You can also play two out of three sets on the scoreboard, something you've never been able to do on a video tennis game before. In this humble 2600 player's opinion, advantage 2600.









ART CART ♪♪♪♪

GCE/Vectrex

By Randi Hacker

Strictly speaking, it's not a game but this new cartridge from GCE proves that the light pen is mightier than the crayon or air brush or tempera you've used in the past to create pictures. Even if you failed art, it should keep you occupied for hours not only making vector sketches but (hold onto your hats) creating your own simple animated short subjects. That's right, gang, the Art Cart lets you make pictures that move.

You have a choice of three activities: sketching, connecting the dots and animating. While the other two activities are fun—creating static picures in the first case and defining a picture in a series of dots which connect themselves in the second—it's the third option that will really knock you out.

Using the light pen in the "Create" mode, you draw a figure. Let's say you choose a runner (let's say that because I did). You hold the point of the pen against the screen and press button two. This gives you a point of light. You then move the pen to another point, press button two again and a line will be drawn by the computer connecting the two points. You continue doing this until your first figure is completely defined.

Now comes the first exciting part. Place the pen over the word "Next" located at the bottom of the screen and press button three. You will now find yourself in Frame Two. You can no longer create new points but you can move the drawing that exists to another position. You do this by placing the point of the pen over one of the points of light, holding down button three and moving the pen. It's a little like Mary and her lambs. Wherever the pen point goes, the dot is sure to follow. So, in the case of the runner, you bring his front knee back a little bit, his back knee forward, his back arm forward and his front arm back. Inch by inch and frame by frame you change his position.

Once you're satisfied with your progression (or once you've run out of frames), you place the pen point over the word "Play" (also located at the bottom of the screen) and press button three again. What happens next is truly incredible. The drawing moves. That's right. The runner progresses from the first screen through to the last in a smooth sequence. He runs. You've created life. If only Dr. Frankenstein were around to see this.

As you practice, you'll develop more skill and figure out ways to perfect your technique—how many points to use in any one drawing, how far to advance each picture from one frame to the next to achieve the smoothest transitions, etc. All I can say is—Walt Disney, look out.

> Let your people do their activities in the raw. Drawing the actual figure is a cinch. It's the wardrobe that presents a problem.

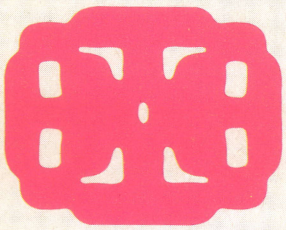
CAKEWALK ♪♪

CommaVid/Atari VCS

By Randi Hacker

At the turn of the century, the Cakewalk was all the rage. Danced primarily to ragtime music, it had very little to do with baking in any form. While the game *Cakewalk* has everything to do with baking except eating, I doubt it will become all the rage either now or when this century turns. A half-baked idea at best.

In it you are a baker who must uphold the tenet so dear to baker's hearts—keeping the bakery pristine clean. This task is made difficult by the fact that you are the only baker on duty and it is your job to catch cakes that come hurtling in on five or six conveyor belts. Cakes that you miss fall off the end of the belt and smash freely and unceremoniously on the floor below. At this point your only assistant, a very determined and hyperactive little janitor with a broom, comes scurrying in from the left to sweep up the





remains of the departed.

Other than rushing senselessly up and down to catch cakes and toss them somewhere to the right, there are no dangers except for an occasional knife and fork combo.

In the harder variations there are also gingerbread men. The only thing that separates them from other pastry is legs with which they move erratically back and forth as if they can't make up their minds which way to go. Still, they are slow and easy to anticipate.

Watch the little wheels under the conveyors. They move when a cake is being sent in and are stationary when no cake is coming.

SPACE DUNGEON ////

Atari/Atari 5200

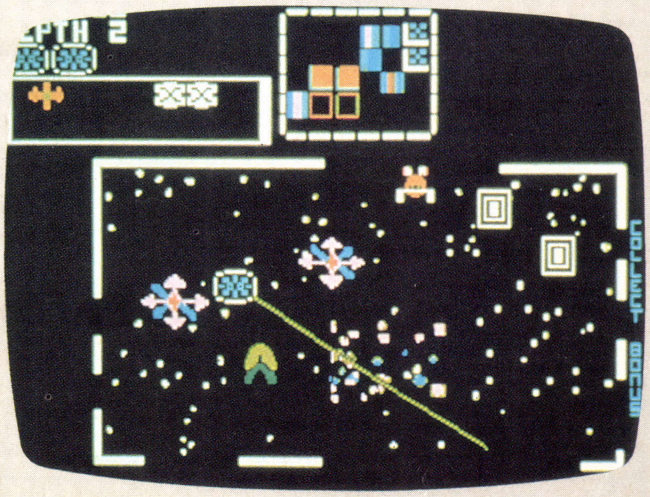
By Michael Blanchet

After playing the Atari home version of *Space Dungeon*, I was surprised to learn that the Taito coin-op of the same name was a dog as far as the gameroom audience was concerned. How could a game that combined the best elements of *Venture* and *Robotron*, along with a host of other nifty features, pass virtually unnoticed in the gamerooms of America? Atari 5200 owners are indeed lucky that Atari resurrected this jewel of a game.

The object of *Space Dungeon* is to move through a series of connected rooms in search of treasure. Once you've picked up all the artifacts, you must make your way back to the room that contains the words "Collect Bonus." At this point your score is credited for every prize in your possession. From here you move on to level two.

Each level consists of thirty-six rooms, stacked six high by six across. As you move from chamber to chamber, your path is plotted on a small grid at the top of the screen. A solid colored block denotes a room that you have already traveled through. The flashing square shows your present position. Any room that is yet unvisited remains black. Sounds like *Venture*, right? Well, yes. Up to a point similarities do exist. But where *Venture* failed, *Space Dungeon* shines. This cart is full of the good stuff that separates good games from great ones—the element of surprise. Although each room (as far as shape and size are concerned) is identical, no two boards contain the same number of treasures or the same number of aliens. Some compartments will be void of opposition. Others will be teeming with bad guys that are bent on keeping a good distance between you and the loot.

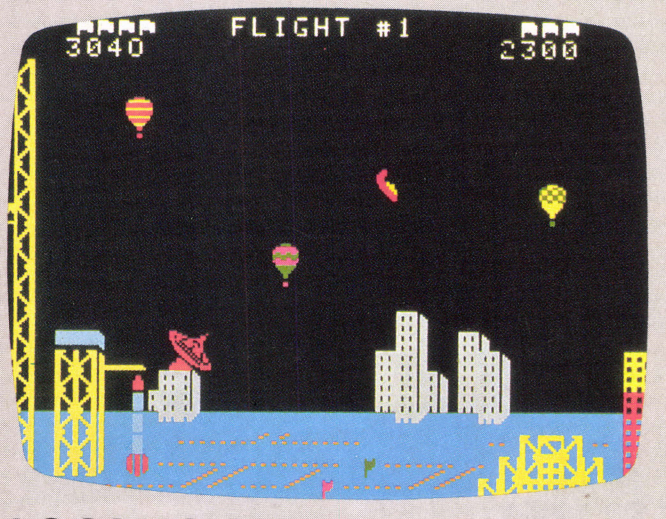
Treasure hunting has never been easier—you need only to run over the mish-mash of crosses, shields and vessels when they appear. Battling the bad guys is another story. Your circular space craft can fire in eight directions. None of this one shot at a time stuff; this ship is an awesome killing machine. The trick of the matter is learning how to operate two joysticks simultaneously. The right stick is used to move your ship. The left controller aims and fires your lasers. I'll admit this is an awkward arrangement but without it the game would suffer immensely. I found that taping the two controllers together side by side kept them stationary, but Atari has plans for a device that will allow you to use both without tape. I also found that this was one game that the infamous 5200 controller was well suited for.



One feature peculiar to *Space Dungeon* is the bonus system. Assuming you have acquired all the treasures (or even just a handful), you can move on to level two by simply entering the "Collect Bonus" square. Another thoughtful bit of programming eliminates the dreaded "you gotta start over from the beginning when your man gets hit" situation. When your ship falls prey to an enemy shell or laser blast, all the treasures collected up to that point are redeposited in the room you occupied at death. You are then placed back in the lower left-hand corner of the grid. To recapture the treasures you must move to the room that is appropriately marked with an "X". This is far better than having to trudge through the entire level all over again.

Space Dungeon is a must-have for fans of the fast and furious shoot-em-up. Unlike your average blast them to bits contest, *Space Dungeon* offers a degree of intrigue and suspense normally found only in a fantasy/adventure game.

As you enter a new room, always shoot side to side. If the room contains a corner laser trap, you'll get him before he gets you.



LOOPING ★★★★

Coleco/ColecoVision

By Noel Steere

In *Looping* you control a plane (that looks a lot like one of the spaceships from The Jetsons) which must go around a fantasy world from left to right in order to reach a box labeled END. But why, you might be asking yourself at this time, is the game called *Looping*? Because of the unique way in which you make directional changes. You don't simply turn your biplane by moving your joystick left or right. No. You've got to loop to go in the other direction. You loop the plane either clockwise or counter-clockwise and when you stop, you fly off in the direction you're facing.

The first of many scenarios starts you off at the runway. After hearing your propellor roar for a while, you take off. Once you're airborne, you've got to avoid balloons at the same time that you try to destroy all of the large rockets also ominously present. One of these rockets is on a launch pad to the left of the runway. Others will be hidden inside two structures that have small red blocks on either side. These blocks are deadly. Don't touch them. You can, however, destroy them by shooting them.

After this you've got to deftly avoid a green drop which falls from a pipe at the top of the screen. Then you must destroy twinkling monsters which appear in the next room. Finally, you must avoid large balls while trying to touch the END box.

In the Ball Room, go to the top or bottom of the room and hit the wall with your plane when you are above or below the opening to the inner Ball Room. Not only will you rebound off the wall and go directly into the opening, you will also destroy the ball guarding the doorway.

M*A*S*H ★★★★

Fox Games/Atari VCS

By Marc Berman

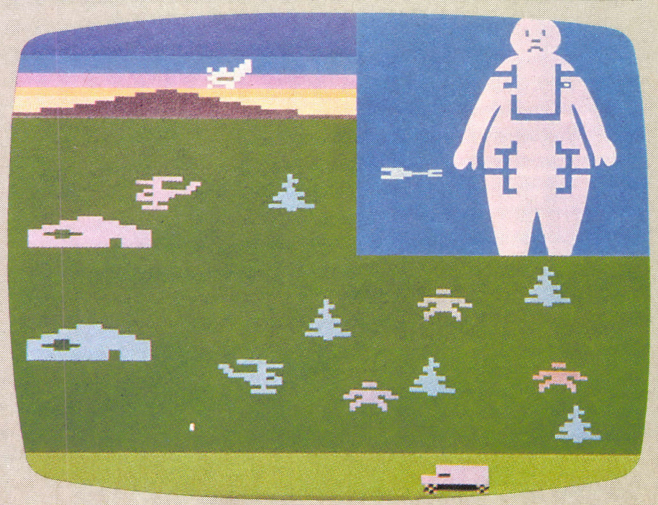
First off and for the record, to make a video game out of M*A*S*H is risky. As a movie and TV show the point was to show the triumph of the human spirit over the inhumanity of war. Take away the humans we know and love, and you've got a heartless trivialization of a gruesome international war. Case in point: In this game when you botch surgery your competitor, Frank Burns, gets points!

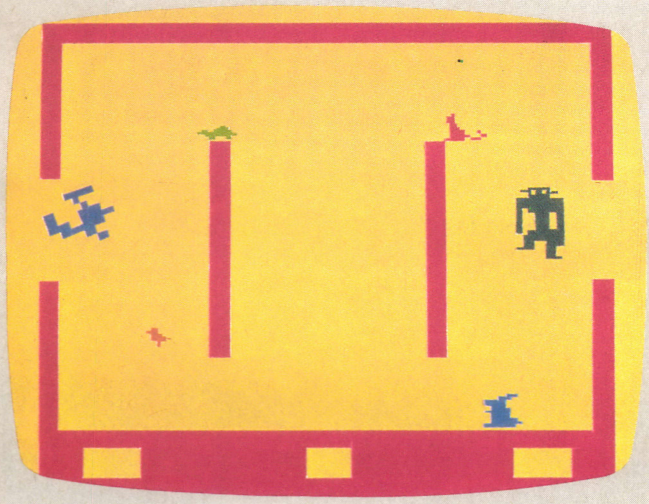
That said and social responsibility aside, this is a terrific game. There are four different games for one or two players and they are *actually different.* In each one, you either play against Major Burns (the computer) or a second player. The object is to score 999 points before your opponent does, by delivering injured soldiers to the hospital in your helicopter and successfully removing shrapnel from their shredded bodies.

The surgery screen presents you with the hapless casualty, casually speckled with shrapnel. You control a delicate surgical instrument which looks like a fork. A light touch is called for here as you try to remove the shards without letting them touch internal organs.

Med school never prepared you for the rescue screen. Here you need daredevil reflexes and agility to steer the clumsy copters around trees and tankfire. Unfortunately, these copters aren't Blue Thunder. They're not very responsive to the controls and have the nasty habit of getting wedged between trees.

It's better to get shot down with a full load of casualties. The reason is, your copter will reappear at the hospital where you have to dock to unload the casualties anyway.





SKY SKIPPER ★★★

Parker Brothers/Atari VCS

By Marc Berman

Saving one species of animal (e.g. whales) is not enough for Parker Brothers. In *Sky Skipper* you're the savior of many species you never suspected were endangered. The object of this humanitarian game is to rescue turtles, kittens, bunnies and ducks from a possessive gorilla.

You pilot a biplane. To rescue the critters you first must disable the gorilla with temporary "stun" bombs. When you score a direct hit the animals leap out of their cages and you must swoop down and pick them up. You've got three planes per game and a limited supply of fuel to complete your mission of mercy.

One nice feature of *Sky Skipper* is the scrolling screen. The playfield is actually twice as big as the screen. The configuration of barriers is more difficult in the upper half. Controlling the biplane takes a little getting used to. It continues to fly even after you release the joystick. You'll eventually get the hang of it, after puree-ing a few kittens.

There are three different game variations for one player. Toxic clouds can total you on levels two and three. Your plane is also faster on level three.

The graphics are fair. The gorillas look more demonic than simian, but the caged cuties look suitably helpless.

There are very few twists or variations in this game, and the controls require a minimum of skill or experience—which means this game would probably go over better with little brother or sister than with real flying aces. It's got the charm of *Cosmic Ark*, but without the graphics or sophisticated gameplay. A few more enemies might have helped, like medical lab researchers looking for specimens. But the simplicity has a certain appeal—that is, unless you're a gorilla.

Your instinct will initially lead you to pick up one whole species at a time, but you can completely refuel if you pick up one of each animal in succession. Then go back and get the stragglers.

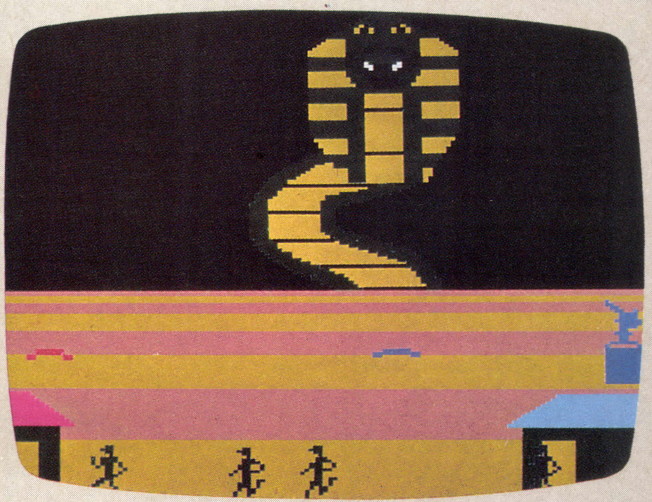
G.I. JOE COBRA STRIKE ★★★

Parker Bros./Atari VCS

By Mark Trost

Now don't get me wrong. I love a good war game, and *G.I. Joe* definitely qualifies as one. But I just don't love it, and for a couple of reasons.

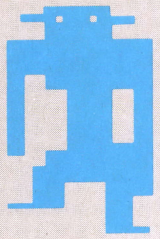
The first is the game's design concept, which seems to me to be excessively violent. The basic scenario pits our hero Joe against a 10-story-tall robot snake dispatched by "an evil organization named Cobra" (according to the instructions). That would be fine, except that Joe can't simply battle the snake head-to-head. He's also got to rescue dozens of "recruits," who all scurry across the bottom of the screen while the Cobra tries to vaporize them with its lasers and venom. And in the two-player variations, one player can assume the Cobra's role. Thus, *G.I. Joe* is one of the few cartridges in which scores of helpless, fleeing human figures are actually *targets*.



If none of that bothers you, however, you'll find that *G.I. Joe* does pose a unique video game challenge. As Joe, players must shoot the Cobra in the eye eight times with missiles fired from paddle-controlled gun turrets. Increasing the challenge is the need to move a shield across the bottom third of the screen in order to protect the running recruits from the venom and lasers.

Unique to *G.I. Joe* is its ability to accommodate up to three players simultaneously. In the three-player game, two take defense positions while the third uses a joystick to control Cobra's offense.

Always fire after the snake drops its venom, and keep firing if the venom (or laser) is going to miss the recruit (there'll be no real need to shield him).



DOUBLE FEATURE ♪♪♪♪

Softsync/Timex-Sinclair (16K)

By C.A. Brandt, Jr.

Time to go to the movies! It's Saturday afternoon and there's a double feature playing at the Softsync Theater.

Like any matinee movie, you have to wait in line. It takes a full seven minutes to load each game, but at least you know that every bit of the Timex's 16K memory is being used. Make some popcorn while you're waiting, because the wait is worth it.

You're not really watching a movie; you're playing a text adventure game on your computer and that, in some opinions, is even better.

The first feature for today is "Quest for the Holy Grail." You begin your quest by landing on a jungle island. All you have is a gun. You must type commands such as GO NORTH, GET TORCH, USE MACHETE, QUERY SMUGGLER, etc. Each command lets you explore the island, pick up and use objects.

There are many dangers to be overcome. You can be killed by snakes, apes, Nazis, smugglers, quicksand and much more. If you are wounded, you must find a healing potion or a doctor quickly. You can even talk to people in the game and get clues about the Holy Grail's secret location.

But we said this was called *Double Feature* and what's a double feature worth unless there are two (count 'em), two movies? And so there are.

The second feature at the Softsync Theater is "The Elusive Mr. Big." You are a detective in search of a dangerous criminal, Mr. Big.

Besides the command used in "Holy Grail," you can STUDY objects for clues. If you STUDY the KNIFE, you may discover a clue that leads you to Mr. Big. You can also SEARCH nearby areas to see if Mr. Big is there.

You travel through a big city, looking for clues, objects and witnesses. The only danger you face is the evil Mr. Big himself, and he is one tough customer. If he wounds you, you must get cured quickly or you will die. Unlike the location of Holy Grail in the first game, Mr. Big is constantly on the move. The only way to win this game is to kill him.

Every time you start either of the two games, the clues and locations are completely rearranged from the last time. So if you think you've figured out a game, you haven't. It will be totally different the next time you play it. This, of course, is one of the secrets of games excellence... ever-changing elements which help maintain a high level of intrigue and interest.

Take your time between moves. Even though you may seem in danger, time doesn't pass until you type in your command.



AZTEC ♪♪♪♪

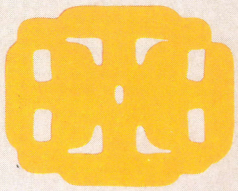
Datamost/Apple II

By Michael Blanchet

Raiders of the Lost Ark rekindled a national interest in the great adventure story. Naturally, video game makers capitalized on this veritable treasure trove of subject matter. Atari's *Raiders of the Lost Ark* cartridge, a forgettable game that was named after the unforgettable movie, was one of the first great adventure games but certainly not the best. *Aztec*, which is clearly inspired by *Raiders*, demonstrates that the great adventure is a viable topic for a game, and one that can be both captivating to the mind and appealing to the eye.

I have nothing but praise for *Aztec*. Unlike most video games, the package description is relevant to the on-screen action. According to the storyline, "a fabulous Golden Idol" (the Aztec equivalent of the Lost Ark) is hidden within the mysterious lost pyramid. An eccentric archaeologist, Professor von Foerster, has already descended into the depths of the temple but has failed to return with the prize. Rumor has it that von Foerster is insanely jealous of the unattainable idol, so he constructed a bunch of booby traps to protect the idol from other explorers. Those "other" explorers he spoke of include you.

The Temple consists of eight floors, each of which contains eight rooms. A room is further divided into levels (up to three). As you move your Indiana Jones-like figure through the temple, you'll encounter a number of hazards (booby traps, of course) and unsavory characters (spiders, snakes, scorpions, Aztec warriors and dinosaurs). You begin the journey with three sticks of TNT and three units of strength. You'll lose a little of that vitality each time a temple denizen sinks his teeth into you.



According to the directions, each situation you confront has a fair solution. They did not say that it was clearly evident. Thus you must experiment. Your score is determined by the difficulty level you select (there are eight) along with the time it takes you to retrieve the idol and escape the temple's confines. Those of you who have learned from video games that you must kill everything in sight will be saddened to know that "no extra points are given for wanton destruction or unnecessary killing." And while destruction is definitely not the point of the game, being quick on the trigger or good with a machete certainly helps. As you begin searching the lower levels, you'll find the snakes and other monsters become ever faster, more numerous and more difficult to kill.

What makes *Aztec* unique among adventure games is its dual appeal. Not only is it a good thinking man's game—it's also a joy to behold graphically. Each step of the journey is beautifully portrayed in graphics that come pretty darn close to comic book caliber. No stick figures here. The explorer is an incredibly life-like figure that walks, runs, climbs and crawls. On your command he'll brandish his machete or gun, open a box or sweep away the rubbish of the ages to uncover an object that will aid you in your search.

Aztec is one of those rare games that demands—and usually gets—your undivided attention. But, even if you take the time to plot your journey, don't think you have this game licked. Each temple configuration is different with each new game. This alone is testimony to the durability of *Aztec*. *Aztec* challenges you to react to a number of diverse situations. The game never gets stale.

This is what I call a paper and pencil contest—maps are recommended as an aid in finding your way out before time is up and before the idol depreciates to a fraction of its original value.

WAVY NAVY II

Sirius/Apple II

By Michael Blanchet

I quote the following from the package of *Wavy Navy*, "Wow, sometimes it's hard to believe that *Wavy Navy* is just a video game." I agree with this statement whole-heartedly. Not only is *Wavy Navy* a video game, it's also a surefire cure for insomnia. The directions should say (but don't), "Play *Wavy Navy* only after you have brushed your teeth and set your alarm clock."

Wavy Navy promises "fast action for one to four players", and to be perfectly honest, it delivers. Compared to *Space Invaders* (a game it closely emulates) *Wavy Navy* is a rather brisk contest with a few nifty variations never before seen in the brimming category known as "laser base" games. Regardless, no number of spiffy tricks or aces up the sleeve can save this game. The overworked storyline and the objective of the game have worn so thin that by now I'm afraid to discuss it lest I put some of you to sleep.

Anyway, here goes. You are represented in these goings on by a P.T. boat (which, to me, looked more like an upside down umbrella than a seaworthy vessel). The waters you must defend are by no means calm. Huge swells roll across the lower portion of the screen like a wavelength readout on an oscilloscope. For some reason, your lateral position is unaffected by these waves. As a wave slides beneath your ship, you are lifted to its peak and then slip down its back side. This is a very effective effect.

Overhead sits a squadron of enemy jets and choppers that patrol the skies in a tight, precise formation. From here on out, it's standard fare—the jets, as a group, shift from left to right, drop down a hair when they reach either side of the screen and occasionally throw a timid little bomb at you. Wipe 'em all out and you're promoted from gally slave to boatswain.

In later rounds, the game tosses a spitball or two at you. If you dally too long with any one force, the choppers will swoop down one at a time to strafe the waters with some form of munitions. Every once in a while, a jet will peel away from the group and head toward you in a zig-zag, drunken fashion. Again, credit is due. Instead of simply getting faster, *Wavy Navy* manages to introduce some new challenges as the game progresses.

My question, though, is this: How long does Sirius, or any software company for that matter, think the gaming public wants to play silly rehashes of *Space Invaders*? Correct me if I'm wrong, but I thought the Apple computer was capable of handling more sophisticated games than, say, the Atari VCS. You wouldn't have guessed as much after playing *Wavy Navy*. For all its fluff, hype and implied lunacy (the package illustration is quite funny), this game couldn't hold a candle to the vast majority of the software made for less powerful home computer and game formats.

I have to say one thing though—this is one computer game that is actually easier to play on the keyboard than with a joystick or a paddle. The "left" and "right" keys power your ship along at a swift clip. A second tap on either button locks your vessel in place. This maneuver (which is critical to anyone looking to advance past the rank of cook) is difficult to execute with a stick.

In closing, I have one final question—are video game designers devoid of imagination? Are they so bent on twisting around and brushing up old favorites with a fresh facade? Can we expect something new soon? I certainly hope so because I, for one, am tired of playing *Space Invaders*.

GALACTIC ADVENTURES ♪♪♪

Strategic Simulations/Apple II

By Hartley G. Lesser

Ever had the desire to be a Koraci? How about a Gorsai? Then there's a Dulbian, Zorcon, Night Stalker or even a Human. (I'm partial to them.) Enjoy travelling to distant planets for adventures the likes of which very few mortals dare experience? Then *Galactic Adventures* seems custom-made for you.

Believe it or not, the premier Apple adventure/role playing game from Strategic Simulations can be molded by the player insofar as custom adventures can be created from scratch. Two disks govern play, which initially asks the player for the species (selected from a group of 15 possibilities, ranging from the interesting to the hideous) he or she wishes to manage. The species' attributes are revealed, and the selection can be either cancelled or retained. Then comes the necessity of selecting weapons and advanced skills. Such a selection might consist of a phasor rifle and holistic logic. Unfortunately, depending on the planet the character hails from, some specific selections may not be available.

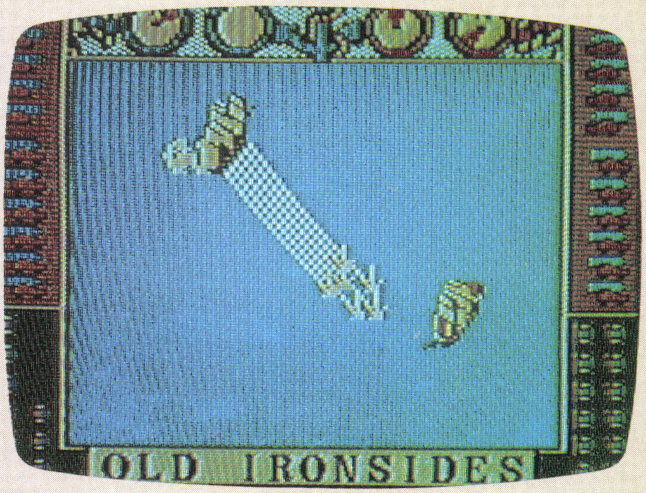
Then it's off to the weapons shop to buy the special killing device, and secondly to market to purchase whatever tools are required for the advanced skill. The adventurer may then enter the streets of the planet to seek employment, buy special items or join another band of adventurers. Not all encounters are friendly, however. Or you can go to the space port, buy passage to another world and try your luck there. Perhaps the Guild Area might be the best course, where an adventure awaits the intrepid gamer. No guarantee of success, though. In fact, one might lose everything . . .

There are various tests interspersed throughout the game. For example, job offers that are accepted aid in the character's development if successfully completed. Treasure found on an adventure is yours for the keeping. However, make certain your character has plenty of money at hand. Fellowship with other adventurers is fine, but costly. If they join you and become part of your merry band, you not only pay their salary but also purchase weapons for them.

The characters, games and adventures you create are all saved to a data disk. SSI also developed a 23-page player's manual that does extremely well in guiding one through the game.

Galactic Adventures—role play, arcade and science fiction adventure all compressed onto two disks for fantastic fun.

If you've few friends in the streets, the light of day is your best ally!



OLD IRONSIDES ♪♪♪

Xerox Education Publications/Apple II

By Hartley G. Lesser

"She be tackin' to port, Cap'n."

The voice cried aloud the warning, shouted from the crow's nest high above.

The captain, face weathered from decades of salt spray, freed his cutlass from its leathern scabbard.

"Avast, ye lubbers! Look ye well to the starboard cannon. Belay the mizzen's yardarm. Be clearin' the deck fer action an' shot."

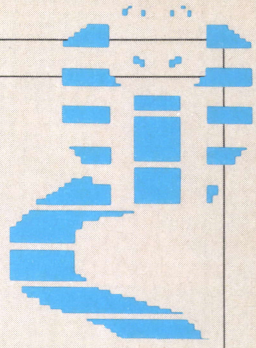
At long last, the chase was over. Both three-masters would soon know who the better master be. All was silent, save for the groan of strained ropes and pulleys, and the rush of ocean against the prow. The ships drew closer, each planning a broadside, awaiting the correct tick of time to pull hard about, bringing cannon to fully bear upon the opponent.

"Now!" bellowed the Captain.

The three-master rolled as the full compliment of starboard cannon belched flame and shot, racking the enemy's decks and holing the mainsails.

Of such items is *Old Ironsides* programmed, an exciting Apple arcade game from Xerox Education Publications. Here, two players command their own three-masters in a watery duel to the death. Paddles or keyboard maneuver the vessels about the ocean, taking advantage of dominant winds and banks of fog. Each ship has 12 cannon, six to port and six to starboard. A press on the paddle button fires all six cannon facing the enemy three-master. Draw in close, mateys, for should luck be sitting upon your shoulder, your broadside could set off the enemy's powder magazine and up she'll go in a blaze of flames and smoke.

At the top of the screen are four dials . . . a compass and damage indicator for each ship. The compasses may be disabled by the player to prevent his or her



opponent from observing maneuvers.

A southerly wind blows across this ocean, so a vessel pointed south will barely move at all. Losing your masts to enemy fire is also detrimental to maneuverability—as well as survival. Becoming lost in the fog (area beyond the visible screen) is also certain loss if you become disoriented.

Even smoke drifts across the ocean after the cannons have been fired. A smattering of strategy is needed to win at *Old Ironsides*, which is bound to please even the most exacting arcade gamer.

As Horatio Lord Nelson might have said, "Boot it up, Hardy! Xerox Education Publications and England expect that every man today will do his duty." Or was it John Paul Jones who said, "I have not yet begun to hit my fire button."

Don't become too close a friend of a burning enemy ship!

FORT APOCALYPSE

Synapse/Atari 400/800

By Paul Backer

What happens when you mix *Defender*, *Scramble* and *Chopper Rescue* together, and put them out as one game? About the same thing as mixing ice cream, spaghetti and steak. By themselves they're each terrific, but when mixed together they make something that you don't even want to think about. This is what happened in *Fort Apocalypse*.

This game has the "rescue the hostages" theme from *Choplifter*, and also its bombing mode. It has the caves of *Scramble* and the movement and firing of *Defender*. *Fort Apocalypse* has to win some kind of award for consistently mixing oil and water.

The game begins on the *Defender*-like upper level, where you encounter some weary-looking aliens who practically refuse to move. You fire this terrific burst from your twin guns and the beams are absorbed by the alien, without any damage to it at all. Apparently your firepower is a joke—you have to hit everything just right in order to destroy it, and sometimes (to add excitement to the game?) the enemy simply refuses to be killed.

Well, after that you descend into *Scramble*-like cavern passages, where you are supposed to find and rescue the hostages. Down there you are opposed by a number of adversaries—enemy choppers and missile launchers—which are also present on the top level.

The graphics aren't bad, but they've been done by someone with no sense of interior design. The walls are a nauseating pinkish-purplish color. That problem is solved on the second level where the walls are invisible. It takes somebody with a deeply masochistic bent to enjoy playing a game where you blow up after running into something that you can't even see.

GO

Hayden Software/Atari 400/800

By Paul Backer

First, *Go* is not a racing or any other kind of an action-game. As a matter of fact, *Go* has nothing to do with the verb go. Go is the oldest strategy game in the world. It was invented in the Far East and predates chess by several centuries.

The object of *Go* is to control as much area as you can, while eliminating as many of the opponent's pieces as possible. This game is somewhat akin to another board game, *Pente*. *Go* can be played by two players, one with white pieces, the other black, or you can play the computer. If you decide to play the computer, you will be allowed to choose which side you want to take, as well as what kind of a handicap you want to give the computer—that's the number of pieces (0-9) that the computer is allowed to place on the board before the game starts.

If you know how to play the computer should provide a pretty good, though somewhat easily surmountable, opposition. On the other hand, if you don't know how to play it should be very easy to learn, considering that there is an excellent rules booklet provided. The rules are really very simple.

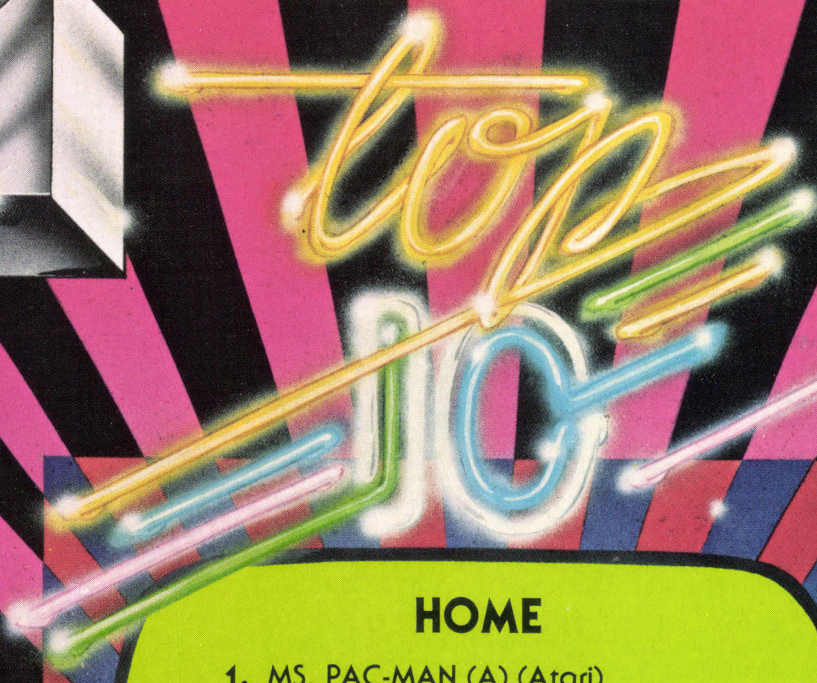
The graphics are more than sufficient for the purposes of a board game—the field is sharply detailed, and the stones (playing pieces) are very well drawn. There are no spectacular video or sound effects to reward you for eliminating a particularly pesky group of enemy pieces. As a matter of fact, the best you can hope for is a small blinking sign at the bottom of the screen saying "Atari" (check), which means that one of your stones is about to be spirited away to never-never land.

Go has one feature which is excellent if you are a beginning player—it allows you to change the position of any piece on the board, or to eliminate it completely. If you feel that the computer is giving you unfairly stiff competition, or your friend is beating you too badly, all you have to do is go into the Edit mode. Imagine the look on your friend's face when he comes back into the room after going out to get something to eat, and finds that he doesn't have any pieces on the board.

This game is excellent for the experienced player and novice as well. It's also nice for lazy people like me—it does all the boring math in figuring out who wins.

Keep the computer on the defensive. While it's pretty good on offensive, its defensive is weak.

ELECTRONIC FUN MAGAZINE'S



HOME

1. MS. PAC-MAN (A) (Atari)
2. CENTIPEDE (A) (Atari)
3. FROGGER (A) (Parker)
4. RIVER RAID (A) (Activision)
5. KEYSTONE KAPERS (A) (Activision)
6. SPACE FURY (C) (Coleco)
7. VANGUARD (A) (Atari)
8. PHOENIX (A) (Atari)
9. SWORDS AND SERPENTS (I) (Imagic)
10. DONKEY KONG, JR. (C) (Coleco)

ARCADE

1. POLE POSITION (Atari)
2. MS. PAC-MAN (Midway)
3. POPEYE (Nintendo)
4. Q*BERT (Gottlieb)
5. TIME PILOT (Centuri)
6. JOUST (Williams)
7. MR. DO! (Universal USA)
8. XEVIOUS (Atari)
9. FRONT LINE (Taito)
10. GALAGA (Midway)

The arcade Top Ten courtesy of REPLAY MAGAZINE, the coin-op Bible. The home games Top Ten was compiled by contacting retailers across the country. (A) stands for Atari VCS, (I) for Intellivision and (C) for ColecoVision.

©Neumann 82



Introducing the only way to play a thumb-numbing number of video games with just one cartridge.

Through your telephone!
For about 10¢ a play or less. With at least six new games planned each month. The latest and the greatest, plus previews of tomorrow's hottest hits that aren't even available yet. Play them whenever you want. Try them at home so you'll know what to look for in the store.

It's easy. Just insert the GameLine™ Master Module™ (it costs about the same as two game cartridges) into your **Atari® 2600 VCS™**, **Sears Video Arcade™**, **ColecoVision™** (with Expansion Module #1), **Coleco Gemini™**, **Intellivision®** (with System Changer) or **Columbia Home Arcade**, and hook it up to any telephone. After registering on our toll-free number, use your joystick to pick and play your favorite games, enter contests. And more. Your games will be automatically charged to your (or your family's) major credit card at $1 for about 10 plays. And your telephone will never be tied up for more than a minute.

Join GameLine. For just $59.95* plus a $15 one-time membership fee, you get: the Master Module; *GameLiner* Magazine free every month for a year (a $24 value); the GameLine Master File of game instructions; full-color poster. And more.

Be the first to play the best.
Become part of the first complete nationwide video game network of its kind with video game competitions, prizes and more. Much more!

Plug into GameLine wherever you buy your favorite video games. For the GameLine dealer nearest you, call us toll free at:

1-800-CVC-2100

*Suggested retail price

GAMELINE™
The incredible new way to play video games.

GameLine™ and Master Module™ are trademarks of Control Video Corporation. Atari® Video Computer System™ and VCS™ are trademarks of Atari, Inc. ColecoVision™ and Coleco Gemini™ are trademarks of Coleco Industries, Inc. Sears Video Arcade™ is a trademark of Sears, Roebuck and Co. Intellivision® is a trademark of Mattel Inc.
©Control Video Corporation. 8620 Westwood Center Drive, Vienna, VA 22180

reader's tips

MS. PAC-MAN

In the arcade game: On the third set of screens with red dots, always eat the bottom center loop as soon as the board begins—it's too easy to get trapped in there later, and the monsters will never trap you in there at the start of a red screen.

Roy Lieberman
Jackson Heights, NY

DODGE 'EM

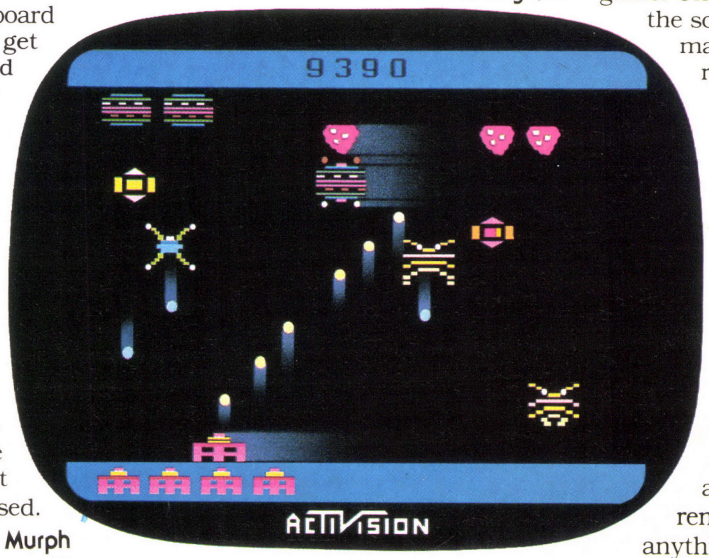
Start getting your dots on the outside of the screen, then work your way inward. When you get to the center, go back out and get the dots you have missed.

Daniel Murph
Richardson, TX

STARGATE

Rescuing four men and heading for the Warp Box gives you a big wave advance and extra ships, Inviso, bombs and points. But even after you've snatched your warp quota of four men, you can still use the Warp Box to rescue men from kidnapping landers without stargating to the next levels. It takes practice, but by slowly approaching the Warp Box and pressing the Reverse button just as the tip of your ship enters the Box (that is, backwards entry), your ships will remain within the same wave level. Taking advantage of this programming quirk will allow you to save as many men as you can before stargating for an even bigger wave advance of up to 10,000 extra points (plus more ships, bombs and Inviso). Be sure to leave at least one Fireball Mutant or Lander before your final warp, otherwise you'll get only one wave advance.

Captain Draw
Chicago, IL



SPIDER FIGHTER

Since this game is fast-paced, you may need some time to rest. You can get some by first shooting all the bugs except one Stinger at the top. Then position your blaster a little to the left of the leftmost fruit. The Stinger will drop bombs on both sides of you, but won't hit you.

Tony Stout
South Bend, IN

DONKEY KONG JR.

When you're on the second board, you should bring up the key that's all the way to the left. Then go all the way to the right and bring up the key on the right. Then do the rest of them in any order.

Roger Cadrin
Bridgeport, CT

BERZERK

Here's a way to add new interest and excitement to an already great game. On game number two, here's the scenario: You're in the first maze and surrounded by robots. You'll discover that your laser gun is malfunctioning and isn't recharging fast enough. In fact, you can't fire your weapon until there's only one robot left. Your only hope is to reach an exit and try to get the robots to shoot each other, blunder into walls or get creamed by their own Evil Otto along the way. Anytime you're still alive and only one robot remains, feel free to blast anything that moves. My best score is 6,350. Good luck!

Bernard Taylor
Roseville, CA

LOCK-N-CHASE

The upper prize will only appear after so many gold bars are eaten (four times per screen). The last on each screen will appear with exactly four gold bars left. Remember this and try to leave those last four bars near the top toward the center. This also makes it easier to pick up the last upper prize (4,000 points).

Tony Stout
South Bend, IN

Do you have a tip for your favorite game? If it's good, we'll print it in Reader's Tips. *Send tips to:* Electronic Fun, *350 E. 81st St., New York, NY 10028.*

ARCADES

Continued from page 32

Position. There were some real antiques tucked away in corners: Chicago Coin's *Rifle Gallery* and *Baseball Champ, Gang Busters, Stunt Cycle* and *Bimbo*, the dancing marionette. There were a few pinball machines too, including *Gorgar* and *Flash*.

Anne Scola, who runs the roost with hubby Vic, pointed out that high scores are posted weekly on cards. I snooped around. *Pole Position* - CRL 44,960; *Baby Pac-Man* -AOK 337,150 ; *Joust* - JOE 582,350 ; *Galaga* - 412,820.

The lair was filling up as I started for the door. Suddenly I stopped dead in my tracks. Nestled against a dark wall was a sit-down 3-D *Space Tactics* by Sega. In all of my travels I had never seen this machine. With my first quarter I racked up the third highest score. "Beat that, Junior," I said to freckly MJT, and flipped him a quarter. I made a triumphant exit like Mr. Arcade himself.

Pool, Pinball, Perfection

Jilly's Arcade came as close to my idea of a perfect arcade as anything I saw. It's on the Boardwalk in Ocean City, at the end of 12th Street, with a big parking lot in back. There are 170 machines including *Skeeball*, pool tables and 25 pinballs. The place is a cavern. It's been an amusement arcade since the 1930's. In the old days there was an enormous merry-go-round under the great wooden dome of a ceiling. Under the floor there's a big machinery room. The size of the place gives the music and machine noises a good tinny reverb. Backed up by the sound of the surf it's like a summer dream.

Paul, the manager, updates the machines constantly. Wandering around the video Xanadu, I spotted *Star Trek, Xevious, Kickman, Bagman, Food Fight, Wacko* and *Sweet Licks*. Paul says he's awaiting delivery of *Bubbles, Congo Bongo* and *Zoo Keeper*. He had also ordered Nintendo's *Mario Brothers* and *Gyruss* by Centuri.

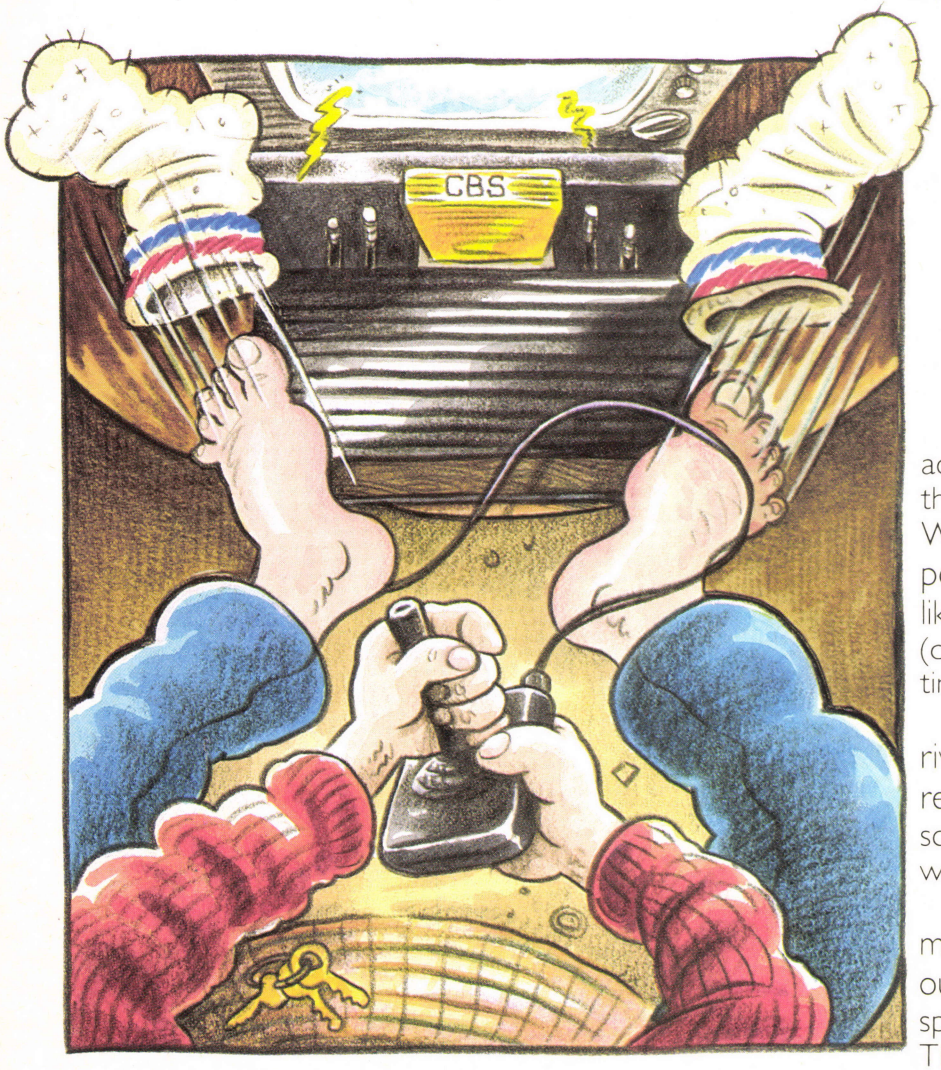
The hall is open 24 hours in the summer but, by law, it closes on Sunday. Paul keeps it pretty clean. For marathon playing, he's got stools scattered around the floor. He says he plans on eventually changing the fluorescent lights, which he believes create a glare problem on some of the screens. The lights didn't bother me.

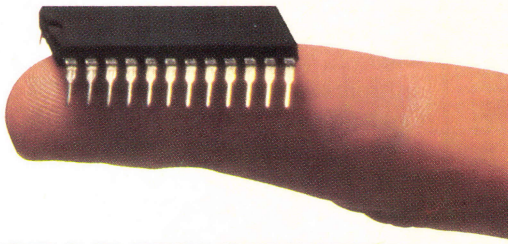
I played a few wistful rounds of *Robotron*, but knew it was time to move on.

I revved my engine and pointed the heap in the direction of the setting sun. Somewhere out there is the arcade of my dreams, and my initials will be there.□



HANG ON TO YOUR ATARI® VCS.™ THE FIRST VIDEO GAMES TO TRIPLE ITS POWER ARE ON THE WAY.





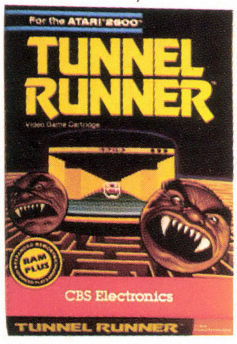
CBS INTRODUCES RAM PLUS.™

Just like that, you're streaking across the sky at Mach 3 or running through a maze with 20 foot walls. What gives? Our new RAM PLUS™ power chip. It gives RAM PLUS games like WINGS™ and TUNNEL RUNNER™ (coming this summer) a memory 3 times as powerful as ordinary games.

That means our "3-D" graphics rival any system around. You get the realistic action, extra detail, added game screens and arcade-quality sound you want.

You're in the cockpit as WINGS matches your flying skills against an all-out cruise missile attack. Check air speed, altitude, radar, compass and fuel. Then blast away with cannons, lasers and Sidewinder missiles. The free BOOSTER-GRIP™ increases your firepower with 2 extra firing buttons! In TUNNEL RUNNER, you don't look down on the maze, you're in it! Hungry monsters close in on you. So check the map, plot your strategy and find the exit fast. Your reward? A new and tougher maze.

So if you never thought an Atari VCS game could send you flying and running for your life, hang on tight. Our first 2 RAM PLUS games are on the way.



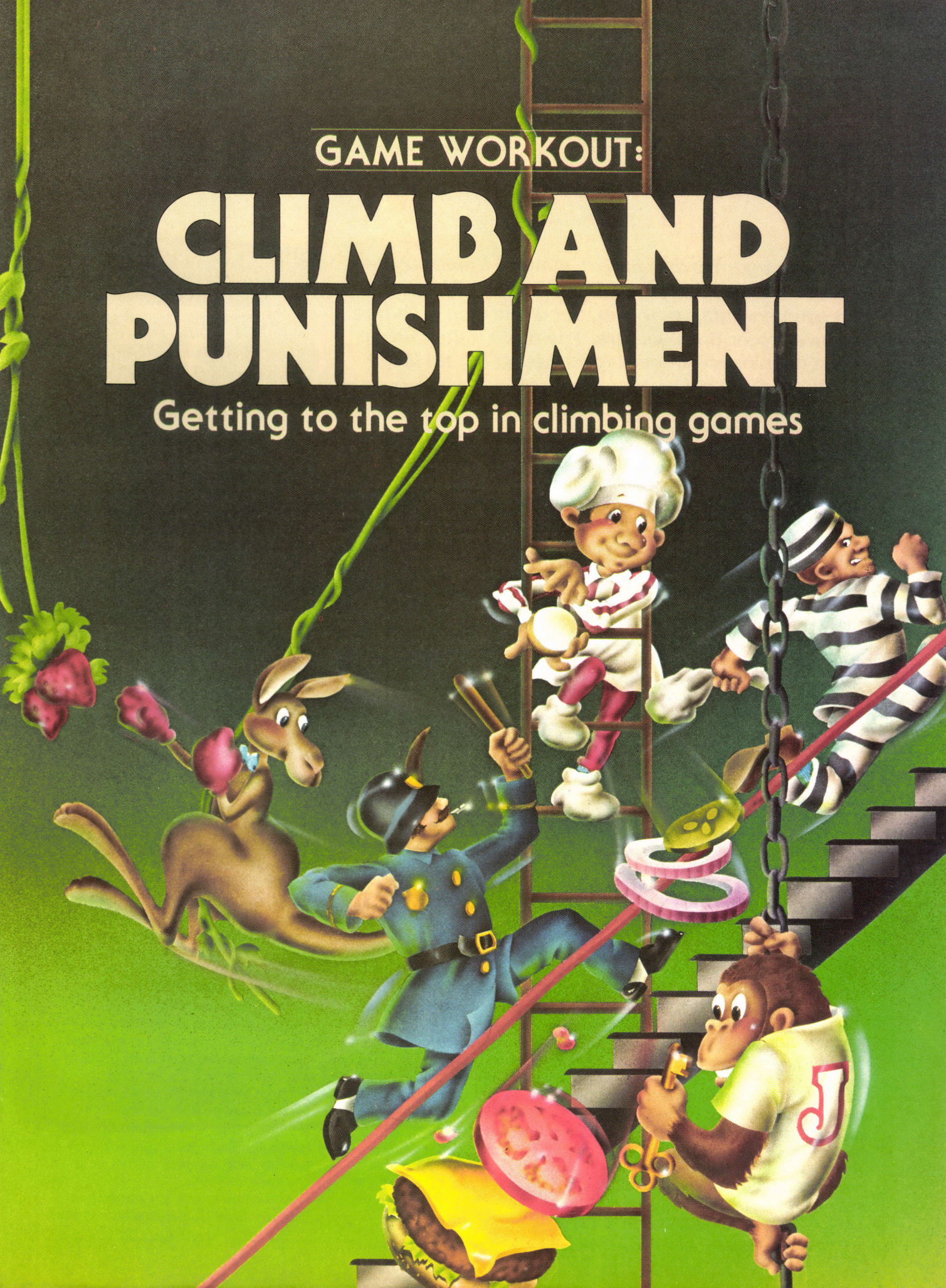


CBS Electronics

Where the excitement never ends.℠

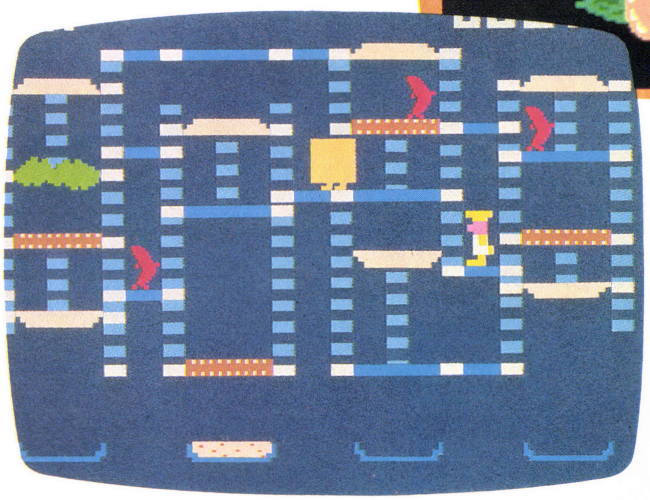
"ATARI" and "ATARI VCS" are trademarks of Atari, Inc. "WINGS," "TUNNEL RUNNER," "BOOSTER-GRIP" and "RAM PLUS" are trademarks of CBS Inc.

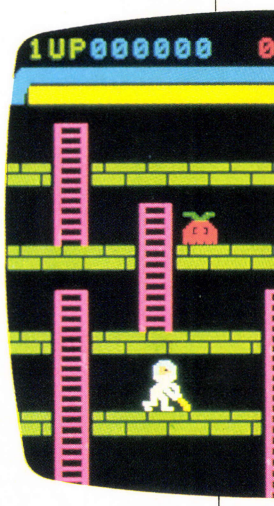
© 1983 CBS Inc.


GAME WORKOUT:
CLIMB AND PUNISHMENT
Getting to the top in climbing games

Climbing games and life are similar. You struggle to get to the top. You jump when you're told to jump and you generally try to stay out of the way of things that are bigger than you are. The main difference between the two is that getting to the top in real life is slightly easier.







The first video games batted balls around the screen. Pretty good practice for the wrist, but what about the rest? Then came shoot-em-ups. Great for eye-hand coordination (not to mention the old thumb muscles) but still guaranteed to do nothing for a flabby America. Clearly, in an era of Richard Simmons and tofu, a more well-rounded video game was needed. The climbing game was born.

Climbing games require all sorts of muscles that other games leave dormant. Running, jumping, ducking, leaping and, of course, vine-climbing add muscle tone up and down the length of the forearm. In addition, a heavy dose of body English is usually required to make some of those precarious leaps, or keep your man from falling off the edge of a platform.

One drawback of climbing games seems to be the scenery. Three types of settings predominate: Forests *(Kangaroo, Donkey Kong Jr.)*, caverns (*Miner 2049er, Mountain King*) and large urban structures (*Donkey Kong, Spiderman*). There are some exceptions, though. *Adventures of Tron* takes place inside a computer (which is rather like a cavern) and *Burgertime* is in a surreal MacDonaldland (which is really kind of a construction site). Still, within these bounds, game designers have managed to come up with an impressive number of variations.

What really differentiates climbing games from mazes and shoot-em-ups is the individuality of each climber. Every game requires a different touch, and it takes several plays to reach that threshold of skill which allows you to take obstacles in stride. Some games require running jumps to get anywhere; others will propel you several video feet almost from a complete standstill. Climbing characters also display an amazing range of abilities in surviving falls—video games may be educational but physics is obviously not a subject to learn from them.

Your Mine or Mine?

Take Bounty Bob, for example, the star of *Miner 2049er* on numerous computer systems as well as ColecoVision. Bob is capable of great leaps through space, but if he jumps down just two levels he dissolves into nothing (except his hat). *Miner* is unique in that you have to cover every inch of territory on every level before you can proceed to the next one. In addition you must retrieve all the treasures and slay all the mutants. It's definitely a game for perfectionists. *Miner* also requires more strategy than most climbers, and it's fortunate you're not under attack all the time or you'd have no time to think.

If you enjoy being attacked, try *Jumpman*. This Epyx creation is a maddening game, complete with 30 levels and a variety of attackers. You're sometimes required to land on platforms only as wide as your foot in your headlong rush to defuse bombs. The laws of gravity and motion are constantly defied by your enemies. Bombs will suddenly change direction at right angles—they'll even chase you *up* a ladder. Some ropes you can climb up, but not down; with others it's the reverse. Add to all this a hair trigger joystick and you've got one challenging game. The higher difficulty levels should be attempted only by gamers with reflexes that work at the speed of light.

At a calmer pace is *Canyon Climber* from Datasoft, which is also

notable for one of the oddest scenarios in video gamedom. You're a sort of mad bomber at the bottom of the Grand Canyon. You've got to get to the top (natch) and blow up your bridges behind you. Your enemies on the first screen are goats which travel both singly and in pairs. These must be jumped, and the perfection of the "double goat jump" is a satisfying accomplishment.

The second screen pits you against bow-and-arrow-toting Indians. Get a shield and face the arrows head on, or jump them as they fly at you (at a different speed each time, too). Don't get caught on a ladder, or you'll be up to your keister in arrows, as the ex-host of *Death Valley Days* might say. The final screen pits you against birds. Whatever it is they drop, avoid it. Reach the top of the Canyon and a bugle heralds your success. You've only got three lives, so every goat jump has to count.

If leaping is your life, *Fast Eddie* is your game. In this game from both Fox (VCS) and Sirius (Commodore, Atari etc.) you not only have to *wear* sneakers, you have to *avoid* them, too. The Sneakers (more like saucers with legs) are true to their name—they're always getting underfoot. Leap the Sneakers, catch the prizes and victory is yours. At the top of each level is a king Sneaker called High-Top, who loses some height each time Eddie grabs a prize. If it weren't for this you'd never win—Eddie's leaps are no match for a fully-grown High-Top, and you've got to leap H-T to get the Key to the next screen. Running jumps are the only way you go in *Fast Eddie*.

Girder Incorporated

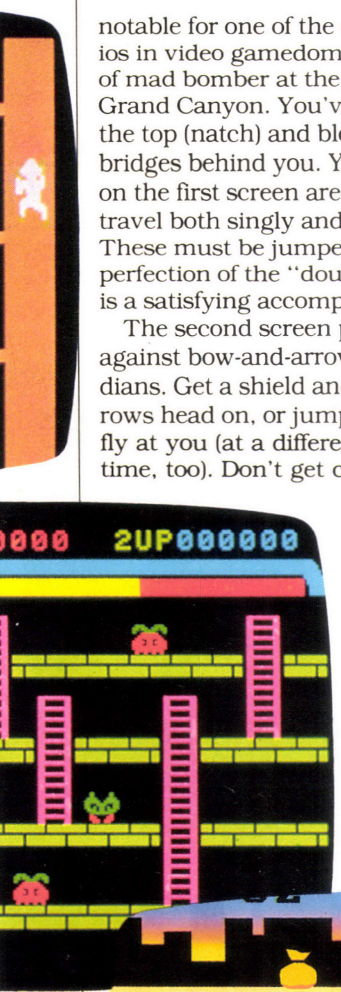
But what's all this talk about *jumping*? This is supposed to be the story of *climbing* games. If leaping leaves you cold, try *Squish 'Em* from Sirius. It's back to the construction site with you, as you hand-over-hand it up a building skeleton of girders, in pursuit of a suitcase full of money at the top. Blocking your way are a variety of slimy creatures, and since you can't leap with your feet in the air, you squish 'em.

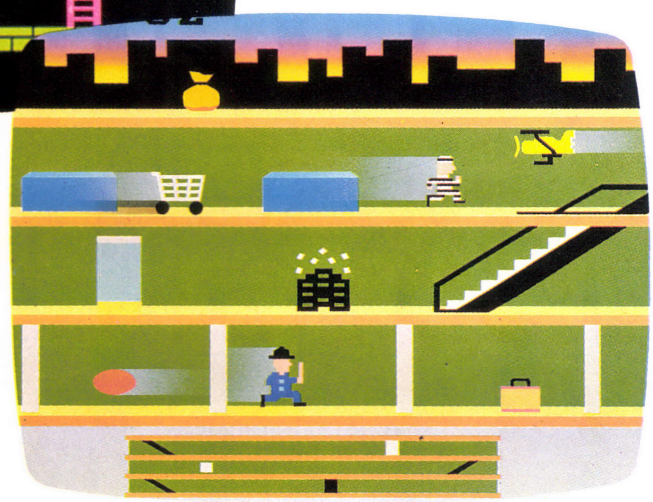
Hit the fire button and your feet raise and then drop on a slimeball—if your timing is right. You can only control those feet going up—they come down by themselves. A little off center and you take the shortcut down. You've also got to watch out for falling bricks. Squishing monsters is fine and dandy, but the real goal is that suitcase, so try to keep moving up and squish only when necessary.

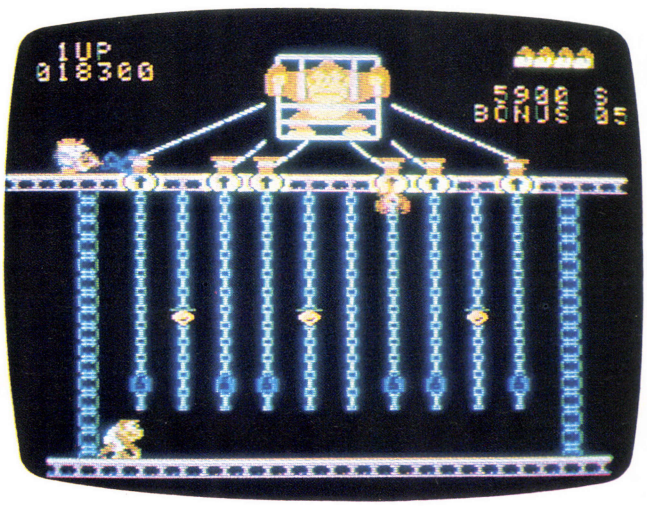
Aside from the very obvious psychological symbolism inherent in climbing games (i.e. the subconscious desire to get to the top of all heaps), we've already mentioned the good exercise what with all that running and jumping and up and down movement. But what about those of us who like to sit quietly and who find that the simple act of breathing makes us pant? Well, there's *Keystone Kapers*, the lazy man's climbing game.

In *Kapers*, you don't climb, you ride. You are a policeman with a billy club and a funny little hat right out of a Mack Sennet comedy. You're apparently the night guard in a department store and you're after a criminal dressed in a striped prison uniform. There are three floors and a roof and the robber is

Continued on page 93





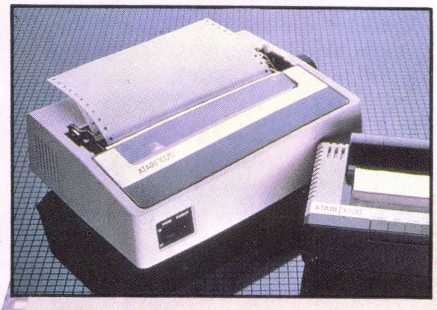


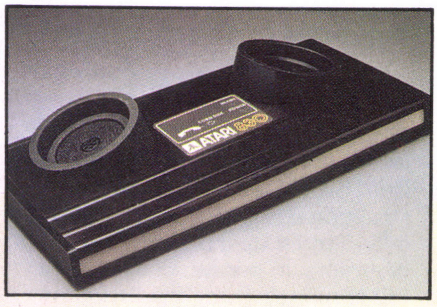
Jumping downhill from the far left: Mattel's BURGERTIME, the Atari 5200 version of KANGAROO, Coleco's SPACE PANIC, Activision's KEYSTONE KAPERS, and DONKEY KONG JR. for the ColecoVision system.

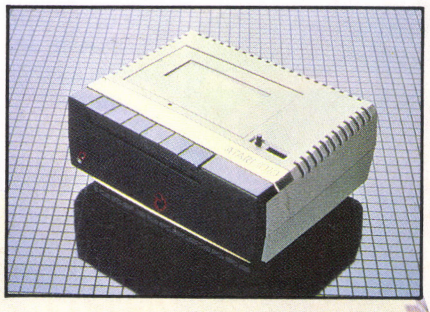
COMPUTER WORKOUT:

ATARI 1200XL

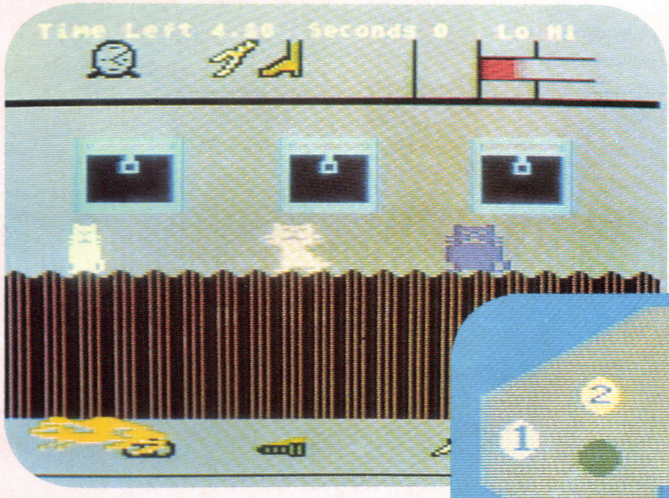
400 + 800 = Lots of new features

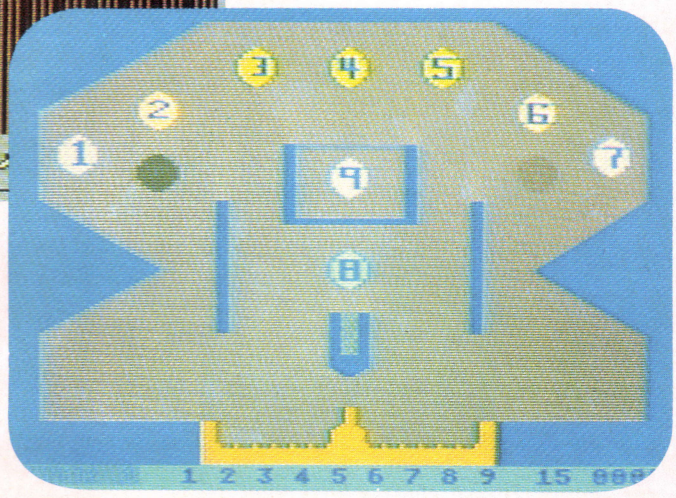






The 1200XL is Atari's latest computer, and its most powerful. Or is it? Although advertisements tantalize prospective buyers with a full 64K of memory, only 48K of programming power is available to the user—that extra 16K can only be used with certain pieces of software. But the 1200 has some interesting features, such as a self-diagnostic test program that's built in, and four user programmable format keys. In addition, it's got a sleek new design and all that Atari software—though some third-party cartridges aren't compatible with the new machine yet.





CAT NAP (left) and NINEBALL (below), both from Zimag. On the facing page are shown the new computer and the Atari peripherals which work with it.

By Jules Gilder

The Atari 400 and 800 computers were among the first home computers on the market. While the 400 has pretty well been superseded by better machines at the same price and lower, the 800 has consistently held its own as a fine computer for the money—especially as the retail price has crept lower and lower due to increased competition from Atari's rivals.

At one point, Atari said it would introduce a model 600—a machine somewhere between the 400 and 800 in terms of price, features and memory. The 600 may still be produced someday. Some business analysts think it may eventually replace the 400 in the lineup.

Surprise! Surprise!

Instead of the 600, Atari surprised the industry press with the 1200XL, a 64K home computer designed to go head to head against the Commodore 64 in the marketplace. Atari may have rushed the 1200XL somewhat into production. The computer was first revealed to the press just a few days after the stock of Atari's parent company, Warner Communications, plummeted after a year of strong performance.

At the time there was a certain amount of skepticism about the 1200, especially concerning the price tag which was "under $1,000". This usually translates into a manufacturer's suggested list price of $995, which would have made the 1200 substantially more expensive than the Commodore 64, even assuming retailers' discounts. By the time the 1200 hit the market, Atari had lowered the suggested price to $899, and now it is advertised for as little as $600.

Besides price, those viewing the 1200XL for the first time were openly skeptical about its capabilities vis-a-vis the Commodore 64, and even the Atari 800. Atari spokesmen were quick with assurances that the 1200 was a more advanced unit and more in tune with the needs of the home computer user.

The unit is now on the market but the skepticism remains. The 1200XL begins to look like a repackaged Atari 800 with a few extra bells and whistles hung onto it, and some of the nice features of the 800 eliminated. The documentation is sparse, and although there is no problem loading Atari-made 400- and 800-compatible cartridges, those from third party software manufacturers don't always work.

Looking Good

Cosmetically, the 1200XL is a radical departure from the 800. It has the slim, streamlined look of the 5200 game system. Instead of standard issue Atari beige, the keyboard facing is done in a deeper brown highlighted by chrome, giving the computer a more elegant look than its predecessor. So while the 1200XL is sure to catch your eye in the store, it pays to take a closer look at what it has to offer under the hood. The place to start is with that 64K of RAM.

If you've got an 800 and yearn for that extra 16K, the 1200XL will keep you yearning. Only 48K of RAM are normally accessible, so

that if you're working with BASIC you still have only 48K of RAM available. The pamphlet that accompanies the unit points out that "...the remaining 16K is accessible only with certain software programs." The usefulness of the extra 16K must be limited indeed, because Atari didn't even bother to include it in its memory testing program. The memory self-test that is built into the computer (more on this in a while) only checks the system's ROMs and the first 48K of RAM.

Still, the self-test is a really nice feature that Atari has included in the 1200XL. Diagnostic software is used to check out the computer hardware and let the user know whether it is good or bad. The self-testing feature is called into action by pressing a special key above the keyboard, labeled HELP. Pressing this key brings up a list of tests that the user can select from. Individual tests of the memory, the audio-visual capabilities and the keyboard are included, as is a fourth option that automatically performs all of these tests.

User Friendly Functions

Another nice feature of the new Atari unit is the inclusion of four special function keys that can be operated with both SHIFT and CONTROL to provide a total of 12 functions. These keys are user programmable, but there is no reference to this fact in the user pamphlet. According to the pamphlet, they provide some user friendly features such as one-key cursor movements, turning the audio key-click routine—which sounds every time a key is pressed—on and off, reorganizing the keyboard and switching it to a special international character set, deactivating the computer keyboard (so you can leave the unit on and not worry about someone coming along and ruining your work to date by pressing a few keys) and turning off the output to the screen, which causes the 1200XL to work about 25 percent faster.

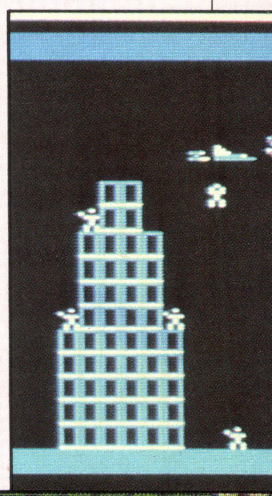
As for the keys' programmability, Atari says they may be programmed if the user is programming in BASIC or some other computer language. To find out how to do it, however, requires a call to an Atari 800 number. (These numbers are: 800/672-1404 in California and 800/538-8543 in the rest of the continental U.S.) An Atari spokesman also says that some Atari-made and third party software may be designed to use the keys for functions other than those they are programmed to do. Any software can override the program for the keys built into the computer.

Stop Action

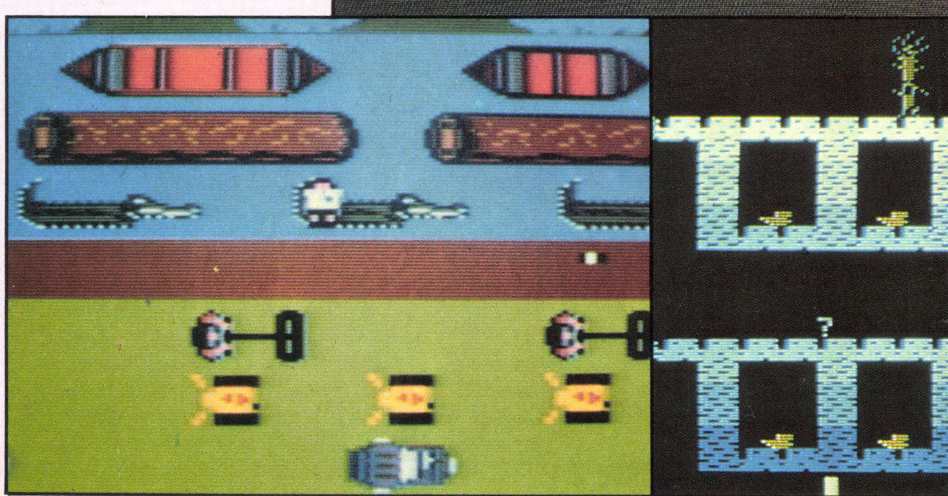
Other features available from the keyboard are the ability to freeze the TV display when a program is being listed by pressing the CONTROL and "1" keys together. In addition, editing keys that allow the user to insert or delete text are provided.

Is the 1200XL really a computer or is it just a glorified game machine with a typewriter keyboard? While the 1200 can be connected to a disk drive, tape recorder and printer—standard classes of computer peripherals—as it comes out of the box, it cannot be programmed unless—as with the 400 and 800—you purchase a separate cartridge that contains the BASIC language. Strangely enough, however, nowhere in the extremely sparse documentation that accompanies this machine is that mentioned. In fact, the documentation doesn't even suggest that the 1200 can be programmed by the user. Instead it says, "It's up to you to decide which ready-to-use software you'll need to take your ATARI 1200XL computer beyond the self-tests." As far as the manual is concerned, the only way to find out about its programmability of the Atari 1200XL computer is by plugging in an Atari 800 BASIC cartridge and seeing that it worked.

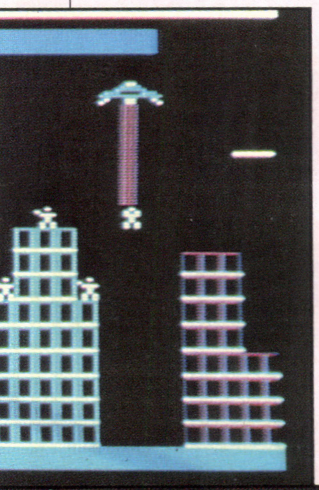
Atari seems

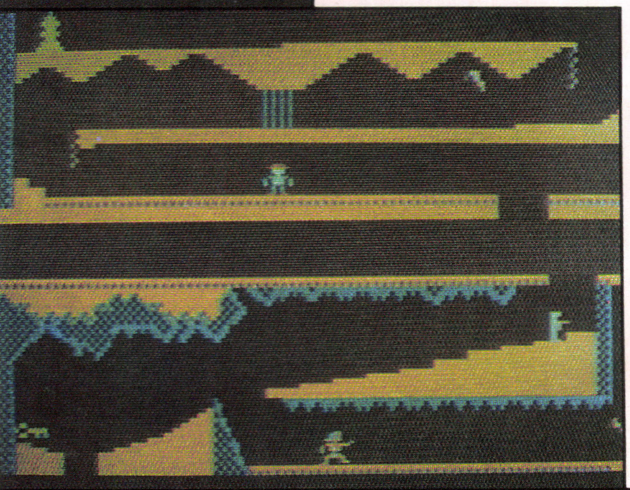


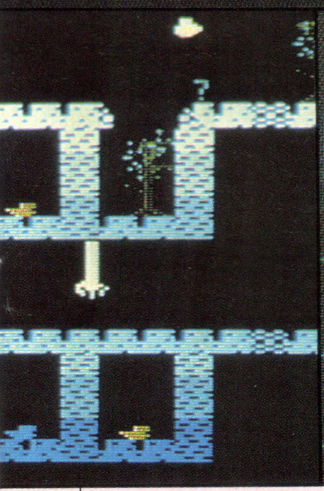


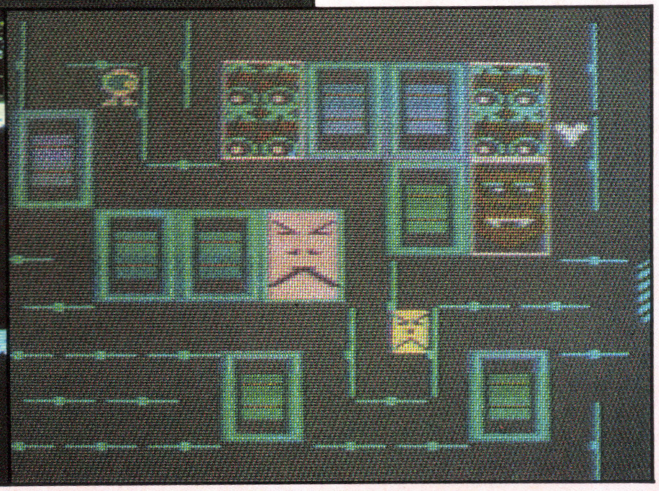


to be pushing this machine as a vehicle to sell their software. But in their rush to capture as much of the software market as they can, Atari has made a lot of its competitors unhappy. They did this by designing the cartridge slot in such a way that many, if not all, of Atari's competitors' 800-compatible cartridges won't work. We tried several cartridges on the 1200XL and found that Atari cartridges such as Video Easel and BASIC worked without problems. But third party cartridges, such as *Shamus* from Synapse Software would not. When inserting the cartridge, it felt as if the connector in the 1200XL was not properly mating with the cartridge. In any case, the screen remained blank.









File Carts

According to an Atari engineer, third party cartridges manufactured from now on *will* be 1200-compatible. As to the existing library of software, the user has two choices. He can either file down the plastic casing of the cartridge enabling the EPROM to make contact with the computer, or remove the EPROM from the plastic casing. The root of the problem is that the 1200XL's cartridge slot has been inconveniently angled, as have the joystick ports, and while Atari has been manufacturing its cartridges to conform to the new configuration, not all third party manufacturers have retooled their machinery.

The Atari cartridges that do work are liable to cause some confusion among new users because of the labeling on the top of the cartridge. When a cartridge is properly plugged in, this writing must be upside down. If someone tries to plug a cartridge in with the writing in the normal direction, he will encounter a lot of problems.

If you're buying the machine to use primarily with disk-based software you'll also have problems. Although several disks work fine, many others refuse to load. Atari says it is up to third party manufacturers to adjust their specifications to the 1200's.

While the 800, the predecessor to Atari's new machine, offered the user a lot of flexibility, the 1200 doesn't. The extra slots that were used for expanding the system on the 800 have been eliminated. So has the right cartridge slot, making any software that used it incompatible. Also eliminated in the new system are the third and fourth joystick connectors, making it less convenient to interface the 1200XL to external devices. While we're on the subject of interfacing, it should be noted that the 1200XL has no standard parallel or RS-232 ports, and all interfacing must be done through the non-standard serial port or through one of the two remaining joystick ports.

Testing, One Two Three

The "manual" that comes with 1200XL is nothing more than a 20-page pamphlet (including the cover), with only half of those pages dealing with the installation and operation of the machine. The text devotes two of those 10 pages to testing out the system, but I guess that's only right because there's nothing else you can do with the unit as it comes out of the box.

Aside from the few really friendly and useful new additions such as the ability to operate special function keys with both the CONTROL and SHIFT keys and the inclusion of the self-diagnostic system, the Atari 1200XL is not an improvement over the Atari 800. The inaccessibility of most third party software from disks to cartridges linked with the difficulty in doing any serious programming makes it a computer that is not geared to any user group at all.□

More 1200-compatible games: Top, PROTECTOR II. Second row, SHAMUS and PHARAOH'S CURSE. Bottom row, PREPPIE, NECROMANCER and DRELBS. All are from Synapse except PREPPIE, which is by Adventure International.

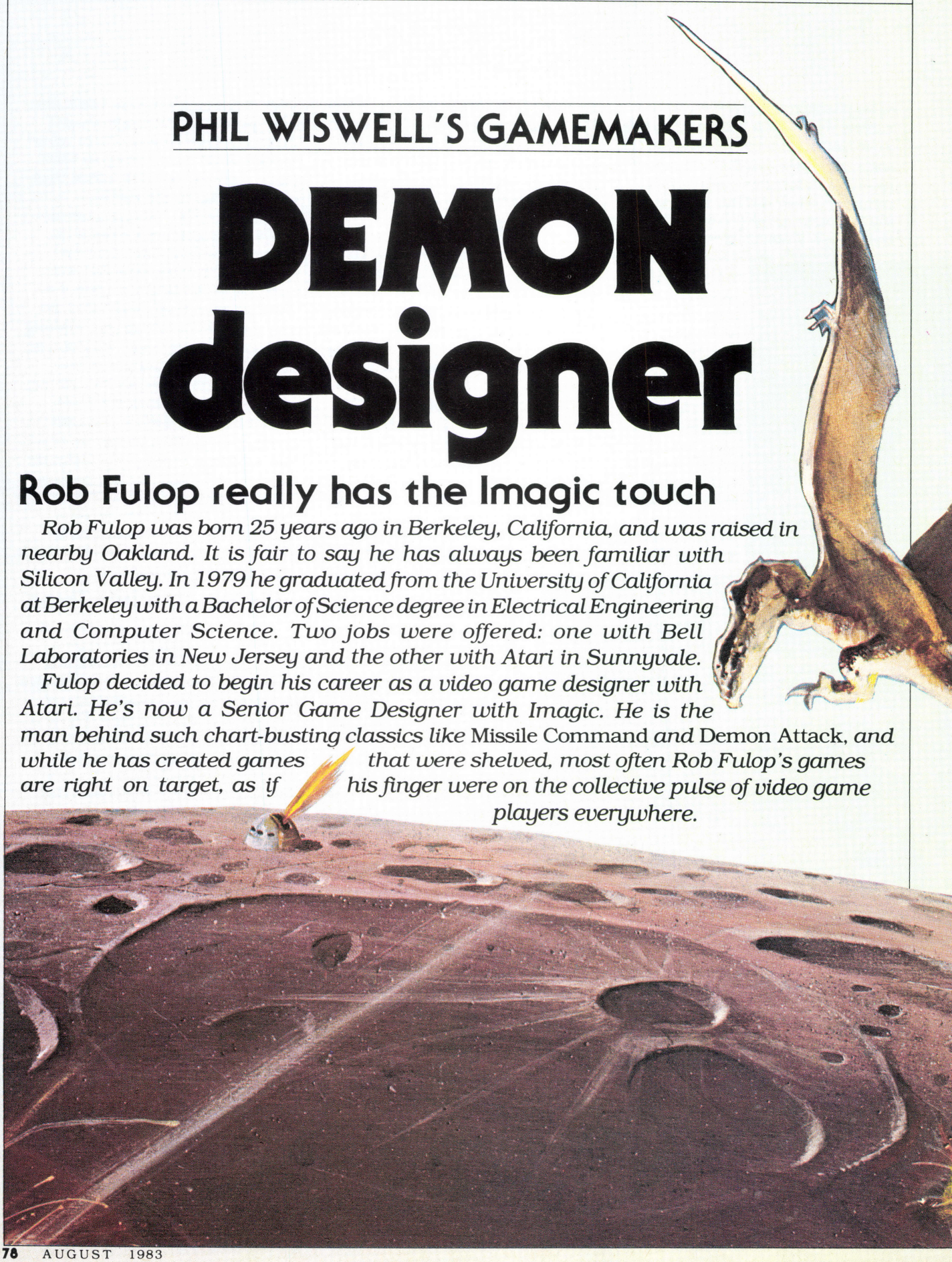
PHIL WISWELL'S GAMEMAKERS

DEMON designer

Rob Fulop really has the Imagic touch

Rob Fulop was born 25 years ago in Berkeley, California, and was raised in nearby Oakland. It is fair to say he has always been familiar with Silicon Valley. In 1979 he graduated from the University of California at Berkeley with a Bachelor of Science degree in Electrical Engineering and Computer Science. Two jobs were offered: one with Bell Laboratories in New Jersey and the other with Atari in Sunnyvale.

Fulop decided to begin his career as a video game designer with Atari. He's now a Senior Game Designer with Imagic. He is the man behind such chart-busting classics like Missile Command *and* Demon Attack, *and while he has created games that were shelved, most often Rob Fulop's games are right on target, as if his finger were on the collective pulse of video game players everywhere.*



Interview by Phil Wiswell

EF: Why did you hide your initials in *Missile Command*?

RF: Why? Oh, I don't know, it was something to do. It was always my contention that people would love to find it, and that people would just get a kick out of that. I remember having huge arguments with Atari managers. They had a problem with my initials, as opposed to an Atari logo.

EF: So you got flack for something that became video folklore.

RF: Well, they've taken the initials out. Now they no longer appear in *Missile Command*. I remember a friend calling me from Atari and asking me where the initials were hidden because they had to take them out. I think a few hundred went out with initials. That's fine with me—a limited edition.

EF: Do you think that college training is necessary for the work you do?

RF: Apparently it isn't, judging by the number of people in the field with degrees in something other than computer science. It doesn't seem necessary to be a college-educated computer programmer to be a game designer.

EF: You say you didn't hang out in arcades?

RF: I wasn't drawn to video games designing because I was an avid video games player. All my life I've been an avid games player—Monopoly, Scrabble, chess, those kinds of games—in fact, I pretty much supported myself in college playing poker. And that's what I would do summers—hang around places like Las Vegas. But I was never into video games.

EF: How did Atari come to offer you a job?

RF: I went down to the job office at Cal during my junior year. I figured I'd had enough summers of playing poker and that it was time to grow up. I learned that Atari was looking for someone to work in the coin-up division on pinball sound. So I called and went down and they gave me a summer job. That was my introduction to the video games field. When I left school the next year with my degree I had a tough decision to make. I could work for Bell Labs or Atari. When I made the decision to go back to Atari, I also decided to get into the consumer division rather than back into coin-op. That's where I met Dennis Koble. [*Editor's note: Dennis Koble was Software Development Manager at Atari and is now VP, Software Development, at Imagic. This is the second time he has been Fulop's boss.*]

EF: What Atari games did you do?

RF: My first one was *Night Driver* on the VCS; then came *Space Invaders* on the Atari 400 and *Missile Command* on the VCS.

EF: What was the working environment like?

RF: I started in the consumer division about two months before Activision was formed, so there were these four people who were very knowledgeable, but were not sharing any of their knowledge with anyone. We had a lot of people like myself who had just started there, who didn't know much about the VCS, really working with no direction. Nobody told me to do *Missile Command*. I just decided that's what I wanted to do. Everyone was in charge of their own projects. You just decided what you wanted to do, went ahead with it, and when you were done you tried to sell it to the marketing department. It was very much like the atmosphere we have at Imagic, in that people have control of the products, of what they are doing.



EF: So you went ahead with *Missile Command* without approval from Atari, even though it was a coin-op?

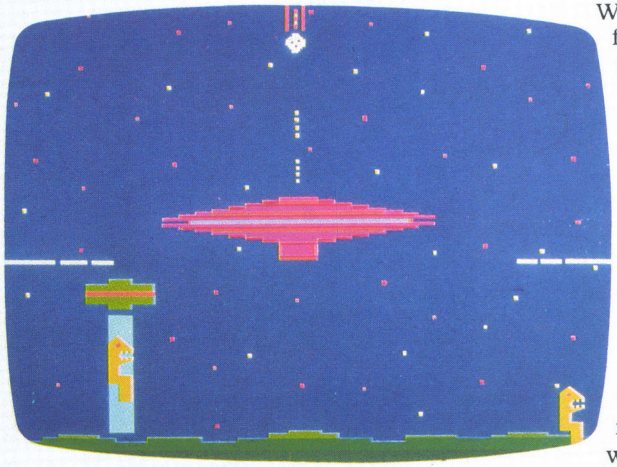
RF: This was before licenses were a big deal. That was the story with *Night Driver*. I saw it in the Atari arcade and I thought I'd like to do it on the VCS. *Missile Command* was a bit different. That came about through a lot of people talking about doing it. That and *Asteroids*. First people were talking just to figure out if the games *could* be done on the VCS. So Brad Stewart and I decided to try. He would do *Asteroids* and I would do *Missile Command*. It was like a challenge.

EF: Most people agree that *Missile Command*

is one of the best coin-op adaptations for the VCS, particularly considering it was done three years ago. Did Atari appreciate your talent?

RF: I don't think so. Not at the time. I think they did later. But at that time there was no feeling that game design was an individual form of creative expression.

EF: Did Bill Grubb organize the Imagic movement?



RF: I think it came about in parallel fashion. Jim Goldberger at Mattel was thinking about doing this type of thing, starting a software company. And Dennis Koble was also thinking about leaving Atari and forming a group of just designers. And I think that Dennis called Bill the day after Jim and Bill had talked. It was just one of those things that happened all at once. But Bill took the role of leader. He made the whole thing happen.

EF: Imagic's first year in the games business was phenomenally successful. There was a story in *The New York Times* last winter that said had Imagic's stock-offering gone through, your share of the company would have been worth "at least $6.8 million." Was that an inflated figure?

RF: That's the article that made me take my name out of the phone book. But, yes, that would have been true had the stock gone public at that time.

EF: Seriously, what would you do with that kind of money?

RF: I'd set myself up so I didn't have to work if I didn't want to, and I might just design software.

EF: *Demon Attack* displayed graphic animation that had not been seen on the VCS before, yet the VCS itself hadn't changed. Clearly, there was enough sophistication in the hardware to produce graphics of such high-resolution as *Demon Attack*. Why didn't we start seeing games like *Demon Attack* in 1977?

RF: Designers just didn't know what to do; they didn't know how to use the hardware. Software has evolved spectacularly since *Combat*. We were talking about that yesterday. If we had plugged in my new game five years ago, people would have said "that's not the VCS", because we've been learning how to do new tricks with the old hardware.

EF: Like what?

RF: They're all in software. For instance, some are new ways of packing data, of finding a way to make a minimum amount of data look good on the screen.

EF: There is no literature on the VCS.

RF: That's right. It's truly as if it were being passed down from father to son, that type of thing. The VCS is an old piece of hardware that is extremely flexible. It's also the type of system that lends itself to having lots of tricks. That's not true of some of the newer systems. On the VCS it seems the better the game is, the more experienced the person who designs it. You can follow a designer's work on the VCS and watch how his work gets better and better, but that doesn't seem to be true of a system like ColecoVision, because the hardware does more for the designer.

EF: It seems a natural assumption that the Rob Fulop who created *Demon Attack* on the VCS also created the Intellivision program. Why is that not true?

RF: When Rob Fulop finished *Demon*



Attack, the last thing he wanted to see for awhile is another demon!

EF: Would you program on Intellivision?

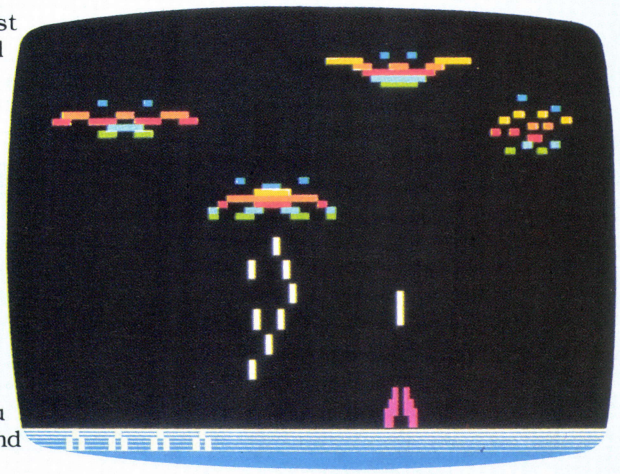
RF: I was planning to, and now it seems I don't see it as a system that has much future.

EF: Do you work strictly on VCS designs then?

RF: I intend to work on ColecoVision and perhaps some of the computer systems. It makes sense for me to work on the VCS right now because I'm good at that and it has a *huge* installed player base.

EF: What will a keyboard for the VCS mean for you as a video game designer?

RF: I'll have to see it. I think it will mean more RAM inside the machine and that will let me write programs with better graphics. Graphics are what make a game stand out. I think people are really into these complex types of games that game designers tend to like. There are a lot of game designers here and at other companies who like these very complex games like *Wizardry*. I don't like a game where the first thing I have to do is read a 20-page manual.

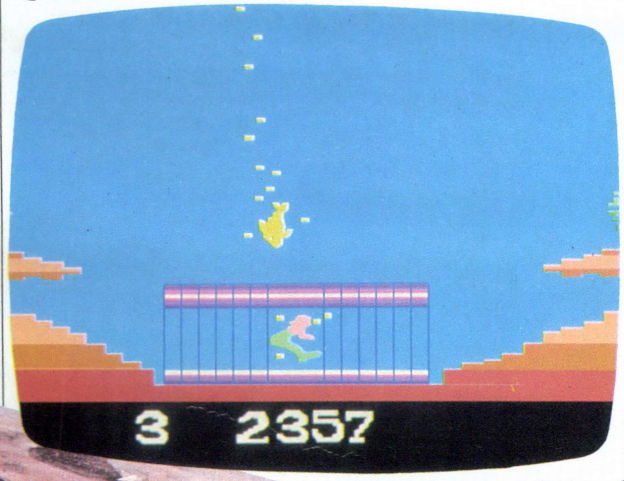


EF: After *Demon Attack* came *Cosmic Ark*, but what have you been working on since then?

RF: I can't really talk about my new games. I've tried to use that memory to create something like a video cartoon. It's like a cartoon that you control. Very pretty and not violent at all.

EF: Do you design concept, graphics and sound effects, as well as write the code for your games?

RF: For the new game I had an artist do all the graphics. In the early days, a figure would just move across the screen in one position, but now we can animate it with a series of ten pictures of the figure in different positions, and an artist can do that much better than I can. But I do everything else. I love doing the sound, and will always do that.



EF: How do you make an idea for a game come to you? Where do you start working?

RF: I always start with what I want the player to feel like when he's playing. For example, I didn't really have the idea for *Demon Attack*, but I wanted a game with a main object of surviving levels, just to see what the next level would be like. And I designed the whole game around that thought.

EF: How long did *Demon Attack* take to create?

RF: Five months.

EF: Can you beat the game?

RF: No. And that is a very frustrating area for me. I figure that I play better than maybe 60 percent of the target audience. But that means 40 percent of the people are going to play better than I do, and that makes it very tough to design games. How can I test a game when it's beyond my level of skill?

EF: Is that why you use the "super kids?"

RF: Right. We have about ten or twelve kids who are very, very good game players. We send them EPROMs and they get back to us in a week or so . . . to make sure the game isn't too easy or too hard. We're sending my new game out today to do what I call "the super kid test." And I'm trying to force everyone around me to do the same thing because these kids are really good. When they get a game, they'll play it until their mothers tell them to stop. They become very good, very quickly.

EF: How do you play-test the initial idea?

RF: This is a very debatable issue, but I don't think you can do market research on kids by putting up story boards and asking them how much fun the games will be. I don't think that kids can tell. I don't think that *I* can tell from the con-

Continued on page 86

THE COMPLETE

...for all Apple computer users — the

ADVANCED OPERATING SYSTEMS has one game for the system in the Adventure category. Company's Pick: *Voyage of the Valkyri*. You are stranded on a mountainous island fighting for your life against giant Scandinavian war birds, all to the tune of Wagnerian operas. The game, which has cartoon graphics, comes complete with blank island maps. **$39.95.** *Address: 4300 W. 62 St., Indianapolis, IN 46268.*

ADVENTURE INTERNATIONAL has 27 games for the system in the Adventure and Arcade categories. Adventure games include *Adventureland, Pirate Adventure, Secret Mission, Voodoo Castle, The Count* and *Strange Odyssey. Eliminator* is one of the Arcade games. Company's Pick: *Curse of Crowley Manor*. It's mystery time as Scotland Yard sends you out to investigate occult-related deaths. **$29.95.** *Address: 155 Sablpalm Dr., Longwood, FL 32750.*

ARTIFICIAL INTELLIGENCE RESEARCH GROUP has one game for the system in the Educational category. Company's Pick: *Eliza*. You can "engage in conversation" with *Eliza* and tell it your problems, according to designer Steve Grumette. Eliza acts like a psychotherapist and offers solutions for what ails you. Available in modifiable or non-modifiable versions. **$25-$45.** *Address: 921 N. La Jolla Ave., Los Angeles, CA 90046.*

ARTSCI has 13 games for the system in the Arcade and Strategy categories. Strategy games include *Apple 21, Craps* and *Reversi*. One arcade choice is *Starmines*. Company's Pick: *Photar*. Playing with joystick, you fend off attacking pulsars as you maneuver around the rings of Saturn and a Black Hole. **$29.95.** *Address: 5547 Satsuma, North Hollywood, CA 91601.*

ARTWORX SOFTWARE CO. has seven games for the system in the Adventure, Educational and Strategy categories. Educational games include *Teacher's Pet* and *Hodgepodge*. In the Adventure category there's *Vaults of Zurich*. For Strategy enthusiasts there's *Bridge* and *Poker Tourney*. Company's Pick: *Strip Poker*. This "R-rated" game pits you and a partner against Suzy and Melissa, two card-playing good losers. The more you win, the more they take off. Oh yes—there's a feminist version too, involving men. **$34.95.** *Address: 150 N. Main St., Fairport, NY 14450.*

AVANT-GARDE CREATIONS has 11 games for the system in the Arcade and Adventure categories. Arcade titles include *Air Traffic Controller, Zero Gravity Pinball* and *Death Race 82. Race for Midnight* is an Adventure game. Company's Pick: *Laser Maze*. You must shoot a laser beam through a series of mirrors. If you correctly predict where the beam will land, you kill the alien. **$29.95.** *Address: PO Box 30160, Eugene, OR 97403.*

BLUE CHIP SOFTWARE has one game for the system which is the Company's Pick: *Millionaire*. Stock market simulation/adventure game that places you on the floor of the stock exchange making deals that seem all too real. **$79.95.** *Address: 19824 Ventura Blvd., #125. Woodland Hills, CA 91364.*

BRAINBANK INC. has 18 games in the Educational category, among them is *Decades and States*. Company's Pick: *Millionwaire*. You are given $10,000 which you must up to a million. There are 42 categories, such as sports, history and explorers, with 35 questions in each, and winnings depend on whether questions are answered correctly and what odds are set. **$34.95.** *Address: 220 Fifth Ave., New York, NY 10001.*

BRODERBUND offers 12 games for the system in the Arcade category. Arcade games include *Red Alert, Apple Panic, Serpentine, A.E., Star Blazer* and *Space Warrior*. Company's Pick: *Choplifter*. Player operates helicopters which must rescue groups of men from exploding barracks and transport them to a safety



GAMER'S GUIDE

biggest Who's Who of computer games

zone. Each barrack contains 16 men. $34.95. *Address: 1938 Fourth St., San Rafael, CA 94901.*

BUDGE CO has two games for the system in the Arcade category, including *Raster Blaster.* Company's Pick: *Pinball Construction Set.* You make your own pinball game on screen with joystick. Create your own obstacles. $39.95. *Address: 428 Pala Ave., Piedmont, CA 94611.*

CALIFORNIA PACIFIC has nine games for the system in the Adventure, Arcade and Strategy categories. *Space Album, Cosmic Mission-Super Invaders* and *Hungry Boy* are Arcade titles. The Strategy area is represented by the intellectually named *Brainteaser.* The Adventure title is the Company's Pick: *Ultima.* In this medieval fantasy gone space age, you travel through the galaxy and run into dragons, dungeons and a princess in distress. $39.95. *Address: 757 A. Russel Blvd., Davis, CA 95616.*

CE SOFTWARE has nine games for the system in the Adventure, Arcade and Strategy categories. Adventure games include *King's Testing Ground* and *The Vampyre Caves.* The Strategy game is *Wall Street.* Company's Pick: *Mission Escape!* You must make it through ten less-than-friendly rooms full of stormtroopers, robots and drones. You are armed with laser pistols and grenades. Designer Donald Brown said only one person has made it through all 10 rooms. $25.95. *Address: 801 73rd St., Des Moines, IA 50312.*

COMPU-TATIONS has one game for the system in the Educational category. A natural for the Company's Pick: *Soccer Math.* Two players take turns at ten different levels of math questions. A correct answer allows the participant's soccer player to kick a goal; a miss and the kicker misses too. $29.95. *PO Box 502, Troy, MI 48099.*

COMPUTER-ADVANCED IDEAS has two games for the system in the Educational category. One Educational game is *Mastermatch.* Company's Pick: *Wizard of Words.* Diverse vocabulary-building exercises include deciphering words that are juggled by a juggler and a hangman-type game played with a fire-breathing dragon. 20,000 word dictionary built-in. $39.95. *Address: 1442A Walnut St., 341, Berkeley, CA 94709.*

CONDUIT has two games for the system in the Educational category, including *Green Globs.* Company's Pick: *Escape.* While learning how to interpret graphs at three different levels, you must stop bank robbers from escaping the city. Using a network of graphs, you can bring the criminal to his knees by setting up blockades. High scores make the honor roll. $45. *Address: PO Box 388, Iowa City, IA 52244.*

DATAMOST has 24 games for the system in the Arcade, Strategy and Adventure categories. Among the Arcade titles are *Snack Attack, Money Munchers, Crazy Mazey, Tubeway* and *Thief.* Adventure titles include *Tharolian Tunnels, Swashbuckler, The Bilestoad* and *The Missing Ring.* For Strategy lovers there's *Computer Gin Rummy, Casino* and *Solitaire & Cribbage.* Company's Pick: *Mating Zone.* An unusual arcade-style game in which enemy aliens meet, mate and reproduce right before the players' eyes. The result, of course, is a second generation of aliens—who are even deadlier than the older generation! $29.95. *Address: 8943 Fullbright Ave., Chatsworth, CA 91311.*

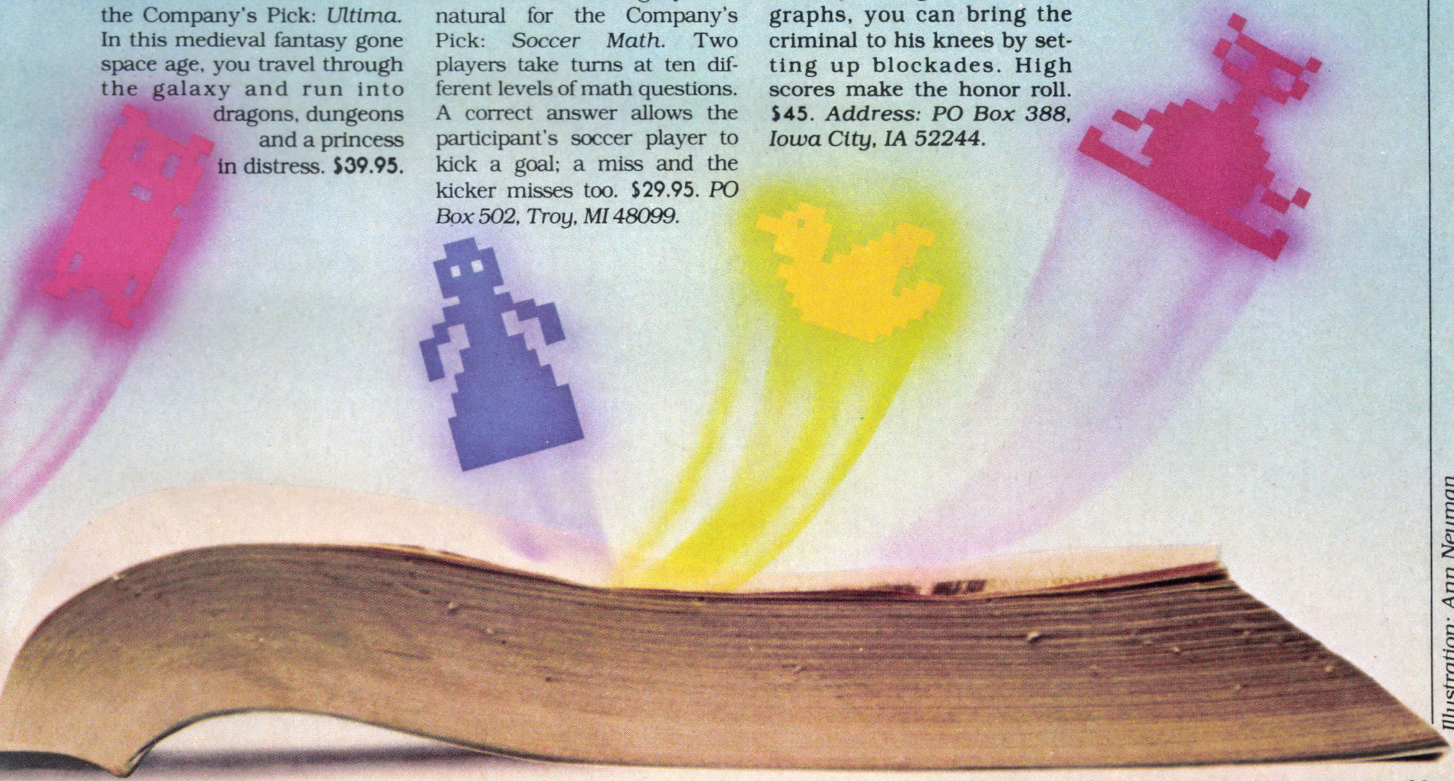


Illustration: Ann Neuman

DATASOFT has eight games for the system in the Arcade and Adventure categories. For Arcade afficionados there's *Moon Shuttle, Canyon Climber, Bruce Lee* and *Fathoms 40*. In the Adventure realm the company offers *Sands of Egypt* and *Dallas*. Company's Pick: *Zaxxon*. Home computer version of the Sega arcade hit features the familiar 3-D graphics, scrolling screen and the deadly robot: Zaxxon. $39.95. *Address: 9421 Winnetka Ave., Chatsworth, CA 91311.*

DON'T ASK COMPUTER SOFTWARE has three games for the system in the Strategy category. Two Strategy games are *Word Race* and *Claim To Fame*. Company's Pick: *Abuse*. This program turns your computer into Don Rickles. Through interfacing, you insult the computer and it insults you back. Often you can't log out until the machine decides you've taken enough abuse. $19.95. *Address: 2265 Westwood Blvd., Suite B 150, Los Angeles, CA 90064.*

DYNACOMP has 26 games for the system in the Strategy, Arcade and Educational categories. Among the Strategy titles are *Poker Party, Blackjack Coach, Valdez* and *Space Lanes*. In the Arcade area there's *Space Tilt*. Educational titles include *Hodge Podge* and *Spell It*. Company's Pick: *Black Hole*. Visual simulation of the problems associated with closely observing a small black hole. The object is to enter a defined close orbit about the hole, maintain it and exit before your fuel is spent. $19.95. *Address: 1427 Monroe Ave., Rochester, NY 14618.*

EDUCATIONAL ACTIVITIES has seven games for the system in the Educational category. Among the learning games are *Annam, Compusolve, Crypto,* ***Math Baseball*** **and** ***Math Invaders*****. Company's Pick:** *Dragongames*. At one end of the screen is a fire-breathing dragon, at the other—you. Words are in the center and you have to name the type of word it is—adjective, noun, etc.—or move one step closer to the dragon. $49. *Address: 1937 Grand Ave., Baldwin, NY 11510.*

EDUTEK has 35 games in the Educational category. Educational titles include *Arithmetic-Tac-Toe, Brain Teaser, What Was That Word* and *Game of Synonyms and Antonyms*. Company's Pick: *Alien Contact*. Memorization game finds players on an alien landscape attempting to interpret symbols in order to establish communication with extra-terrestrial race. $20. *Address: 415 Cambridge 14, Palo Alto, CA 94306.*

EDU-WARE has six games in the Strategy category for the system. Among the brain teasers are *Prisoner 2, Empire I: World Builders* and *Empire II: Interstellar Sharks*. Company's Pick: *Terrorist*. Today a game, tomorrow a reality. The program simulates the confrontation between terrorist and authority down to the last bewildering detail. Success or failure rides on your ability to assimilate given data and comprehend the issues involved. $29.95. *Address: PO Box 22222, Agoura, CA 91301.*

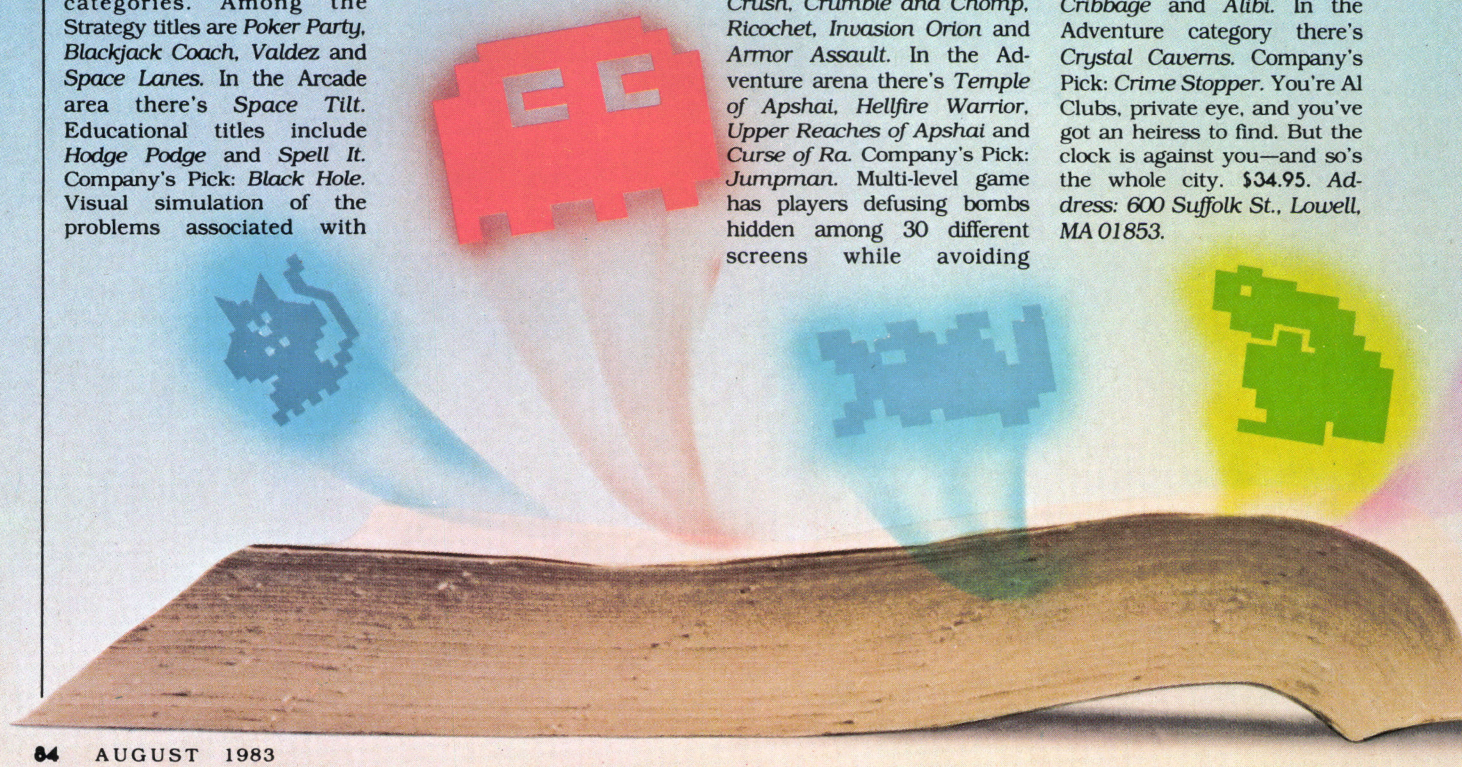
ELECTRONIC COURSEWARE SYSTEMS has one game in the Educational category which is obviously the Company's Pick: *Ear Challenger*. Simon-style game asks players to repeat an increasingly difficult set of musical notes tone for tone. $39.95. *Address: 309 Windsor Rd., Champaign, IL 61820.*

EPYX has 22 games in the Adventure and Arcade categories for the system. Among the Arcade titles are *Crush, Crumble and Chomp, Ricochet, Invasion Orion* and *Armor Assault*. In the Adventure arena there's *Temple of Apshai, Hellfire Warrior, Upper Reaches of Apshai* and *Curse of Ra*. Company's Pick: *Jumpman*. Multi-level game has players defusing bombs hidden among 30 different screens while avoiding vampire bats, falling bombs and changing landscapes. $39.95. *Address: 1043 Kiel Court, Sunnyvale, CA 94086.*

FIRST STAR SOFTWARE has one Strategy game for the Apple. In *Bristle*, Peter the Painter attempts to paint all the rooms in a five-story building the same color in spite of the Bucket Chucker and his cohorts. **Price unavailable.** *Address: 22 East 41st St., New York, NY 10017.*

GEBELLI SOFTWARE has nine titles for the system in the Arcade category. Among the Arcade games are *Firebird, Neptune, Laser Silk, Phaser Fire* and *High Orbit*. Company's Pick: *Ruskie Duck*. Caught in the enemy's embassy, you must quickly rummage through rooms and crates to find the MX-Missile plans before the villains track you down. $29-$34. *Address: 1787 Tribute Rd., Suite G., Sacramento, CA 95815.*

HAYDEN has 19 games in the Arcade, Adventure and Strategy categories. Among the Arcade titles are *Shuttle Intercept, Laser Bounce* and *Bulldog Pinball*. Strategy games include *Reversal, King Cribbage* and *Alibi*. In the Adventure category there's *Crystal Caverns*. Company's Pick: *Crime Stopper*. You're Al Clubs, private eye, and you've got an heiress to find. But the clock is against you—and so's the whole city. $34.95. *Address: 600 Suffolk St., Lowell, MA 01853.*



HIGHLANDS has six games for the system in the Arcade and Adventure categories. Among the Adventure titles are *Oldorf's Revenge, Money's Curse* and *The Tarturian.* Arcade games are *Cosmic Combat* and *Goblins.* Company's Pick: *Creature Venture.* Your kindly uncle has left you a haunted castle, and it's up to you to de-spook the place and claim the hidden treasure. $24.95. *Address: 14422 SE 132nd St., Renton, WA 98056.*

INFOCOM has eight games in the Strategy category for the system. Among the skill-demanding titles are *Zork I, Starcross, Suspended* and *Deadline.* Company's Pick: *Planetfall.* Text game finds players space-wrecked on an alien planet that is civilized but apparently deserted. Players have up to 10 days to solve the puzzles, stop the planet from plummeting into the sun and save the population. $39.95. *Address: 55 Wheeler St., Cambridge, MA 02138.*

INNOVATIVE DESIGN SOFTWARE has four games for the system in the Arcade category. Games include *Trick Shot* and *Juggler.* Company's Pick: *Pool 1.5.* If you're not yet up to Minnesota Fats' level, you can practice 8-Ball, 9-Ball and Rotation with this pool simulation. $34.95. *Address: PO Box 1658, Las Cruces, NM 88004.*

INSOFT makes three games for the system in the Arcade category. Two Arcade games are *Zargs* and *Grapple.* Company's Pick: *Spider Raid.* Got insectphobia? No motels for these little fellas. The bugs attack and you've got to repel them as best you can. $29.95. *Address: 10175 SW Barbur Blvd., 202B, Portland, OR 97219.*

INTERNATIONAL SOFTWARE MARKETING LTD. has one game for the system. Company's Pick: *Prism.* Story game features text, graphics and sound effects offering clues to the location of three valuable keys. $19.95. *Address: 120 E. Washington St., Syracuse, NY 13202.*

J & S SOFTWARE has two games for the system in the Educational category. Company's Pick: *The Vocabulary Game.* Actually a baseball game, players play up to three innings, getting single, double or triple plays for words guessed correctly. Best scores go to Hall of Fame. *The Antonym Game* works the same way. $29.50. *Address: 140 Reid Ave., Port Washington, NY 11050.*

KRELL has six games for the system in the Strategy category. Among the Strategy titles are *Connections, Isaac Newton & F.G. Newton* and *Odyssey In Time.* Company's Pick: *Botticelli.* You teach the computer how best to interrogate opponents in order to discover which historically famous men and women are being thought of. $34.95. *Address: 1320 Stony Brook Rd., Stony Brook, NY 11790.*

LGS COMPUTERWARE has two games for the system in the Strategy category: *Acey-Deucey* and *Crossword Magic.* Company's Pick: *Crossword Magic.* Crossword puzzle program allows you to design your own game by supplying words which the computer incorporates into a crossword puzzle matrix. $49.95. *Address: 1589 Fraser Dr., Sunnyvale, CA 94087.*

LIGHTNING SOFTWARE has one game for the system in the Educational category. Company's Pick: *MasterType.* Zap the enemy word by typing in the correct version or get zapped yourself. Game is a typing instructional program featuring 18 progressive lessons. $39.95. *Address: PO Box 11725, Palo Alto, CA 94306.*

LOGICAL CHOICE has one game for the system in the Adventure category which is the Company's Pick: *Castles of Darkness.* D&D-style game makes you a brave warrior attempting to rescue a fair princess from the evil wizard Grimnacht. Sound plays as important a role as sight, as you must be listening for such things as coins dropping and birds flapping. $34.95. *Address: 1700 Reisterstown Rd., Baltimore, MD 21208.*

MATTEL has six games for the system in the Arcade category. Among the Arcade releases are *Lock 'n' Chase, Night Stalker, Space Battle* and *Heavy Artillery.* Company's Pick: *BurgerTime.* Scamper over hamburger ingredients and drop them onto the plates below while avoiding Mr. Hotdog, Mr. Egg and Mr. Pickle in this adaptation of the arcade hit. $30. *Address: 5150 Rosecrans Ave., Hawthorne, CA 90250.*

MICRO FUN has nine titles in the Arcade and Adventure categories. In the Arcade line there's *Mad Venture, Peeping Tom, Roach Hotel* and *Dog Fight II.* Adventure games include *Palace in Thunderland* and *Ming's Challenge.*

Continued on page 96

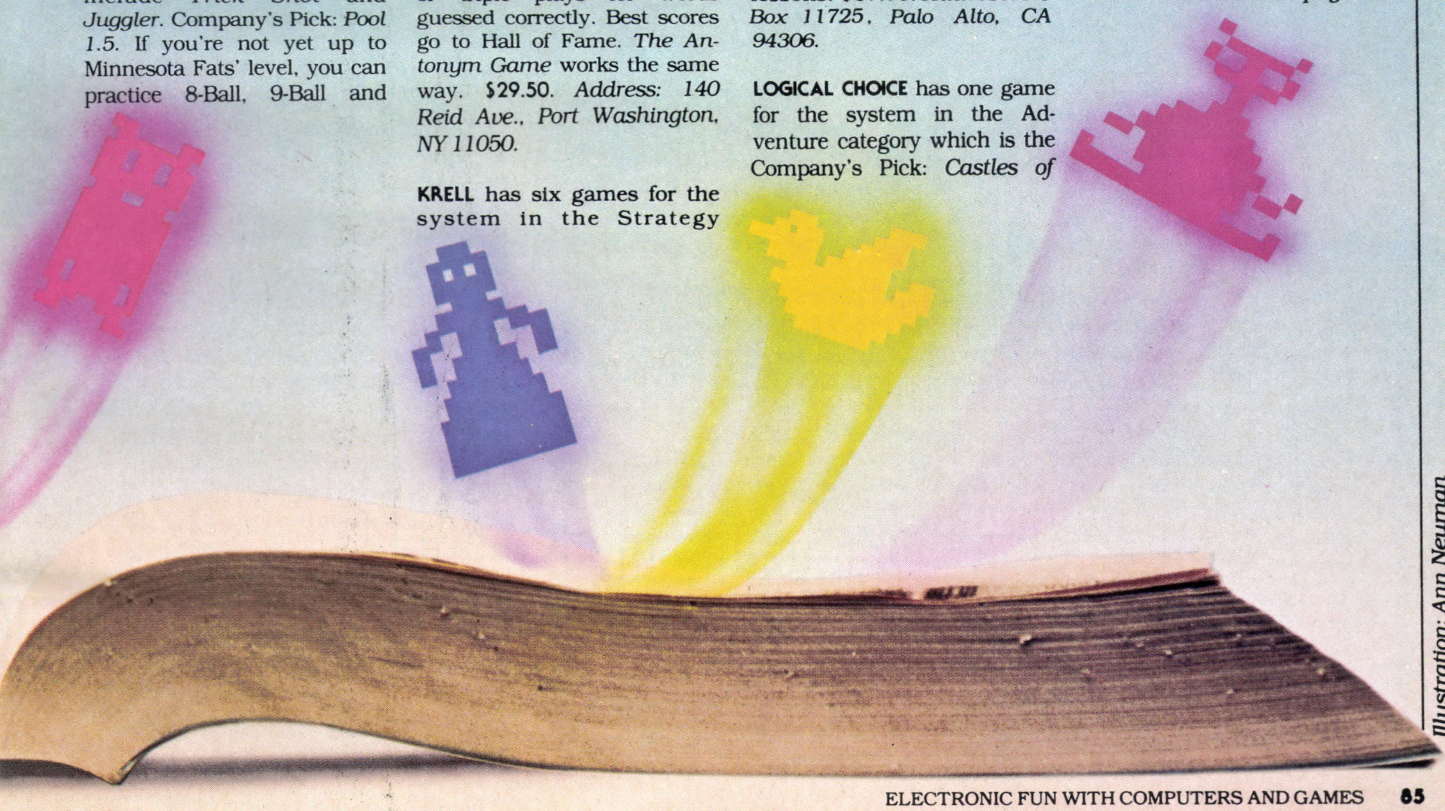


Illustration: Ann Neuman

GAMEMAKERS

Continued from page 81

cept whether or not the game will be fun to play. I can tell a kid that my new game will let him control a cartoon, but he won't know if he thinks it's fun until I give him a game that's 90 percent finished to actually play with. I look on this as a real craft.

EF: Can you recognize style in a video game?

RF: I think you can. It's a combination of graphics, sound and animation and it's pretty subtle, but a designer leaves his mark. For example, anything I've done uses a lot of luminances—that is, objects are not one solid color. They start out, say, light blue at the top and get gradually darker towards the bottom. Dave Crane, on the other hand, always uses solid colors in his objects. Also, he always does things in a very cartoon-like way. I pay a great deal of attention to the way an object moves. In my games an object will never move at a consistent pace. It will always speed up and slow down.

EF: When I visited Imagic one year ago, I think you had six designers working in a single room. How many designers do you have now, and what's the atmosphere like?

RF: We have about 30 designers, and the atmosphere has grown more towards people working in their offices. But we try to make the working environment as conducive to creativity as possible. A lot of us get ideas at all times of the day and night, and this place never closes. When I've been here working until three o'clock in the morning, it's just as crowded as it is during the day. People work at different hours.

EF: Which of your own creations, if any, do you enjoy playing?

RF: Let's put it this way: If you made me play one of my own games for an hour, I would probably pick my new one. It's not that I don't think my games are good, but I'm tired of the graphics, I'm tired of the sounds—every little motion in the game is mine. I know what's going to happen. That's why I force other people to play my games, so I can see if they are fun or not.

EF: What's going on with video game design these days?

RF: I think players are starting to get bored with games where you have to shoot all the moving objects, games like *Space Invaders*, *Galaxians*, or *Missile Command*, where you have to shoot every target on screen. I think game designers are getting bored with that, too. I see a trend toward games where you have more options as a player and you're putting your character through a series of adventures. Boredom can be a problem. Since I've begun to take video game design very seriously—since I've helped form a company and have a vested interest in what's going on—I take it much more seriously than I did at Atari. And a lot of the fun has gone out.□

MUSIC for VIDEO GAMES

A NEW DIMENSION IN THE VIDEO GAMES EXPERIENCE

ADVENTURES IN AUDIO

Music for Video Games is the brainchild of Ethan Fein, a composer and video fanatic who's been searching for better scores and bigger thrills from his home video games.

He's put together two unique tapes; ninety minutes of contemporary music on *each* tape, one tape created especially for use with Space Battle Games, the other for use with Munchy Games.

Ethan's music makes your games more exciting. Its hard driving rhythms get you in a winning groove and keep you there. The tapes sound great alongside any video system you've got. And you *will* score better.

These tapes are only available from Ethan's private stock, so fill out the coupon below and order *now*.

(For a free earful of what you'll be getting, dial 212 795-0560.)

PLEASE SEND ME THE FOLLOWING CASSETTES:

____ MUSIC FOR MUNCHY VIDEO GAMES @ $9.95 $____

____ MUSIC FOR SPACE BATTLE VIDEO GAMES @ $9.95 $____

____ SET OF BOTH @ $18.90 $____

FREIGHT, HANDLING & SALES TAX INCLUDED. SEND CHECK OR MONEY ORDER TO: EUCALYPTUS RECORDS, SAMOSET BUILDING, 128 SINGLETON ST., WOONSOCKET, R.I. 02895

ALLOW 6-8 WEEKS FOR DELIVERY

NAME

ADDRESS

CITY/STATE/ZIP

FIRST SCREENING:

SPIDER

We're waiting to discover you. Send us a program that you've written and maybe we'll send you $100. Each month in First Screening *we print a program one of our readers has written. If you think you have hidden talent as a game designer and you have a game you feel deserves recognition, send it to us. Be sure to let us know which system it's for and to include the complete computer printout. For more information on how to enter,* *see p. 86.*

This month's winner is Robert Alonso, a 19-year-old student at Rutgers University in Newark, NJ. Robert taught himself programming on the VIC-20, and is devoting his current efforts to learning how to get more graphics and gameplay out of the VIC's built-in BASIC. Spider *was his first game program.*

The Game

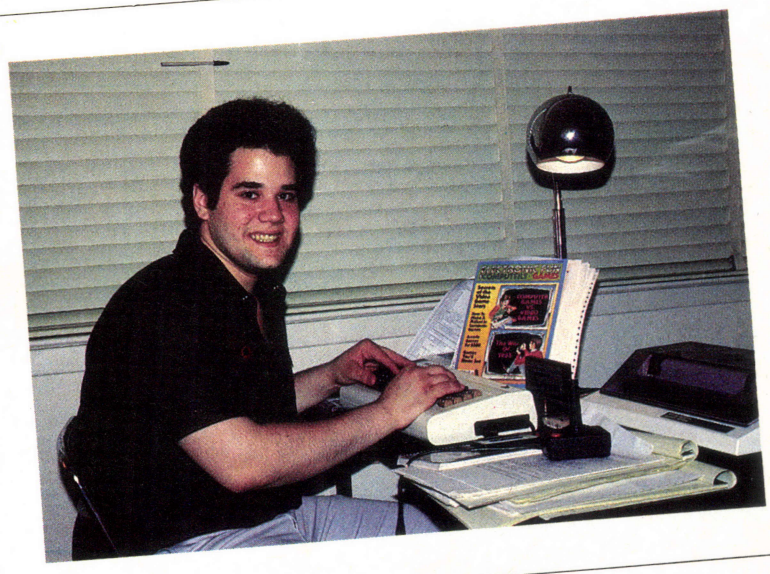
Spider is a fun and colorful game in which you must move a sneaky spider around the screen to gobble up diamonds. There are three screens of increasing difficulty that the spider must clear, but beware—the spider's chances to clear a screen are almost impossible. In each screen there are 20 explosive traps set up by miners who would like the pesty spider gone forever. Hitting these traps means the instant death of one of your three spiders. The game becomes increasingly difficult. With each 100 points that you accumulate, 20 more explosive traps appear randomly around the screen. The game's special features are that it keeps track of the highest score, plays a demonstration game if left unattended for a while and can be played with either a joystick or the keyboard.

Scoring

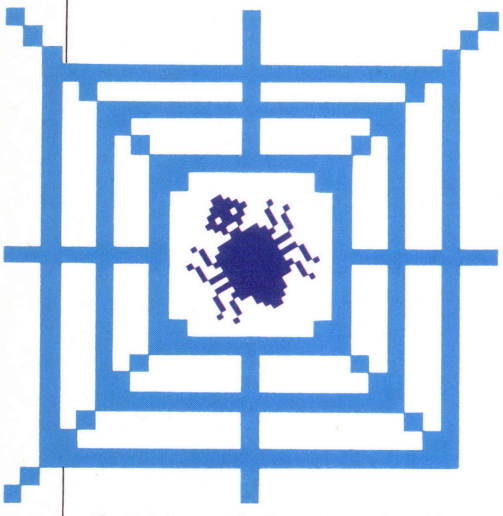
You score points by moving the spider over the multi-colored diamonds. In the first round each diamond is worth five points, in the second round each is worth 10 points and in the last each is worth 20 points. You can scroll off the screen in any direction and appear on the other side going in the same direction. The scrolling can be used to your advantage in collecting diamonds, because it often makes it easier to avoid explosive traps.

Strategy

Don't rush around the screen. There is no penalty for playing slowly, and you'll do much better if you do—the chance of running into ex-



Robert Alonso, author of SPIDER



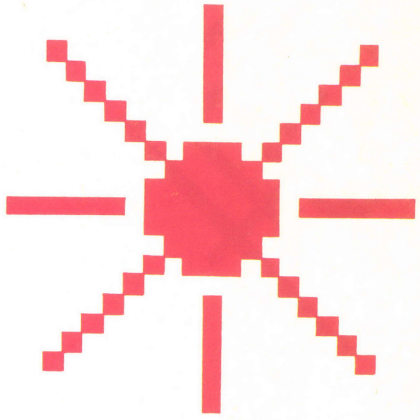
plosive traps that are just about to appear on the screen is diminished if not totally eliminated. Also, keep your eye on the score. That way you'll know exactly when more mines are about to appear. (If you're on your first screen and your score is 95, once you gobble another diamond 20 more traps will appear.)

If you find yourself surrounded by traps with no possible direction in which to move, don't despair! Just hit the fire button on your joystick or the F7 key on your keyboard and blow up all the traps and diamonds within one space of your spider. This hurts your score, though, and can even put you in a multiple of 100 again. In the first screen you lose 20 points for using the explosion, in the second 40 and in the third 60.

Program Modifications

Almost anything can be modified if you have both the book included with your VIC (*Personal Computing on the VIC-20*) and the Programmer's Reference Guide. For example, the difficulty of the game can be changed by changing the 20 in line 300 of the Spider II listing to any number of mines which you want to appear.

Experimenting with the program is recommended, not only because it will lead you to a better understanding of how the program works, but also because it enables you to recreate the game in a form which is more enjoyable to you. Each section of the program is carefully labeled so it should not be too difficult for you to know what each section does and to find a way to modify it.



Translating this program to other computers should not be too difficult, as long as you know the screen memory locations and how to put a graphic character, such as a diamond, on the screen.

Type the "Spider I" section, save it, then type "Spider II."

In order for us to consider your entry, we need the following items: a complete computer program, a brief game description, photographs or drawings of the graphics, a picture of you and a diskette or cassette of the game. Send it all to: First Screening, Electronic Fun, *350 East 81st St., New York, NY 10028. Include your phone number so we can reach you.*

SPIDER I

```
100 REM*******************INTIALIZATION*********************************
110 S=36878:S1=36876:S2=36877:X=-1
120 POKE36879,171
130 A$="■■     ♦                    "
140 B$="    ♦                       "
150 C$="   ♦                        "
160 D$=" ♦                         "
170 E$=" ♦    ♦♦   ♦ ♦♦   ♦♦♦ ♦♦  "
180 F$="  ♦  ♦ ♦ ♦ ♦ ♦ ♦ ♦    ♦ ♦"
190 G$="    ♦ ♦♦   ♦ ♦ ♦ ♦♦   ♦♦  "
200 H$="    ♦ ♦    ♦ ♦ ♦ ♦    ♦ ♦"
210 I$="   ♦   ♦    ♦ ♦♦   ♦♦♦ ♦ ♦"
220 J$=" ♦                         "
230 K$="♦■                         "
240 L$="CREATED BY,"
250 REM*****************SCREEN #1 SET-UP*****************************
260 PRINT"■■■■"
270 PRINTA$
280 PRINT"■"B$
290 PRINT"■"C$
300 PRINT"■"D$
310 PRINT"■"E$
320 PRINT"■"F$
330 PRINT"■"G$
340 PRINT"■"H$
350 PRINT"■"I$
```

```
360 PRINT"■"J$
370 PRINT"■"K$
380 POKE38822,15:POKE8102,87
390 POKE38541,10:POKE7821,86
400 PRINT"■■■■■";:FORJ=1TO11:PRINTMID$(L$,J,1);:POKES,10:POKES1,223
410 FOR0=1TO20:GOSUB770:NEXTQ,J
420 FORL=8119TO8102STEP-1
430 POKEL,86:POKEL+30720,10:POKES,10:POKES1,219
440 X=X+1:IFX=0THEN460
450 GOSUB720
460 GOSUB770:POKEL,32:NEXTL
470 REM*****************BOOM SOUND ROUTINE*****************************
480 POKES2,222:FORY1=15TO0STEP-1
490 POKES,Y1:FORZ1=1TO100:NEXTZ1,Y1
500 GOSUB770
510 REM*****************PAUSE LOOP*************************************
520 FORPA=1TO200:NEXT
530 CLR
540 REM*****************SCREEN #2 SET-UP*******************************
550 PRINT"■     ■INSTRUCTIONS■"
560 PRINT"■■1.■JOYSTICK OR              KEYBOARD         J"
570 PRINT"                    |"
580 PRINT"      BLAST       N-+-M        ■F7■"
590 PRINT"                    ■|"
600 PRINT"                   ■SPACE■"
610 PRINT"■2.■SPIDER EATS DIAMONDS"
620 PRINT"     #1: 5 POINTS/◆"
630 PRINT"     #2:10 POINTS/◆"
640 PRINT"     #3:20 POINTS/◆"
650 PRINT"■■3.■AVOID MINES OR LOSE     SPIDER AND POINTS."
660 PRINT"■■4.■IF TRAPPED-BLAST!       -COSTS POINTS!"
670 REM*****************SPIDER II LOADER*******************************
680 PRINT" ■■HIT ANY KEY TO BEGIN■"
690 GETZ$:IFZ$=""THEN690
700 PRINT"■■■■■
```

```
240 IFE5=SETHEN280
250 FORE6=E5TOE5+T:POKEE6+CC,6:POKEE6,90:POKES1,225:NEXT
260 FORE7=E6TOE6+T:POKEE7+CC,7:POKEE7,90:POKES1,223:NEXT
270 SD=E7:GOTO180
280 GOSUB790
290 REM**************************MINE SET-UP**************************
300 FORY=1TO20:MC=INT(RND(1)*508)+SF:POKEMC+CC,15:POKEMC,87:NEXT
310 REM************************PLAYER SET-UP************************
320 POKEL+CC,10:POKEL,86
330 REM**********************JOYSTICK READ**********************************
340 POKE37154,127:P=PEEK(37152)AND128:J0=-(P=0)
350 POKE37154,255:P=PEEK(37151):J1=-((PAND8)=0)
360 J2=-((PAND16)=0):J3=-((PAND4)=0):FB=-((PAND32)=0)
370 IFJ0THEND=D+1:DS=DS+8:X5=1
380 IFJ1THEND=D+22:DS=DS+16:X5=1
390 IFJ2THEND=D-1:DS=DS+12:X5=1
400 IFJ3THEND=D-22:DS=DS+15:X5=1
410 IFFBTHENGOSUB590
420 REM**********************KEYBOARD READ**********************************
430 K=PEEK(197):IFK=36THEND=D+1:DS=DS+8:X5=1
440 IFK=32THEND=D+22:DS=DS+16:X5=1
450 IFK=28THEND=D-1:DS=DS+12:X5=1
460 IFK=20THEND=D-22:DS=DS+15:X5=1
470 IFK=63THENGOSUB590
480 REM**************************PLAYER MOVES**************************
490 X6=X6+1:IFX6>100ANDX5=0THENGOSUB760
500 REM      ********************SCROLL FORMULA********************
510 POKEL,32:IFL+D<SFTHENL=L+463:D=-1
520 IFL>SETHENL=L-484
530 IFPEEK(L+D)=87THENRESTORE:GOTO610
540 IFPEEK(L+D)=90THENPO=PO+IN:GOSUB740
550 POKES,10:POKES1,200+DS:L=L+D:POKEL+CC,10:POKEL,86:GOSUB790:DS=0
560 IFPO/100<>0ANDPO/100=INT(PO/100)THEN300
570 D=0:GOTO340
```

READY.

```
580 REM**********************DETONATION ROUTINE**********************
590 FORY2=1TO9:READA:POKEL+A,32:NEXTY2:RESTORE:PO=PO-((M+1)*20):GOSUB650:GOSUB73
0:RETURN
600 REM**********************EXPLOSION ROUTINE**********************
610 PRINT"■":POKEC,42:D=0:M=M+1:IN=IN*2:IFM<3THENPO=INT(PO/100)*100
620 FORX1=1TO37
630 READB:L1=L+B:POKEL1+CC,7:POKEL1,58:NEXTX1:GOSUB650:RESTORE:GOTO130
640 REM**********************BOOM SOUND ROUTINE**********************
650 POKES2,222:FORY1=15TO0STEP-1
660 POKES,Y1:FORZ1=1TO100:NEXTZ1:NEXTY1
670 GOSUB790:IFM=3THEN810
680 RETURN
690 REM*********DATA FOR DETONATION,EXPLOSION AND AUTO-GAME*********
700 DATA0,22,23,1,-21,-22,-23,-1,21,-44,-43,-42,-20,2,24,46,45,44,43
710 DATA42,20,-2,-24,-46,-45,66,3,-3,-66,-67,25,65,-25,67,19,-19,-65
720 REM**********************SCREEN SCORE DISPLAY**********************
730 FORX2=SCTOSC+T:POKEX2+CC,0:POKEX2,160:NEXTX2
740 PRINT"■■■   SPIDER SCORE:";PO:RETURN
750 REM**********************AUTO-GAME ROUTINE**********************
760 READD:DS=DS+8:IFD=-44THENRESTORE
770 RETURN
780 REM**********************SOUND-OFF ROUTINE**********************
790 POKES,0:POKES1,0:POKES2,0:RETURN
800 REM**********************HIGH SCORE/NEW GAME**********************
810 GN=GN+1:IFPO>HSTHENHS=PO
820 PRINT"■■■"PO,"HIGH:";HS:FORZ8=1TO8500:NEXT:X5=0:X6=0:RESTORE:IFGN>15THENCLR
830 GOTO110
```

READY.

ASSEMBLER

Continued from page 45

perform mathematical and logical calculations.

"Memory! CPU! Mailboxes! Registers! Why do I need to know this to program?"

Don't give up, we're almost there! The reason we've told you about memory and registers is because they are mostly what machine language instructions talk about. Now you know enough to look at a very simple assembler program, written for a Z-80 processor. The program uses two registers to add the numbers three and five and stores the result (eight, according to my fingers) in memory. Notice that the program has two sides. On the left of the semicolons is the program itself. On the right of the semicolons are "comments" that have no effect on the computer, but are just written there by the programmer to remind himself what each instruction is doing. Read the comments here and they'll explain what's going on. (The words between the lines are the commands as they would be written in assembler language. The paragraphs underneath are explanations of what each command tells the computer to do and what the end result of that command will be. They are *not* part of the program itself.)

MVI B,3; MVI is a kind of "MOVE" command. It moves some data into one of the CPU's registers. Here the number 3 is being moved into the register called "B". Remember that the CPU generally has to get numbers into registers before it can do arithmetic on them.

MVI A,5; Here we move the number 5 into register "A". Notice that the thing on the left of the comma, the register A, is where the thing on the right of the comma, the 5, is going. That right-to-left movement is common to most assembler languages. It's like in BASIC when you say LET V = 10.

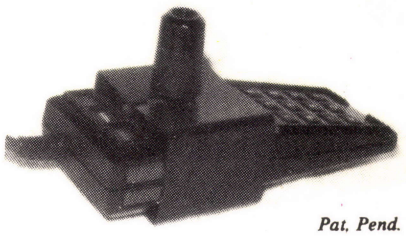
ADD B; A has 3 in it and B has 5. Now we add the contents of the two registers. We don't have to mention the "A" register, because in the Z-80 the ADD instruction always adds something to the "A" register. All we have to say is that it's "B" that's being added. (There are other registers in the Z-80 besides the "A" and "B".)

STA 100; "STA" means store register "A". We store the result of the ADD operation into the hundredth memory mailbox.

There you have it! An assembler program. Not so terrible, is it? Load a couple of registers, add them together and move the result out to memory. What could be easier? When the program is all written, the assembler assembles it, and it becomes four machine language instructions, ready for the CPU to process.

Here's another example, a two

CONTROL - GUIDE™



Pat. Pend.

FOR YOUR ATARI 5200™

- Converts your ATARI 5200™ Control Stick to 4-Way Control for PAC-MAN™ and other Games.
- Attaches Easily.
- Makes Games Easier to Play.
- Only for Games that require 4-Way Control, i.e. (Up, Down, Left, Right).

SEND **$6.99** Per Pair, Plus $1.00 for Postage & Handling

ENTERTAINMENT SYSTEMS

P.O. BOX 376, OAKHURST, NJ 07755

*NJ Residents add 6% sales tax

MasterCard Check or Money Order Visa & Mastercard accepted VISA

Name _____

Address _____

City _____

State _____ Zip _____

Card # _____

Expiration Date _____

Write for Distributor information

EASI-GRIP™

GET A BETTER GRIP ON YOUR GAME

WATCH YOUR SCORE INCREASE WITH THE *ULTIMATE* JOYSTICK ATTACHMENT FOR THE

COLECOVISION™



PAT. PEND.

Replace the flat control disk with our EASI-GRIP™, it's so comfortable you won't want to put it down. We guarantee it to be the most comfortable feel of any attachment joystick you can buy or your money back. It's simple to install, the hand unit does not need to be opened.

$6.99 PAIR SHIPPING FREE

DEALER INQUIRIES CALL (401) 331-3200

C&T CREATIONS

127 Weybosset St., Providence, RI 02903

(PLEASE PRINT)

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

Send check or money order – Sorry no C.O.D.'s

NOBODY'S FASTER THAN **KID LIGHTNING!**



Your gaming software is shipped within 24 hours. Orders by 2pm are shipped same day. nobody beats *Kid Lightning*, Galactic Gameslinger.

APPLE II/II+		**ATARI 400/800**	
BRODERBUND		**ADVENTURE INT'L**	
Galactic Empire-d	18.71	Galactic Empire-c	14.96
Apple Panic-d	22.46	Adventureland-d	29.96
Arcade Machine-d	44.96	Mission Impossible-d	29.96
Choplifter-d	26.21	Voodoo Castle-c	18.71
Seafox-d	22.46	The Count-c	18.71
Serpentine-d	26.21	Ghost Town-c	18.71
Sky Blazer-d	23.96	Preppie II-c	26.21
DATAMOST		Sea Dragon-c	26.21
Aztec-d	29.96	Stratos-c	26.21
Missing -d	22.46	**BRODERBUND**	
Gin Rummy-d	22.46	Choplifter-cart	33.71
Mars Cars-d	22.46	**MICROCOMPUTER**	
Pandora's Box-d	22.46	Andromeda Conquest-c	13.50
Snack Attack-d	22.46	B-1 Bomber-c	12.00
Spectre-d	22.46	Galaxy-c	15.00
Thief-d	22.46	Space Station Zulu-d	18.75
Tubeway-d	26.21	Flying Ace-c	19.50
MUSE		Knockout-c	15.00
Castle Wolfenstein-d	22.46	Tank Arcade-c	11.25
Caverns of Freitag-d	22.46	**DATASOFT**	
Robot War-d	22.46	Sands of Egypt-d	29.96
ABM-d	18.71	Canyon Climber-d	22.46
Grand Prix-d	22.46	Zaxxon-c	29.96

Write for a complete listing of software
Specify machine and disk or cassette.
Add $2.00 for postage and handling.
Make check or money order payable to:

Lightning Micro Games



Dept.100 P.O. Box 59701
Dallas TX 75229

"Tell 'em KID LIGHTNING sent ya."

line program (which could be part of any number of longer programs) on the 8088 processor, which is in the IBM Personal Computer. This program tells two registers in the CPU to trade their data with each other, then adds the number one to the data in one of these two registers.

XCHG AX,BX; What was in register BX is now in register AX, and vice versa. Notice on the 8088 the registers have different names than on the Z-80.

INC AX; The INC instruction "increments" the register by one.

Obviously, effective assembler programs have to be able to do more than add a few numbers and exchange a couple of registers, and there are many more instructions for a good CPU than ADD, LOAD and INC. Instructions generally fall into a few categories.

Most commands, like the MVI and XCHG shown before, move data around in some way, from the CPU registers to memory, from one memory mailbox to another, from register to register, etc. These instructions are "schlepping" commands. They make the computer schlep data from place to place. Then there are commands that do some kind of arithmetic.

Now you've learned a few of the basics of something besides BASIC. If you think assembler programming might be fun, then you're probably just as hopelessly weird as I am, and the best thing to do is pick up a good book on the subject, written especially about the computer you have access to. You'll soon have Klingon battle cruisers moving out of your CPU and onto your video screen at something like the speed of light.□

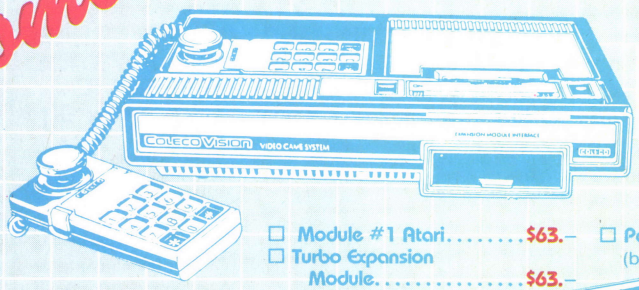
ACHIEVE IMMORTALITY!

We want to put your name in type. Send us your highest score—on a home game, on an arcade game or on a computer game—and we'll print it alongside your name on our Video Superstars page. We need your name, the score, the name of the game and a clear photograph of the score in order for you to qualify for induction into our hall of fame. Send entries to: Electronic Fun, Video Superstars, 350 E. 81st St., New York, NY 10028. Look for your name starting in our November issue.

Take the Action Home!

COLECOVISION

only $149.95



☐ Module #1 Atari.....$63.–
☐ Turbo Expansion Module.....$63.–
☐ Perma Power (battery eliminator).....$12.95

COLECO FOR COLECO
★ Venture
★ Carnival
★ Lady Bug
★ Cosmic Avenger
★ Mouse Trap
★ Smurf Rescue
★ Zaxxon $42.00
only $26.75 ea.

★ Donkey Kong Jr.
★ Gorf
★ Space Fury
★ Space Panic
★ Destructor
★ Black Jack ★ Pepper II ★ Looping
only $31.00 ea.

COLECO FOR INTELLIVISION
★ Venture
★ Mousetrap
$17.75
★ Lady Bug
$29.00 ea.



COLECO FOR ATARI
★ Donkey Kong $24.50 ea.
★ Zaxxon
★ Smurf Rescue $26.75 ea.

SYNAPSE SOFTWARE
For Atari 400/800 Computers
Disc.....31.45
Cassette...31.45
ROM.....39.95
FileManager.....89.95 Available Disc Only
★ Protector II
★ Nautilus
★ Shamus
★ Claim Jumper
★ Fort Apocalypse
★ Survivor
★ Escape
★ Reptilian
★ Slam Ball
★ Pharaoh's Curse
★ Necromancer
★ Shadow World
★ Drelbs
★ Shamus II

TRIGA COMMAND Joy Stick
1 YEAR Warranty
$18.95



Astro Patrol For V.I.C.20 (16K) 19.95

HOW TO ORDER: Call Collect 516-546-5055. For prompt shipment send money order, cashier's check or certified check payable to: LVI. Personal and business checks must clear our bank before shipping. UPS shipping, handling and insurance is 2% of total order, with a $3.50 minimum. CODs cash only. New York State residents add sales taxes. All merchandise is factory fresh and 100% guaranteed by manufacturers. Prices subject to change without notice. Limited quantities on some items. Not responsible for typographical errors. DEALER'S ORDERS INVITED.

Leisure Value
P.O. Box 425
Merrick, New York 11566
516-546-5055

GAME WORKOUT

Continued from page 73

always at least one story above you. He is also possessed by the ability to move between floors without using any of the conventional means. And what's even more annoying, he can go down but you can't. You can only go up.

You must run after him in order to apprehend him and make the world (or, at least this store) safe for shoppers. Although your man gets to do a lot of remarkable long jumping, there is no climbing, really. There are no stairs. You take either the escalator or the elevator and ride it up one floor. And your man is a sight when he rides the escalator. There he is, running along at a good clip and then he steps on the moving stairway, stops dead and rides it up with a bemused and long-suffering expression on his face. You can almost see him tapping his foot as he waits until he reaches the next level.

Using a kangaroo as the main character in a climbing game seems reasonable. What, after all, is as accomplished a jumper as a kangaroo? And, in *Kangaroo* from Atari, not only do you get to jump and harvest fruit like nobody's business, you also get to a take a great deal of your aggression out on the lower primates—punching monkeys is one of the main activities that this marsupial goes in for on her way up the tree to rescue her little joey. It is also a quantum leap for feminism that the aggressive kangaroo is a woman wearing boxing gloves. The era of the retiring female is past.

There are four screens in the 5200 version with the third being the ultimate in monkey abuse. A tower of performing anthropoids, each with another perched on his shoulders, holds your baby aloft and you must punch them out one at a time to lower your child into your arms.

Several climbing games require that you take your life into your hands and feet and scale the sheer sides of high rise buildings. One is Atari's *Crazy Climber* in which you are someone who has no fear of heights and nothing better to do than climb skyscrapers. While the Atari 2600 version is a graphic eyesore, and is lacking those two-fisted controllers found in the arcade version, it nevertheless, follows the same rules—climb only where there are open windows, avoid falling debris thrown by demented peeping toms or dropped by unfriendly birds, and get to the top of the building where, in the VCS version, you are picked up by a helicopter.

Beauty and the Beast also takes place outside a building, but this one is more graphically complete and the object of your quest is more romantic than a mere helicopter ride—the rescue of your hapless girlfriend from the clutches of a close relation of King Kong. You can catch falling hearts to gain extra points and you must avoid little kitty cats that some unfeeling owner who has no fear of the Humane Society has let roam around on ledges hundreds of feet in the air. In between each completed level, is a long shot of a city skyline featuring your skyscraper and indicating how high you've gone and how much higher you must go before you get to the top. A biplane flies overhead trailing a banner that either compliments you ("Good job") or degrades you ("Just lucky").

Unlike other climbing games, where one false move sends you plummeting all the way to the bottom, you can break your fall in *Spiderman*. Equipped with your handy non-government-issue web-shooter, you can simply reattach your dropping self to the building with one judiciously planned shot.

You'll find yourself doing that a lot in *Spiderman*. The goal is to climb to the top of a building, where a time bomb is set to explode in a matter of minutes. Various criminal types appear in the windows as you climb—beware that your swinging web doesn't cross their path, or they'll cut it and drop you. You'll also encounter smaller bombs and a kind of mechanical robot-clock figure in the upper stories, and like the criminals, you can either sweep them up for extra points (not the figure, though) or become their victims.

Spiderman ought to have been a

Assemble your own

GAMEFRAME

Your own private arcade using an old TV, your video game console and the GAMEFRAME!



★ ***Sturdy, Arcade Quality Construction!***
★ ***Complete, Simple-to-Assemble Pre-Finished Kit!***
★ ***Attractive Wood Grain Appearance!***
★ ***No Visible Wires!***
★ ***Ready When You Are!***



Give the TV back to the family. Play your games on the GAMEFRAME!

SPECIFICATIONS: 71" HIGH x 28 3/8" WIDE x 30" DEEP. MAXIMUM TV DIMENSIONS: 27" WIDE x 22" HIGH x ANY DEPTH. CONTROL SHELF: 27" WIDE x 12" DEEP x 6" HIGH. APPROX. SHIPPING WT.: 110#.

Write or Call: **GAMEFRAME**
7200 No. Hwy. 63, Rochester, MN 55901
Telephone (507) 288-3323

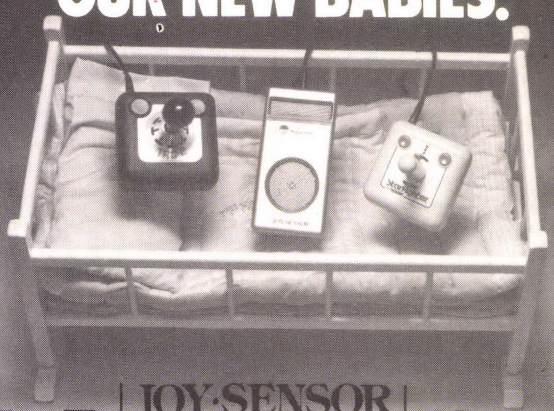
Name _____
Address _____
_____ Zip _____
Phone _____

$198.00 Shipped Freight Collect
☐ Check/Money Order Enclosed
☐ Please send add'l. information
Allow 3 to 5 weeks for delivery

Limited Introductory Offer $149.95
Prices subject to change without notice.

"Minnesota residents add $7.50 sales tax."

OUR NEW BABIES.



TAC-2
Totally·Accurate·Controller™

JOYSTICK CONTROLLER FOR ATARI GAME, SEARS TELEGAME, ATARI 400/800, COMMODORE VIC.*

If your joysticks are like most, you can't feel when you have made a move. You only see it on the screen, when it's too late. Suncom has a solution. TAC-2. Totally Accurate Controller — 2 fire buttons.

With its longer shaft, arcade style ball top, and exclusive Suncom internal construction, TAC-2 gives you that extra control...you can feel absolutely, positively, for sure, exactly when you have made a move. And with its 2 fire buttons, TAC-2 is equally fair to left handers and right handers.

TAC-2 comes with Suncom's famous 2 year warranty. And it comes with something else. Totally Accurate Control.

JOY·SENSOR™

TOUCH SENSITIVE JOYSTICK CONTROLLER FOR ATARI GAME, SEARS TELEGAME, ATARI 400/800, COMMODORE VIC.*

Our engineering staff has spent months creating, designing and refining the Joy-Sensor. The digitally simulated joystick controller with no stick, to bring you just the right combination of control and responsiveness. Now, the slightest touch is all that it takes to effect control movements on your game screen. Rock your finger or thumb back and forth, and it seems like Joy-Sensor has read your mind. Moves are executed much faster because there is no stick to move, no resistance to movement.

Your ships will fly across the screen as easily as light flies through space. Your laser rays will fire exactly when you want them to. You will never go back to your old joystick again.

Suncom incorporated

650E Anthony Trail, Northbrook, IL 60062

StarFighter™ for apple

JOYSTICK CONTROLLER FOR APPLE COMPUTER*

You own an Apple Computer. You probably use it for entertainment and to play games. We think that you deserve a controller that is as up and keeping with new technology as your computer. So we designed one. From scratch. Brand new internally. Starfighter. For Apple.

Starfighter for Apple has many of its Atari-compatible counterpart's exterior physical characteristics. Round-cornered and smooth, it won't fatigue you over those long playing sessions. And internally, its new, advanced design gives you a kind of feel and response during game play that you have never experienced before.

Of course, Starfighter for Apple comes with a 2 year warranty. From your friends at Suncom.

*Products and trademarks of Atari, Sears, Commodore, Apple Computer.
Consumer Hotline: 800-558-0003

ALL ORDERS SHIPPED FROM STOCK WITHIN 48 HOURS

VIDEO HEAVEN INC.

NEW TITLES DAILY



ACTIVISION®
(FOR ATARI 2600)
ENDURO 23.50
PLAQUE ATTACK 23.50
ROBOT TANK 23.50
23.50

TELYSIS (FOR 2600)
COCONUT
$9.95 EACH REG. 21.95

ATARI
(FOR 5200)
KANGAROO 31.95
REAL SPORTS TENNIS 27.95
COUNTER-MEASURE 27.95
SPACE DUNGEON 31.95



PARKER BROTHERS



Q-BERT FOR 2600 29.95
Q-BERT FOR MATTEL 31.95
FROGGER FOR 2600 25.95
FROGGER FOR 5200 28.95
FROGGER FOR MATTEL 27.95

BIG FIVE (FOR 5200)
NEW MINER 2049ER 29.95

IMAGIC
FOR MATTEL
TRUCKIN 25.95
NOVA BLAST 25.95
WHITE WATER 25.95
SAFE CRACKER 25.95

ATARI
(FOR 2600)
DIG DUG 25.95
JUNGLE HUNT 25.95
JOUST 25.95
KANGAROO 25.95
COOKIE MONSTER MUNCH 25.95
ALPHA-BEAM 28.95



IMAGIC
FOR 2600
MOONSWEEPER 22.95
FATHOM 22.95
SOLAR STORM 22.95



COLECO
FOR COLECOVISION
DESTRUCTION DERBY 29.95
MR DO 29.95
BLACK JACK 29.95
OMEGA RACE (B&J) 29.95

micro fun™
FOR COLECOVISION
MINER 2049ER - 39.95

SUPER EXPANSION
MODULE #3 109.95

ORDERS ONLY CALL
1-800-253-0164 9 AM-5PM EST
(IN MICHIGAN 616-392-2877)
FOR INFORMATION OR EVENING ORDERS CALL
616-392-2877

OR SEND MONEY ORDER / CERTIFIED CHECK WITH 2.50 FOR SHIPPING OF TOTAL ORDER
WE ACCEPT VISA, MASTERCARD, AMERICAN EXPRESS
P.O. BOX 144C-V, HOLLAND, MICHIGAN 49423

ENTERTAINMENT AND BUSINESS SOFTWARE FOR ATARI, APPLE, COMMODORE, AND TEXAS INSTRUMENTS
NOW IN STOCK. SEND 25¢ FOR HUGE CATALOG.

great game, but alas, it's kind of boring after the first 30 days or so. The graphics are boring, blocky and repetitive, and the reward for stopping the bomb is a bringdown.

Set inside, rather than outside, a building is Mattel's *BurgerTime* in which you are Peter Pepper, a distraught little chef who is apparently living in the Twilight Zone. In his nightmare, all of his otherwise docile foodstuffs have turned on him and pursue him up and down ladders and across mammoth hamburger parts which drop as soon as he runs over them. As he runs over various ingredients—buns, lettuce (or Astroturf, it's hard to tell) and patties—they fall one level until they all land neatly on a plate at the bottom of the screen. As a defense against the vicious vittles, he has a limited supply of pepper which stuns them but does not make them sneeze. The graphics are lovely, the game is wonderful and credit must go to Mattel for making so fine an adaptation of the arcade hit.

Mines are a popular setting for climbing games and why not? If any of us were trapped at the bottom of a mine, we'd certainly want to climb up. Odyssey's *Pick Axe Pete* is a fine example of an underground climbing game. In it you are Pete, a prospector who has staked his claim in the Misty Mountain Mine which, it seems, unlike the streets of America at the turn of the century, is paved with gold. You've got to climb up and down picking up this treasure while avoiding dangers such as bouncing boulders. You've got a pickaxe which can help you destroy boulders and, along the way keys appear from time to time which, if captured, will open doors that take you even deeper into the mine. Occasionally, addlers disappear. While the graphics are not spectacular, the 10 different playing fields do provide players with a good deal of variety.

By now everybody ought to have met the King of the Ramps, *Donkey Kong*, and been treated to at least one installment of his eternal battle with Mario the Carpenter and his demure girlfriend, Betsy. Even if you've never seen the coin-op, you'd still find it almost impossible to escape *Donkey Kong* in one of its

four different home versions—more than any other home game, and more than that other omnipresent coin-op great, *Pac-Man.*

Versions exist for the Atari VCS, Intellivision and ColecoVision—but if you're looking for the best, the top of the ramp is *Super Donkey Kong.* It's actually not a cartridge but a tape "wafer", designed for use with Coleco's Super Game expansion module #3, which adds one million bits of memory to the ColecoVision console. While *Super Donkey Kong*'s animation just isn't the equal of the coin-op, the overall look of the game—color, detail, animation of parts of the figures—is so smooth, sharp and high-res as to put all three of the other carts to shame. At least one of the coin-op screens available in no other home version is restored in *Super Donkey Kong,* and all of the other versions' play-action quirks are non-existent here (we haven't found any new ones—yet).

Like father like son, they say, and so it is with the two games starring DK's valiant offspring, *Donkey Kong Jr.* Here the theme is filial love in the jungle rather than romance on a construction site: In a brilliant reversal, Junior tries to save his pop from Mario's clutches.

The winner cart here is, again, the Super Game version, *Super Donkey Kong Jr.*—and for the same reasons, right down to having the same number of screens as the arcade version.

Dig We Must

Space Panic from Coleco is one of those games that's actually better as a home game than as a coin-op. Your panic is that you're a spaceman locked inside an almost empty space station, with a limited supply of oxygen and an alien invasion to fight. The aliens come in several different flavors (all creepy), and the only way they can be killed is to slowly dig holes right in front of them, wait for them to fall in, and then close up the hole. This makes them fall a level (some have to fall several levels) and die. One of the first climbing games, it didn't catch on in the arcades because it was so darn hard. At home, where you don't have to keep dropping quarters all the time you can enjoy what seems to be a very simple—but actually very challenging—game at your leisure.

Another very challenging game that doesn't come off nearly as well is Mattel's *Adventures of Tron.* Loosely (*very* loosely) based on the characters of the film, the game features wave after wave of attacking grid bugs, Recognizers and MCP attackers who slide down from floor to floor of a four-level grid. Your job is to keep your man alive by jumping down a floor, sliding up the center Input/Output beam, or taking elevators from floor to floor. The graphics are lackluster, even for a VCS game, and the rationale just isn't worked out very well. What are *elevators* doing inside a computer?

A good ear for music and a very good joystick hand are what you need in *Mountain King,* a game for the Atari 400/800/1200 computers. Locked deep inside a mountain diamond mine, you search for a lost temple concealing a priceless golden crown of mystical power. Several nasty locals lurk in the depths, protecting the crown: a giant spider who wraps you up in a web before dining on you, a Skull Spirit who must be appeased before you can enter the temple and bats who'll try to steal the crown back from you. Equipped only with a flashlight, you must first find enough diamonds to attract a capricious Flame Spirit who'll help you gain entrance to the temple. Once you've got the crown, it's a race back to the top of the mountain.

Mountain King makes intriguing use of music—Grieg's "Hall of the Mountain King" theme from *Peer Gynt Suite*—to give important clues, mixing it in with more usual game sounds and varying the volume and speed of the music to tell you, for instance, both how near you are to the Flame Spirit and how much time you have to find it (this spirit is only fully visible when you use the flashlight). And apart from the eight-position joystick movements which really give you eight positions (kneeling, standing, jumping and running), a quick back-and-forth movement of the joystick also helps you escape from the spider's web.□

SCREENPLAYS

Continued from page 18

that appear on the wall. Tailor your leaps to suit the situation. To capture a prize, for example, you may have to jump over any number of animals to reach it. If the bonus object is closer than the end point of your jump, quickly move the joystick back and forth until Zeke falls back to the wall. By doing so, he'll hover directly over his target. Once you've memorized the actual distance of a running jump, use the back-and-forth method to select a clear landing spot. When doing so, also take into account the approaching animals and correct your position accordingly.

Prisoner Of Zelda

The third round is the "Save Zelda" screen. The object is to reach the uppermost platform. Two things are to be avoided here—the falling coconuts and the hole left on the bottom of the screen when the lowest platform disappears. Unlike the elevator screen in *Donkey Kong,* where running jumps are necessary to move at angles, *Zoo Keeper* allows you to jump in an "L" shaped pattern. To move to a higher platform, press jump and move the joystick either left or right depending on the location of the platform you wish to land on. You'll notice that many of the platforms have bonus objects resting on them, some of which—e.g. the trophies—are worth 10,000 points. Try to spend as much time as possible moving from platform to platform in search of bonus points. Of course this gets risky after a while because the longer you dally, the more coconuts you'll have to avoid. I've noticed that they tend to fall in groups—one group will shower the left side of the screen, another will fall to the right. Nothing says you can't jump down a level or two to avoid the storm. Re-position yourself as necessary to avoid the coconuts.□

BUYER'S GUIDE

Continued from page 85

Company's Pick: *Miner 2049er.* Futuristic fortune hunter Bounty Bob must survive all 10 levels in a mine in order to claim his fortune. Bob must endure mutants, moving platforms, Stompers and radioactive pools, among other pitfalls. **$39.95.** *Address: 2310 Skokie Valley Rd., Highland Park, IL 60035.*

MICROCOMPUTER GAMES has 28 games in the Arcade, Strategy and Adventure games. In the Adventure category there's *Empire of the Overmind, Lords of Karma* and *Telengard.* Arcade titles include *Voyager, Galaxy* and *Shootout.* In the Strategy area there's *Knockout, Acquire* and *Nukewar.* Company's Pick: *Space Station Zulu.* Alien bugs threaten to engulf your space ship in this arcade action game that challenges your ability to make quick decisions by pitting you against alien life forms. **$25.** *Address: 4517 Harford Road, Baltimore, MD 21214.*

MICROSOFT CORP. has one game for the system in the Sports category. Company's Pick: *Olympic Decathlon.* Up to 20 players can participate and go for the gold. Fast reflexes and good coordination running dashes, jumping hurdles and throwing disci could add up to a perfect 10,000 points. **$29.95.** *Address: 10700 Northup Way, Bellvue, WA 98004.*

MILLIKEN PUBLISHING CO. has six games for the system in the Educational category. Two of them are *Aliencounter/Face Flash* and *Jar Game/Chaos.* Company's Pick: *Golf Classic/Compubar.* In *Golf Classic,* you face an 18-hole golf course complete with sandtraps and water hazards. Through teeing up, you learn about angles and length. **$32.95.** *Address: 1100 Research Blvd., St. Louis, MO 63132.*

MIRROR IMAGES SOFTWARE has two games for the system in the Strategy category. One of the games is *Hextay,* the other is the Company's Pick: *Hide and Sink.* Your fleet, consisting of various naval vessels hidden on a 10-by-10 sea grid, is pitted against the computer's fleet. Displays note which ships are hit and prompt you to make moves. **$34.95.** *Address: 1223 Peoples Ave., Troy, NY 12180.*

MUSE SOFTWARE has 10 games in the Arcade, Strategy and Adventure categories for the system. In the Arcade line there's *ABM* and *Frazzle.* Strategy is represented by *Three Mile Island.* Adventure titles include *Caverns of Freitag* and *Robot War.* Company's Pick: *Castle Wolfenstein.* War game has you (an American soldier) trying to escape a Nazi prison camp with vital war plans. Field commissions are granted as points accumulate. **$29.95.** *Address: 347 N. Charles St., Baltimore, MD 21201.*

PDI has 10 games in the Strategy and Educational categories for the system. Educational titles include *Sammy the Sea Serpent* and *The Adventures of Oswald.* In the Strategy area there's *Minicrossword, Astro Quotes* and *Astro Word Search.* Company's Pick: *Code Breaker.* A trio of scrambled messages of increasing difficulty designed to build writing skills. **$23.95.** *Address: 11 Idar Court, Greenwich, CT 06830.*

PENGUIN has four games for the system in the Arcade and Adventure categories. Arcade games include *Spy's Demise* and *Thunderbombs.* The Adventure title is *Transylvania.* Company's Pick: *Pie Man.* You have to bake a peck of pies by using your joystick to manipulate cherries and whipped cream. But as you bake more pies, you encounter loose flour sacks, grease spots and clumsy fellow bakers. **$19.95.** *Address: 830 4th Ave., Geneva, IL 60134.*

PHOENIX SOFTWARE has four games for the system in the Adventure category. The Adventure titles include *Adventure in Time, Birth of the Phoenix* and *Queen of Phobof.* Company's Pick: *Sherwood Forest.* You're Robin Hood determined to wed Maid Marion even if you have to fight every rogue and villain in Sherwood... which you do. **$34.95.** *Address: 64 Lake Zurich Dr., Lake Zurich, IL 60047.*

PICCADILLY SOFTWARE has seven games for the system in the Arcade category. Among them: *Falcons, Suicide* and *Warp Destroyer.* Company's Pick: *Starblaster.* You take on meteorites, space ships and a moving force field to get to the final level of difficulty and the mother ship. **$29.95.** *Address: 89 Summit Ave., Summit, NJ 07901.*

QUALITY SOFTWARE has 15 games for the system in the Arcade, Adventure and Strategy categories. Arcade titles include *Meteoroids in Space* and *Fracas.* In the Strategy area there's *QS Reversi, Pro Poker* and *Battleship Commander.* Adventure titles include *Ali Baba and the 40 Thieves.* Company's Pick: *Beneath Apple Manor. Dungeons & Dragons*-style adventure sends the player on a search for hidden treasure in the caverns beneath Apple Manor, filled, as the company spokesman put it, "with monsters and stuff." **$29.95.** *Address: 6660 Reseda Blvd., 105, Reseda, CA 91335.*

RANDOM HOUSE has two games for the system in the Educational category. One game is *Grand Prix.* Company's Pick: *Galaxy Math Facts.* Traveling through space, you encounter dangerous enemies. To fire torpedoes back at your foes, you must solve math problems. **$35.** *Address: 2970 Brandywine Rd., 201, Atlanta, GA 30341.*

RESTON PUBLISHING COMPANY has one game for the system in the Educational category. *Multiplay* drills the player in rudimentary mathematics. Equations come down in little space ships which must be shot down by keying in the correct answer. **$24.95.** *Address: 11480 Sunset Hills, Reston, VA 22090.*

RIVERBANK SOFTWARE has two games for the system in the Sports and Educational categories. The Sports game is *International Grand Prix.* Company's Pick: *Three Mile Island.* In a nuclear power plant you must keep the reactor running, prevent equipment from breaking down and maintain safe, clean nuclear energy generation. **$39.95.** *Address: Smith's Landing Rd., Denton, MD 21629.*

ROCKROY has two games for the system in the Arcade and Strategy categories. The Arcade game is *Max Command.* Company's Pick: *Conglomerates Collide.* In this business simulation, you buy and sell stock in an effort to increase personal equity. You must consider a number of variables: interest rates, loans, P/E ratios and different world economic reports. **$39.95.** *Address: 7741 E. Gray Rd., Suite 6, Scottsdale, AZ 85260.*

ROKLAN has four games in the Arcade and Educational categories for the system. Learning titles include *Space Journey* and *Picture Parts. Wizard of Wor* is one of the Arcade selections. Company's Pick: *Gorf.* Apple adaptation of the hit outer space arcade game pits you against the fierce Gorfian empire. The multiple-screen game is designed to blast space cadets out of the stratosphere with hordes of Gorfian monsters, laser-spewing ships and the deadly mothership. **$39.95.** *Address: 3335 N. Arlington Heights Rd., Arlington Heights, IL 60004.*

SENTIENT SOFTWARE has four games for the system in the Adventure and Arcade categories. Among the Adventure titles are *Cyborg* and *De-Topos.* The Arcade category is represented by *Gold Rush.* Company's Pick:

Congo. River rescue game has you floating down a fast moving river, saving people on shore and on nearby islands. **$34.95.** *Address: PO Box 4929, Aspen CO 81612.*

SIERRA ON-LINE has 27 games for the system in the Arcade, Adventure and Educational categories. In the Educational line there's *Learning with Leeper* and *Dragonsleep.* Adventure titles are *Time Zone* and *The Wizard and the Princess.* Arcade games include *Frogger, Crossfire, Threshold, Sammy Lightfoot* and *Apple Cider Spider.* Company's Pick: *Dark Crystal.* Based on the fantasy/adventure by Muppet's creator Jim Henson, the game casts you as the movie's hero, determined to end the reign of an evil empire by uncovering the all powerful Dark Crystal. **$39.95.** *Address: Sierra On-Line Building, Coarsegold, CA 93614.*

SIRIUS has 30 games for the system in the Arcade category. Arcade titles include *Critical Mass, Plasmania, Fowl Play, Repton* and *Twerps.* Company's Pick: *Gruds in Space.* As a space-age soldier of fortune your mission is to recover valuable fuel. You land on various planets and teleport into heavily defended areas. **$39.95.** *Address: 10364 Rockingham Dr., Sacramento, CA 95827.*

SIR-TECH SOFTWARE has six games for the system in the Adventure, Arcade and Strategy categories. Among the Arcade titles are *Galactic Attack* and *Star Maze.* The one Strategy game is *Police Artist.* In the Adventure line there's *Legacy* and *Knight of Diamonds.* Company's Pick: *Wizardry.* Subtitled "Proving Grounds of the Mad Overlord," the 3-D maze adventure allows you to command up to six adventurers to explore a deep and mysterious maze in search of loot and glory. **$49.95.** *Address: 6 Main St., Ogdensburg, NY 13669.*

SOFTWARE ENGINEERING CORP. has one game for the system in the Arcade category. Company's Pick: *Stellar 7.* You are in the driver's seat in this 3-D action game, in which you face 30 different enemies. The most treacherous is Gir Draxon. **$34.95.** *Address: PO Box 10854, Eugene, OR 97440.*

SPINNAKER SOFTWARE has four games for the system in the Educational category. The learning games include *In Search of the Most Amazing Thing* and *Facemaker.* Company's Pick: *Snooper Troops I.* You are a private detective trying to determine who committed the crime by questioning suspects, searching houses and using the Snoopnet computer to obtain information. **$44.95.** *Address: 215 First St., Cambridge, MA 02142.*

STRATEGIC SIMULATIONS offers 32 games in the Strategy and Arcade categories for the system. Among the Strategy titles are *Bomb Alley, Knights of the Desert* and *Cartels & Cutthroats.* Arcade games include *Epidemic, Galactic Gladiators* and *S.E.U.I.S.* Company's Pick: *Flight Command.* You're the bad guy, a German commander attempting to lure up R.A.F. fighters. **$59.95.** *Address: 883 Stierline Rd., Building A-200, Mountain View, CA 94043.*

SUBLOGIC CORP. has six games for the system in the Strategy and Arcade categories. Among the Strategy titles are *Flight Simulator, Frontline* and *Saturn Navigator.* Arcade games include *Space Vikings* and *Night Mission Pinball.* Company's Pick: *Zendar.* An economic/defense game in which the player must save a failing empire. **$29.95.** *Address: 713 Edgebrook Dr., Champaign, IL 61820.*

SYNAPSE has five games for the system in the Arcade category. One of the current Arcade titles is *Shamus.* Company's Pick: *Picnic Paranoia.* George is having a picnic, but it's no picnic. Ants, spiders and wasps all want to share in the goodies, so George must swat them away or be left stung. **$34.95.** *Address: 5221 Central Ave., Richmond, CA 94804.*

SYNERGISTIC SOFTWARE has 10 games for the system in the Arcade, Adventure and Educational categories. Arcade games include *Escape From Arcturus* and *Bolo.* Company's Pick: *Crisis Mountain.* Being inside a volcano isn't bad enough; a terrorist group has also dropped a thermonuclear device. **$35.** *Address: 830 N. Riverside Dr., 201, Renton, WA 98055.*

THESIS has six games for the system in the Educational category. Company's Pick: *Big Math Attack.* At two different levels of play, equations are launched from a rocket and are dropped on the city. You must answer problems before equations land. **$25.** *Address: PO Box 147, Garden City, MI 48135.*

TURNKEY SOFTWARE has two games for the system in the Arcade category. One Arcade game is *Ceiling Zero.* Company's Pick: *Amoeba Man.* The little laboratory creatures slither back and forth and you must shoot them. The more you shoot, the more they multiply. **$29.95.** *Address: 13078 Mindanao Way, Suite 314, Marina Del Ray, CA 90291.*

ULTRASOFT has two games for the system in the Adventure category. One of the Adventure games is *Serpent's Fire* and the other is the Company's Pick: *The Mask of the Sun.* As adventurer/archaeologist Mac Steele you must seek out an ancient relic in order to rid yourself of a deadly poison. **$39.95.** *Address: 12503 Bell-Red Road, Suite 200, Bellvue, WA 98005.*

UNITED SOFTWARE OF AMERICA has five games for the system in the Arcade and Adventure categories. Arcade games include *Star Dance* and *Robot Battle.* Company's Pick: *Bug Battle.* Armed only with spray, you must keep spiders, caterpillars and a weed planting neighbor out of your backyard garden. 1-4 players. **$22.50.** *Address: 750 Third Ave., New York, NY 10017.*

VERSA COMPUTING INC. has seven games for the system in the Educational category. Included are *Globe Master II* and *Here's Hollywood.* Company's Pick: *Meet the Presidents.* You test your historical knowledge by trying to identify chief executives from Washington. **$39.95.** *Address: 3541 Old Conejo Rd., 104, Newbury Park, CA 91320.*

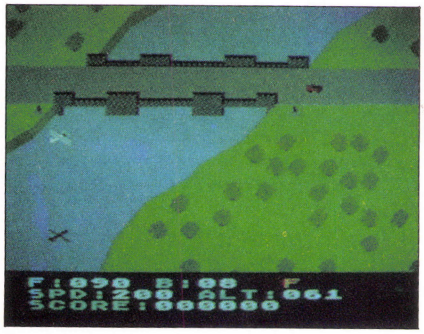
VOYAGER SOFTWARE has one game for the system in the Strategy category. Company's Pick: *Starship Commander.* Played with a paddle, you command the USS Ranger against 1-3 enemy ships in a space battle royale. **$29.95.** *Address: PO Box 1126, Burlingame, CA 94010.*

WIMS COMPUTER CONSULTING has one game for the system in the Strategy category. Company's Pick: *Appleopoly.* The board game classic is transferred to screen, complete with hi-resolution color graphics. An internal speaker blurts blooper and victory tunes. **$19.95.** *Address; 6723 E. 66th Pl., Tulsa, OK 74133.*

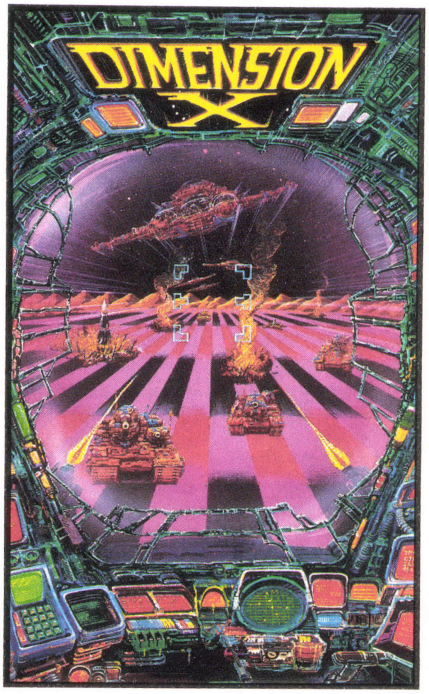
WIZWARE (Scholastic) has three Educational games and a magazine for the Apple. Among the Educational games are *Square Pairs* and *Turtle Tracks.* Company's Pick: *Microzine,* a disc-based magazine which has features such as interactive short stories and lessons in simple graphics. **$40.00.** *Address: 730 Broadway, New York, NY 10003.*

XEROX has four games in the Educational and Strategy categories for the system. The single Strategy title is *Old Ironsides.* Educational titles are *Stickybear Bop* and *Stickybear ABC.* Company's Pick: *Stickybear Numbers.* Colorful groups of big moving objects teach numbers, counting and simple arithmetic. **$39.95.** *Address: 245 Long Hill Road, Middletown, CT 06457.*

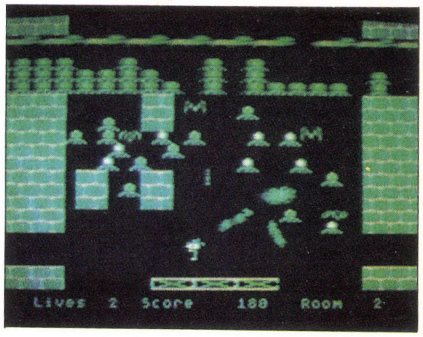
top secret



Synapse's new BLUE MAX . . .



. . . the 3-D DIMENSION X . . .



. . . and hitbound sequel, SHAMUS II.

The dam's finally busted, gang—now it seems like everybody's making games for everybody else's system. The latest: **Odyssey's** making games for **ColecoVision** and **Atari** systems, and Atari itself will be making game software for the Apple, Commodore, Radio Shack, Texas Instruments and IBM home computers. But it's still **no dice on the computer keyboard and VCS-game adapter for the 5200** until at least early next year . . . Get it over here—until now. **The Games Network**, that new cable game service, has opened an office in Tokyo and is already talking to **Japanese game makers**... And what's all this I hear about a home game based on the **Three Stooges**?... Bye, bye, **U.S. Games**, it was nice playing you... Atari's latest quarter-gulper is **Star Wars**, which puts you in the Deathstar trench-flying sequence from the first movie.Other new Atari



Saker One's plexiglass cockpit . . .



. . . takes you inside Star Wars.

ready for **Saker One**, first of the environmental video games. Locked inside the plexiglass cockpit, you roll, tilt and float on a 1,400-mile-an-hour air column while blasting **Star Wars** aliens on the craft's vid screen. Inventor John Sassak plans to have up to 100 of them in the arcades by next fall (the NASA arcade already has one), and The Fly hereby guarantees that you will **never, ever** play it at home (unless you can cough up $30,000 to buy one)... **Sega**'s planning to put out **Tac Scan** for the VIC-20, Atari 400/800/1200, and maybe the TI 99/4A. They ought to rework **Sub Scan**, though... Is **Atari** planning to bring out games for **Intellivision**? **Mattel** seems to think so—they're suing Atari for $40 million, claiming the Big A lured away three top designers in order to steal Mattel trade secrets... Add two more to the growing roster of third-party ColecoVision cart makers: **Sirius Software** (**Turmoil, Squish 'em** and "probably a lot more") and Canada's own **Sydney Development Corp.** (with **Quest for Tires**. Really. That's the name. Let me guess the plot: 3-D Neanderthals drink beer and hunt down Firestones—extra points for bringing down radials, right?)... The Japanese make some of the best vid-games in the world, and most of them have never made coin-ops: **Arabian** and (oh, noooooooo!) an **E.T.** machine (they promise it'll be nothing like the home game)... **Synapse** just keeps chargin' along: Their latest, **Dimension X**, is a **Phaser Patrol**-style spacehunt with the **most realistic 3-D graphics** The Fly has seen yet.

"The Fly"

1-800-VIDKIDS

The world's hottest hotline, for Vidkids only.



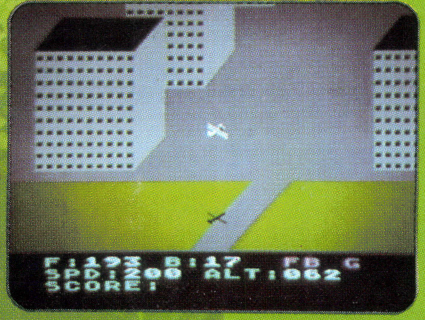
DIAGONAL SCROLLING...GROUND-TO-AIR FIRING...3-D STRAFING RUNS

SOMEBODY FINALLY DID IT RIGHT!

BLUE MAX™ by Bob Polin takes you back to World War I, with 3-D scrolling the other games only wish they had.



For the Atari® 400/800/1200





BLUE MAX,™ at software dealers everywhere, or AVAILABLE DIRECT FROM SYNAPSE ELITE, ONLY $34.95 plus $2 shipping & handling. Send check, money order or your VISA/MASTERCARD number to SYNAPSE ELITE, or order by phone (415) 527-7712.

synapse

5221 Central Avenue, Richmond, CA 94804 · (415) 527-7712