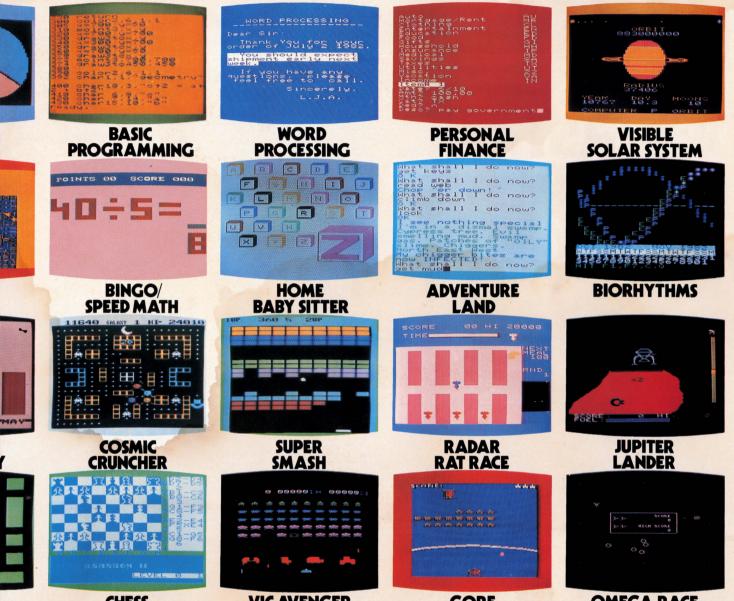
ELECTRONIC FU COMPUTERS 5 GAN \$2.50

BEFIRSTON JOUR PLANET Get ready for laserdisc games! ODYSSEY 3 PREVIEW

We Rate 9 Joysticks



IF YOU OWN A COMMODORE VIC YOU KNOW IT CAN DO ALL THIS.



CHESS

What those extra few dollars get you is a simple little device called a Commodore VICMODEM.

It connects your telephone to your VIC 20[™] or Commodore 64[™] computer (resulting in something aptly called telecomputing), giving you access to information such as you see on the screens to your right.

Normally, you'd have to type a short program into your computer to help it make

VIC AVENGER

the final transition into a telecomputer.

However, when you buy a VICMODEM, you'll find we've included a free software program. You just load it into your Commodore Datassette Recorder, and presto (give or take a moment or two), you have access to a vast library of information and games.

Speaking of free, Commodore also includes a free subscription and a free hour's time on CompuServe™

GORF

OMEGA RACE

and Dow Jones News/ Retrieval Service,[®] a free trial offer on The Source,[™] and a discount program offer with Comp-U-Store and General Videotex Corp.

Let's see. Did we leave anything out? Oh, yes. Along with CompuServe comes a free membership in the Commodore Information Network. This is your HOTLINE to Commodore. (How often do you get to speak directly to a manufacturer?) Through it we

Certain offers subject to change. CompuServe is a trademark of CompuServe, Inc. and H.&.R. Block Co. Dow Jones News/Retrieval Service is a registered trademark of Dow Jones & Co., Inc. The Source is a service mark of Source Telecomputing Corporation, a subsidiary of Reader's Digest Corporation, Inc.

BUT DID YOU KNOW FOR ABOUT \$100 YOU CAN ALSO GET IT TO DO ALL THIS?



However, with the Commodore VICMODEM selling for around \$100, we feel we're being a whole lot more reasonable. Don't you agree?



Commodorerelated, via electronic mail.

The Commodore Information Network is also your direct line to the Commodore Bulletin Board, which Commodore owners use to keep in touch with each other,



THE COMMODORE VIC 20. A REAL COMPUTER FOR THE PRICE OF A TOY. Altogether, these little extras we've included with our VICMODEM add up to a value of \$197.50. A nice return on an

These are just a few examples from our existing library of software available for the VIC 20. U.S.A.-P.O. Box 500, Conshohocken, PA 19428; Canada-3370 Pharmacy Avenue, Ontario, Canada M1W 2K4

• CONTENTS •

MARCH, 1983



ELECTRONIC FUN ICOMPUTERS GAMES

Special Reports

Feature Articles

10100

Continuing Series

Equipment Reviews

Game Reviews

Departments

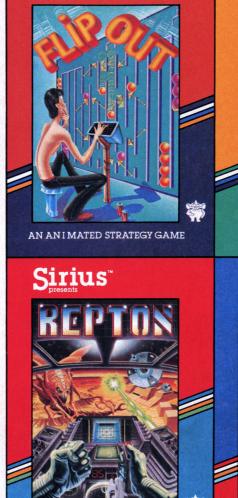
Editorial A word from the editors	7
Letters We welcome your feedback	
New Products The latest in equipment	.10
The EAT Report Jens von der Heide on games	
A Show of Handhelds The latest in games-to-go	.14
The EFG Times You read it here first	.17
Output/Input Got a question? We've got the answer.	
Reader's Tips Your hints for higher scores	
Glitches An irreverent gazette of gaming news	
ScreenPloy Michael Blanchet's arcade strategy tips	
Top Ten The most popular in arcade and home	
Top Secret The latest in gaming gossip	.98

Have A Great Playday!

Sirius

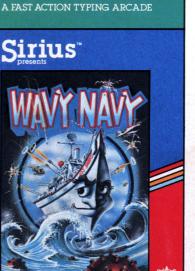
Take your marble to the top. Pick your spot and let it drop. Hope for a flip instead of a flop. Once you get it, the fun never stops! It's FLIP OUT - a crazy new strategy game for one or two players. Each marble you drop causes a chain reaction, so take your time and plan carefully. Plan right and you'll flip, if you didn't you Flip Out!

It is up to you to stop the invasion of the evil Quarriors and save Repton. You are armed with devastating Nuke Bombs, a Radar Screen, a Laser Gun and an Energy Shield. You'll need them all! You'll be attacked by Nova Cruisers and Single Saucers. You must avoid Spye Satellites and deadly **Dyne-Beam Shooters** and you must stop the Draynes from depleting the Reptonian power supply. Repton is a battle so thrilling you'll be relieved to find out you're still on earth when it's over!



KILLER GAME.

Sirius"



FAST ACTION!

Turn your keyboard into a typing arcade! You can blast attacking letters and words right out of the sky. Type Attack was designed by a professional educator and the fast action game experts at Sirius. It features 39 preprogrammed lessons and 60 user defined lessons. Great sound. graphics and a realtime words per minute bar make improving your typing skills fun!

Talk about adventure on the high seas! You're blasting away at a squadron of enemy bombers and Kamikaze fighters from the deck of your P.T. boat. Suddenly you notice the sea is loaded with mines and an Exocet missile is screaming toward you on the horizon. Instinctively you jerk the joystick to the starboard, keeping your thumb on the fire button. Phew! That was close! Sometimes it's hard to believe Wavy Navy's just a video game.

New Games For Your Apple II From Sirius™

Type Attack, Wavy Navy, Flip Out and Repton packages, programs, and audio visuals © 1982 Sirius. Type Attack, Wavy Navy, Flip Out, Repton and Sirius are trademarks of Sirius Software, Inc. Apple is a trademark of Apple Computer, Inc.

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

Doing dirty work

Arcaders have it easy. You drop a quarter into a machine and watch it strut its stuff. You don't even need a quarter—just watch the game on somebody else's coin. On the other hand, fans of home video games and computers have to drop a lot of quarters before they get to watch anything.

"Should I buy Demon Attack by Imagic? Or is Atari's Phoenix the same game? Is Coleco's Donkey Kong really as good as the arcade game? Does George Plimpton really like Intellivision or is he just getting paid a fortune to say it? Should I sell my VCS and buy a ColecoVision with an expansion module? How much money can I get for my VCS? Maybe I ought to upgrade to the Atari 5200? Or would it be smarter to get a computer for a few more dollars? Which one?"

Very few stores that sell video games have the facilities to show you the games before you buy them. You can hear a record on the radio before you buy it. Listening to a video game on the radio, on the other hand, is tough. So in most cases, buying a video game is buying blind—you hand somebody 30 bucks and he gives you a cardboard box.

To a \$66-million-a-year video game company, 30 bucks isn't much. But we think it's a lot of money. And if you bring that game home and get tired of it in a few days, it's a waste of money.

That's where we come in. Right now, Electronic Fun is the only place to go to get honest, intelligent, informed evaluations of the latest games. We get the information before anybody else and we give it right to you. We test the products and let you know which ones are terrific and which ones are turkeys.

So don't waste your money on games and products you won't be happy with. Buy Electronic Fun regularly . . . and let us do the dirty work.



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YOUR FIRST MISTAKE IS YOUR LAST MISTAKE.

Don't dive your mini-sub into the dangerous waters of the "**BERMUDA TRIANGLE**." This mysterious ocean graveyard offers a sea battle like no other you will ever wage. Giant squid, aquatic drones, man-eating sharks, enemy ships, vaporizing laser beams, exploding mines and Bermuda bombs are there to destroy you if you try to get away with the sunken city's buried treasure and priceless artifacts.

"BERMUDA TRIANGLE," a deadly new game from

DATA AGE, is designed for the ATARI® Video Game System and Sear's Tele-Games® Video Arcade[™]—and to get you into deep trouble.

Get 100,000 points and we'll send you a free secret manuscript about the **"BERMUDA TRIANGLE;"** get 500,000 points and receive a free replica artifact from the underwater city.

One last thing. Good luck. You're going to need it.

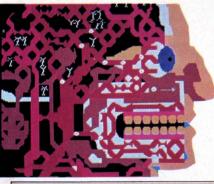






I just bought some Imagic games for Intellivision and they're great! They know more about Intellivision than Mattel does. Did you know that in *Micro Surgeon*, between the chin and the shoulder, are the letters R.I.C.K.? What does that mean? Billy Bronsteen

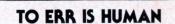
We assume that means Rick as in Rick Levine, the designer of Micro Surgeon.



WHY GAMES?

I read in your Letters to the Editor column—November 1982—a letter called "Why Computers?" What I say is "Why Games?" Why should I buy a game? I have two neighbors that have computers, and I also know a lot of people who have computers. I have the Sinclair ZX81. It is as much fun as a game and is far more educational.

Jeff Clark



Okay, look . . . I'll be the first to admit I blew it. I identified #3 on your contest as Alien Invaders by Emerson instead of Alien Invasion by Fairchild. Gimme a break, please? I've been out of work for six months, and it's going to be a zero expectation Christmas unless you forgive me (I MADE A MISTAKE! I'M ONLY HUMAN, YA KNOW!) and send me a ColecoVision. (Hey, my wife won't even consider buying one unless she can have a baby first . . . talk about cruel and unusual punishment!) Look . . . I know you're running a business here and there ain't no room for sentimentality, but puh-leeze cut me some slack!

Sorry. Best of luck to your wife and the little one and thanks for writing.

CAN'T FIND GAME

In December, you mentioned a game called *River Patrol* by Tigervision. I'd like to get this game. I've looked all over the New York area for it but nobody seems to carry it. What should I do?

Phillis Schaeffer According to Tigervision, you can get River Patrol "as soon as we're done with it." The game will be a multiple screen game and will list for \$31.95. If you can't find it in the stores, write to Tigervision at 909 Orchard, Mundelein, Illinois 60060.

NEW TALENT

-

-

Your article on how to be a game designer was very good and consistent with the rest of your magazine. I have been in the Executive Search business for 10 years. I don't remember ever seeing any industry grow so rapidly as the electronic games field. The exciting thing about this field is that the people in it seem to be really enjoying what they are doing. The turnover rate is low and the compensation is very good. It's the only industry in which the people work overtime and enjoy themselves.

Robin Perlin Search West Inc.



Parker Brothers' *The Empire* Strikes Back is simply boring! I was over at a friend's house and I asked if I could play a different game. He pulled out *Raiders of the Lost Ark*. In my opinion this game is much more exciting than *Empire*. You said the graphics in *Raiders* are pretty bad. Well, *Empire* is no prizewinner either. Why did you say that *Empire* is so good and *Raiders* so bad? Jerry Fleming

Like any kind of review, a video game review is merely the personal opinion of the reviewer. We don't expect you to agree with every reviewer. Before you buy a game, consider these things—the type of game it is, the manufacturer's track record, what your friends have to say . . . and our review of the game.

IRATE AT RATINGS

-

Pitfall' better than Raiders of the Lost Ark!?! GARBAGE!!!! Mr. Blanchet obviously likes action games, not adventure/thinking games. So why did he review Raiders? I mastered Pitfall' after just a few games. I've just begun to learn Raiders. Try blowing a hole in the wall with a grenade, or killing a snake with your whip, or shooting the thief with your gun. Atari did Raiders plenty of justice. Please let adventure people review adventure games and action people review action games, okay?

John Richardson

OOPS! In December's *Input/Output*, you left Imagic out of your list for Atari

compatible game companies. it's Continued on page 31

OVER 250 DIFFERENT CHALLENGE LEVELS.

What does Spyrus the Deathless, Timelord of Chaos, have against you? An armada of deadly Time Ships laden with nucleonic killers...lethal annihilators...anti-matter mines...and the clock.

Your only defense is the laser cannon mounted on your own Time Machine. And, of course, your own cunning and speed. Destroy one flight of the Timelord's Ships and another follows. This time with faster, smarter and deadlier devices to trap you. Wave after wave, with up to 256 levels of increasing challenge. You may get past 10, 20 or even 50 levels-but 256?

For two or more players, Attack of the Timelord features high digital scoring with memory *plus* exciting sound effects when played through

THE TIMELORD.

the Voice of Odyssey®!

YOU CAN'T TURN BACK

Attack of the Timelord. A challenge you can't turn back.





Alien voices and an itchy Triggerstik



CARGENE CORPORATION Arcade Tray \$30.00

The world already knows the pleasure of the folding TV dinner tray table so why not discover the pleasure of the folding TV game table? The Arcade Tray organizes all video game playing components in specially molded compartments which accommodate a video game console, two joysticks and up to 14 cartridges. It also enables the player to play longer without having to hold the joystick in his or her hand. The joystick can simply be placed in the depression made for it on the tray table. It fits most popular home video game consoles.

Cargene Corporation, 50 Bradford Lane, Oak Brook, IL 60521. (312) 654-8772.

Atari 1200XL Home Computer under \$1,000

What do you get if you add the Atari 400 and the Atari 800 together? The Atari 1200, of course. The 1200 is Atari's new entry in the home computer market. It features 64K of built-in RAM and 12 user programmable function keys (including an international character set). The 1200 also has a "Help" key which provides the user with helpful instructions on selected programs and also performs selfdiagnosis (this should cut down on therapy bills) by letting the user know that all components are in working order. It offers 256 colors as well as four voices covering three and a half octaves. The 1200 is compatible with all 400 and 800 software and all joysticks and paddle controls and hooks up easily to any television set. Atari Inc., 1265 Borregas Ave., PO

Box 427, Sunnyvale, CA 94086.

VIDEO TECHNOLOGY CreatiVision \$149.95

There's Activision, Intellivision, Tigervision, ColecoVision and Ultravision. Well, you can add another -vision to the long list of -visions that currently interact with your television. CreatiVision. CreatiVision is a fully functional computer. In addition to being able to play games, you can make use of CreatiVision BASIC as well as many other programs including home finance, educational and business applications. CreatiVision comes with 16K of RAM with an additional 16K available with the purchase of a memory expansion module. There are also several peripherals among



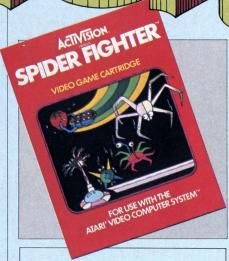
them a cassette recorder, disk drive, keyboard attachment, printer and modem.

Video Technology, 2633 Greenleaf, Elk Grove Village, IL 60007. (312) 640-1776.



- COMPUTERS & GAMES

you do is pry the



ACTIVISION Game cartridge \$31.95

For all of you whose favorite pastime is pulling the wings off flies or crushing bugs under your feet, there's *Spider Fighter*. Designed by Larry Miller, the game revolves around monstrous spiders that are determined to use your sleepy orchard as a battle zone. They lay eggs which turn into bloodthirsty fighters and you have to destroy them—provided they don't get you first. Forget Raid. Activision, Drawer 7287, Mountain

View CA 94042.

THE ALIEN GROUP Voice Box \$169.00

When a baby says its first word, it's generally something short like "Ma-ma." But, with the new Voice Box for the Atari system, Atari's first word can be anything from "Ma-ma" to "rhynchocephalic" if you want. The Voice Box is a speech synthesizer for the Atari and Apple computers. No interface, cables, speaker, amp or external power is required. It simply plugs into the computer's serial port and automatically routes all speech into

the television

speaker. The Voice Box can include as many as 5,000 words and sounds. Using this little device, you can program aliens to hiss or moan or curse. You can invent mutant languages or insert cryptic clues into maze and adventure games. A minimum of 16K RAM is required. In addition to this Voice Box, the Alien Group is currently developing an even more sophisticated voice synthesizerperhaps one with a British accent! The Alien Group, 27 West 23rd St., New York, NY 10010. (212) 741-1770.



G.A.M.E.S. E-Z Joystick for ColecoVision \$10/pair

One of the only complaints we've heard about the ColecoVision system so far has to do with the controllers. People, it seems, prefer a joystick to just about any variation—be it disc or modified "joydisc" such as ColecoVision's. For those of you who want to improve the feel and play of your ColecoVision controllers, G.A.M.E.S. offers the E-Z Joystick. There's no electrical hook up required. All

silver disk off the center of the ColecoVision controller using a small screwdriver and then unscrew the phillips screw which holds the handle to the keypad. Using the phillips screw, you put the E-Z Joystick knob in place of the original ColecoVision handle. Simple. And, if the E-Z Joystick fails for any reason, you need only return it to G.A.M.E.S. with \$1 for postage and handling and it will be replaced at no charge. At \$10/pair, it's the least expensive way to improve a joystick. That is, of course, assuming that by putting on a little ball, you improve a joystick. G.A.M.E.S., 6626 Valjean Ave., Van Nuys, CA 91406. (213) 781-1300



Used video games



By Jens von der Heide

No matter how much you like a game, eventually you're going to want to get rid of it—you're tired of it, you've mastered it, or maybe you'll never master it. Similarly, you may want to trash your video game system some day... to get a better one. The used video game field is getting bigger and you should know a thing or two about buying and selling used equipment.

Buying or selling a used video game requires, more than anything else, common sense. You'd be crazy to walk into a store, drop some cash on the counter for a used game and walk out. For one thing, you don't have any proof of purchase. Second, used games are like used cars—you should take a little test drive before buying.

Selling

• Before you try to sell outside, tell all your friends that you're selling. You'll be surprised how many will be interested.

• When you show off your wares, don't show a prospective buyer your

worst carts first. Knock them out with something like *Defender* first.

• Advertise! Use the newspaper classifieds, trading papers, anything. A very good place for free advertising is on the bulletin boards at supermarkets.

• Be competitive. Don't over- or underprice. Nobody's going to give you \$100 for an Atari VCS when they can get a new one for \$110 and nobody's going to buy your *Berzerk* cartridge for \$25. But don't give your stuff away either. A good rule of thumb is: Try to get at least half of what you paid for it. If it's a hit game, go for 60%.

• Don't sell anybody damaged merchandise. They'll never buy from you again and you'll get a bad reputation.

Buying

Be alert. Don't let somebody sell you *Home Run* in a *Centipede* box.
Read between the lines on an

ad. If a package deal says "won't

separate," then the seller is probably trying to sell all his games in a bunch. Don't get suckered into accepting games you don't want in order to get the ones you *do* want.

• If the price is suspiciously low, check out the system carefully.

• Haggle. People selling used games are dying to get rid of them. Offer a little less money than the seller is asking.

If you'd rather go through established companies that specialize in used games, here are a couple of them . . .

> Forest Hills VG Carts 63-56 108 St. Forest Hills, NY 11375

Tradin' America Box 9151 Livonia, MI 48151-0726

Whether you play *Pitfall!* or *Jungle Hunt*, it's a jungle out there, so be on your toes. \Box



Second-hand cartridges: Seems like old games . . .

Winning at 'Wizard of Wor' and 'Gorf'. By John Madden.





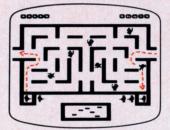
In our first Challenge of Champions, Ray Johnson of Los Angeles defeated Tony Sarkis of New York and David Hayes, a student at Cal Tech, defeated Brian Anderson, a student at MIT.

s the sportscaster for CBS Video Games, I get a chance As the sponse of the best players in the country in the "Challenge of Champions." Here's some of their winning strategies.

Tizard of Wor™: You start with three worriors. The object of this game is to defeat the Wizard, his henchmen and your opponent. This is a game you can play alone, or two can play simultaneously. When two play, you have to worry about getting zapped by your oppo-



nent as well as the Wizard, and his gang. Here's an interesting move you might want to try. Get out



into the maze fast, zip out of the escape door, come back in through the opposite side. If you're quick enough, you'll be in perfect position to blitz your opponent's three worriors before they can score any points. The ultimate shutout. Another variation is to work

together. Make a pact not to hit each other (accidents do happen, of course) and go for the record score: 99,500 by Frank Merollo (10/82) and Buz Pryzby (8/82).

> 'These are two tough games, but I know you're up to the challenge!

> > Are you up to the challenge

orf[™] is four boards in one game. Your father will enjoy this game Decause with a little luck, he'll be able to go through the four boards



a couple of times, but after the third level it starts to get faster...and faster. That's when you separate the players from the parents. You start out aggressively and after 10,000 points the bombs and torpedoes start to come hot and heavy, so be prepared to change to a defensive game plan

The record high score is still 32,700 by Horace Eckerstrom (9/82), which gives you some idea of how hard this game is.

Both Wizard of Wor and Gorf are really tough, but I know you're up to the challenge. ideoGames

© 1983 CBS Inc. "Gorf" and "Wizard of Wor" are registered trademarks of Bally/Midway Mfg Co.



Save the turtles



ENTEX Defender, Space Force, Super Cobra, Turtles

The Entex AdventureVision tabletop arcade game falls favorably into the GCE Vectrex genre in terms of screen resolution. Like the Vectrex, AdventureVision's viewing screen is defined by a matrix of light points-6,000 to be precisewhich create images retaining more than 20 times the resolution of most other stand-alone games on the market today. However, while this dot-matrix display offers a vast improvement over many models, it still can't rival either TV video games or the newer pocket-sized LCD gizmos for absolute clarity and picture detail. Another slight drawback to the \$75 system, which includes a very mobile, built-in joystick and four control buttons for

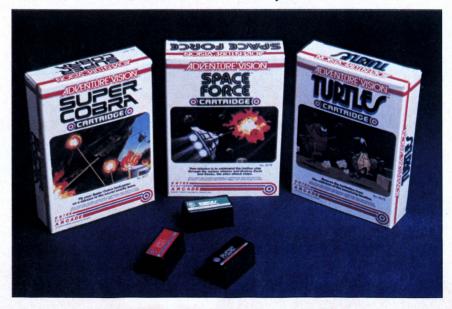
one- or two-player action, is that you have to play in a darkened room to see the screen clearly. Bright light fades the images.

Currently, four cartridge games are available for AdventureVision, which has a storage compartment on top for spares: *Defender* (included with the price of the unit), based on the popular arcade game; *Space Force*, an outer space game of meteors, hidden space ships and debris; *Super Cobra* and *Turtles*. The cartridges retail for under \$15 each.

Super Cobra is based on an arcade coin-op game by Konami. The mini-version involves piloting a helicopter 10,000 miles over mountains, through caverns, around buildings and down into an armed fortress to retrieve a treasure chest. Throughout the journey, the helicopter's fuel is being depleted and it is under constant attack by missiles, meteorites and rockets. *Turtles*, also derived from Ar-

cadeland, is a charming maze contest featuring animated beetles which chase you, the turtle, through a green puzzle. All this action is accompanied by lively sound effects. The object of the game is for the player to guide the turtle through the maze while rescuing baby turtles and dodging the enemy beetles with the help of a powerful Bug Bomb. It's easy to get hooked on this cartridge. What sets it apart from the run of the mill maze games are the Mystery Boxes which hide the loving little babies (or turtlettes). Each Mystery Box is covered by a question mark and as the turtle crawls from one to another picking up the babes, he risks running into two Boxes containing extra beetles. Then it's every turtle for him or herself!

AdventureVision features a silent mode as well as full speaker sound play, multiple skill levels and battery or AC current operation. Not a bad system, overall. \Box



Which player is making a terrible mistake?

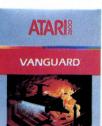
Time's up. Here comes Vanguard^{*} from Atari^{*}.

Vanguard is coming with everything it has in the arcade. And it's coming only from Atari.

There are six dangerous tunnel zones. Lasers that fire in four directions. Map displays. Energy Pods. And, of course, Gond in the Mystery City.

Run out of lives and the game's not over. Continue, but only after you've forfeited your points.

And points can be hard to come by. Which may be the most important reason to find out which



player in the example pictured above is making the mistake. The player on the left has destroyed a Kemlus snake in Rainbow Zone

Three for 100 points. But the player on the right didn't make that mistake. He's docked with a Kemlus snake and is racking up over 1000 points.

So don't leave Vanguard in the store. It would be the big-



gest mistake of all. A Warner Communications Company.



UMI software...a world of choices

A World of Fun! They're hot! They're new! The exceptional graphics and challenging play of UMI's games have made United Microware the leader in arcade-quality recreational software.

A World of Help! UMI has created programs to help professionals and homeowners "take care of business." UMI can make your life a little easier with word processing, information storage, financial management, hobbyist programs, utilities and communication programs — all with easy-tounderstand instructions.

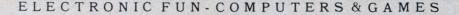
A World of Choices! All programs come on cas-

settes or UMI's own durable cartridges, depending on your selection. If you're looking for fun, or for an easier way to manage your personal business, look to UMI . . . the leader you can trust. UMI products are available at your favorite computer products store.

Dealer inquiries invited.



United Microware Industries, Inc. 3503-C Temple Avenue Pomona, California 91768 (714) 594-1351





VOLUME ONE, NUMBER FIVE

WALL STREET LAYS ELECTRONIC EGG

Are we going to wake up one morning and find that there are no more video games? Ever since the video game phenomenon began, people have been saying it was a fad, another hula hoop. Suddenly, on



Mays plays

New career for the Say-Hey Kid?

Getting into the Baseball Hall of Fame was easy. It was a lot tougher for Willie Mays to reach the second level of *Ms. Pac-Man.* Willie took on the game for the Massachusetts Association for Mental Health in Boston, where proceeds from 150 video games were donated to the charity. December 16, Atari announced that its 1982 earnings would be "substantially below previous expectations." All hell broke loose. Video game stocks dropped so fast that the New York Stock Exchange halted trading in Warner and Mattel stocks. The TV news shows speculated, "Are video games played out?"

No, and we'll tell you why. A year and a half ago, when Atari made its somewhat outlandish projections, it was the only kid on the block. Since then, about 20 video game companies have formed, many making games for the Atari VCS. For instance, in 1982, Parker Brothers entered the field with two strong games, The Empire Strikes Back and Frogger. These two games alone accounted for over \$30 million. Had Parker not released these games, that \$30 million might have gone into the coffers at Atari. Add the hit games from Activision, Coleco, Imagic, Starpath, Spectravision, Fox, M Network, Tigervision, etc. and you've got a lot of cash funneled away from Atari-and fewer cartridge sales.

At the same time, Atari's games in the second half of 1982— Continued on page 18



The winners: Mr. Ed and Ed

Father and son video jocks!

Nowadays, kids don't want to borrow dad's car—they want to borrow dad's *Astrosmash* cartridge. That's probably why Mattel decided to throw the first parent/child video game tournament.

There were 17 dad/son or mom/son teams competing for the combined high score in six Intellivision games—*Froq* Bog, Astrosmash, Night Stalker, U.S. Ski Team Skiing, PGA Golf and Lock 'N' Chase. The winners, after four furious hours and 119,540 points, were Edward L. Mandzuik and his son Ed, of Lincoln, Michigan. The father and son Eds took home \$5,000 and an RCA 45inch projection TV. Mattel also donated \$10,000 to the Variety Club.

MARCH 1983

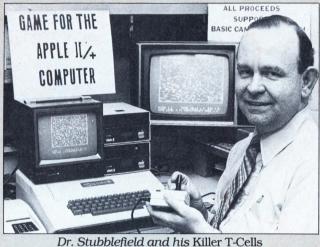
Two new games from Data Age

E. H.G. Times

CAN VIDEO GAMES CURE CANCER?

That's what Dr. Elton Stubblefield is hoping. He has invented a new game, *Killer T-Cell.* The game is similar to *Pac-Man*, except

money earned by the sale of *Killer T-Cell* will be going for basic cancer research. Dr. Stubblefield, although a brilliant



that you're not a dot. No. You are a type of medicine that captures cancer cells. All the

humanitarian, would score a lot higher if he were looking at the screen.

Fake games make waves

Have you ever seen a game called Congorilla, Pack-Man or Zig Zag? These games are illegal copies of Donkey Kong, Pac-Man and Dig Dug. They are made by video pirates who copy the circuitry of the real games very cheaply, get them out on the street and don't give a cent to the rightful owners of these games. Sometimes the arcade managers don't even know if they're buying a real game or a ripoff version. If you see a game like that, don't play it! Ripoffs are usually inferior games and take a lot of money away from the companies that have to spend a fortune for research and development of original games. The arcade game manufacturers are constantly fighting video pirates in court. You can help by pointing out phony games to your arcade manager when you see them.



The father of PAC-MAN?

Trivia wizards will know that the man who invented Pac-Man is Toro Iwatani, an employee of Tokyo-based Namco. The president of the company, Masaya Nakamura, was in the United States recently, playing Pac-Man in an Atlantic City, New Jersey casino. Perhaps someday the world will recognize Iwatani and Nakamura as technological pioneers the way we now recognize Thomas Edison and the Wright Brothers. Hopefully, Namco will soon send Iwatani to the



Masaya Nakamura

U.S. so we can meet and get to know the man who made *Pac-Man*.

ATARI

Continued from page 17 Math Gran Prix. Demons to Diamonds, Berzerk, Star Raiders, Earth-World, Baseball, Volleyball, Raiders of the Lost Ark, Football and E.T.-were not exactly blockbusters. Great hopes had been pinned on Raiders and **E**.**T**. especially, two games that EF rated just two joysticks and two and a half joysticks respectively. And after flocking to buy Atari's disappointing Pac-Man cart, players didn't rush out to buy games on name alone.

Even so, Atari made 15% more money in 1982 than it made in 1981, which should please *any* company in today's economy. Video games have not peaked yet and, even when they do, you won't have to junk your old equipment.

Incidentally, we just got a peek at Atari's latest— Vanguard. It's an excellent game.

Anti-arcade laws thrown for loophole

Recently, many com-munities have passed laws banning video game arcades. To get around this, some arcade owners have turned their arcades into "video game showrooms." They look and sound just like regular arcades, but instead of paying a quarter to play a game, you pay a quarter as a down payment on buying the entire machine! They give you a ticket every time you get change for a dollar, and when you've accumulated 5.000 tickets, the machine is yours. In other words, you're not going to the arcade to play games, you're going to try the machines out with intent to purchase one of them.

Anyone who can play a game 20,000 times without getting tired of it should own the machine!

E FA Times



On sale

IMAGIC—Games for the Commodore VIC-20 computer, including Demon Attack.

PARKER BROTHERS— In June, computer games will be available for Atari, Commodore, Texas Instruments, IBM and Apple. They will include *Frogger, Risk*, adventure games, children's games and other licenses.

SIRIUS—Repton, The Blade of Blackpoole, Type Attack, Wayout, Bandits, Flip Out and Wavy Navy.

MUSE—Castle Wolfenstein for Apple and Atari.

MONTHLY

The winner of our December contest was Rick Bryan of Taylorville, Illinois, who rolled *Kaboom!* Each month we pick a home video game and award a free cartridge to the reader who

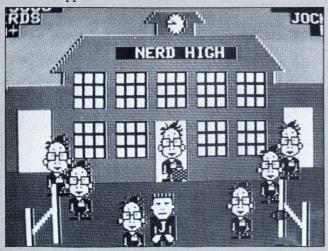
THORN EMI—Mutant Herd, Fourth Encounter, Save the Seven Seas, Ork Attack, Major League Hockey and Liberator.

CBS—Stomp It (February), Blueprint and Solar Fox (March) all for Atari VCS. Available for Intellivision in June. For the Atari 400/800, K-Razy Antics, K-Razy Kritters, K-Razy Shoot-Out, K-Star Patrol, Boulders and Bombs, Mountain King and Time Trials.

INSOFT—*Qotrix*, for IBM computer, for \$34.95.

EPYX—Monster Maze, Alien Garden, Plattermania for Atari 400/800. Sword of Fargoal, Rescue at Rigel, Ricochet, Monster Maze and Crush, Crumble and Chomp! for VIC-20.

SCHOLASTIC-Nerd Alert.



Nerd High: Gimme an N... Gimme an E...

achieves the highest score. To enter, send a clear photo of your score on a TV screen. The highest score we receive by March 10, 1983 will be the winner. The prize will be the cart of your choice. This month... *Defender*. Send entries to: *March Contest, EF*, 350 E. 81st St., NY, NY 10028.





At last! Here are the winners of our *Name That Game* contest in the November *EF*. The following are the first 110 people to correctly identify the nine mystery games. The first 100 receive video game systems and the last 10 receive video game GCE watches. Thanks to all 3,000 of you that entered!

Laurie Adler Michael Altabet Henry Arkin **David Awamlett** T.W. Beall **Troy Blakesley** Phil Breen Will Burton James Cannon Jeff Cellars Len Charest Jon Childress Jason Christie Bob Clark Troy Coleman **Raleigh Dailey** John Dalessandro Les Dennis Jerry Drake Jim Dreher Laura Droganes Ed Dugan Steven Dugmore Joe Follick Jerry Fulkerson Steven Garee Daniel Grady **Robert Geenbaum** Gerald Gross Harold Grossman Matthew Hall Christopher Harrower Steve Horlick Arthur Huntington Tim Johnson **Steve Jones** John Jordan

Francis Klein Martha Koppin Andrew Korutz Lance Laspina David Leach Alisa Lewis **Rick Lewis** Henry Malenofski David Marshall Ferdie Mazon Glenn McColgan Ann Meall Alex Meikle Craig Metcalf Frank Meyers Loredana Mossa Todd Mullen Jay Murphy Craig Nelson **Gail Niederhoffer** Kevin Nordin **Steven Paddison** Paul Peterson John Pettit Paul Ponsford Michael Proper Ralph Ralone **Richard Rae Rick Ramey** Mike Ratledae **Gary Reasner** James Redd Tony Redman John Redmann John Richardson Howard Root Jeffrey Rudolph

Charles Ruth Joe Santoli Vladimir Santos Elton Scarborough John Sisker **Bud Smiley** Penny Smith Brian Sonnenberg John Spilski William Swanger Chris Taub **Steve Tedhams Dennis Telly** Tony Tiset Jeff Tron Chris Turco **Clint Vllock** Mark Wacher Jeff Weldy Jeff White Andrew Wiesenberg James Williams Walter Wine III Lany Wong Scott Young David Zinkin

David Cardennas Robert Collier Jim Cushion Gary Davidowich Dan England Terri Jones Bill McDavitt Brent Ney Alan Oshiro Ed Vannelli



PHOENIX

Remember that you can fire with shields on. Keep moving—don't let them trap you in the corner. When the big ship comes, concentrate more on surviving than blowing it up.

> Billy Oberlander Madison, WI

Mystery, go up or down immediately and fire. If you just sit there, you're a goner.

Randy Robinson Portland, OR

BARNSTORMING

I shot this photo off my TV screen from Vestron Video's *How To Beat*

want at the village. When you reach the village, buy all your stuff first. This will usually get you a warrior for nothing. When you go to the trade shop, buy a cross bow, a lantern, rope and chain. When you go to the magic shop, buy two visions, two stuns, protect, unlock, blast and flash. When you go to the hospital, buy three or four vitamins and two medicines.

> Noel Steere New York, NY

KABOOM!

On the even-numbered levels (2,4,6,8) the bombs are vertically closer together, so try to catch them in a connect-the-dots method. Also, try to move your buckets left and right at the same speed as the bomber. Quick jerking motions mean sure death.

> Anthony Ramos Sheffield Lake, OH

SPACE INVADERS

At the beginning of each board, shoot the first two rows of invaders. This makes the other invaders travel farther to get down to the next level and you will have a better chance of destroying all of them.

Chris George Louisville, KY

VANGUARD

After you eat the energy pod, play connect-the-dots with any ship in your path. Most of the time, stay on the left side of the screen so you can see what's coming at you. In the Striped Zone, go right. You have a better chance of survival there. When you reach the City of



Home Video Games. It gives the pattern of barns and windmills in this game.

Tony Walters Sacramento, CA

PITFALL

When running underground, don't stop at all. You'll have a better time jumping the scorpions.

> Chris George Louisville, KY

DRAGON STOMPER

When you are in front of a locked door without a key, use your hand axe. Stick around the Enchanted Countryside until you gain over 1000 gold pieces. This will allow you to buy most of the things you

PENGO

The trap: You are chased by a snow-bee into a dead end. What can you do to escape? You have 29,960 points.

The escape: A lot of people don't know that if you break an ice cube you get 80 points. And once you hit 30,000 you get a new life. So break a cube. You'll die, but get a new lease on life.

Noel Steere New York, NY

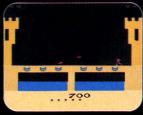
DONKEY KONG

Has this ever happened to you? Many times I've found myself caught on a ladder by a barrel or fireball. I soon remedied the situation. Grab hold of the ladder, relax the joystick, then zip right up or down. It might not seem like much, but when you get to the elevators with the tall ladders, it can be a real help. Try it!

> Timothy Kelly New York, NY

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, 250 E. 81st St., New York, NY 10028.

DAN SONNET THOUGHT HE COULD TAKE THE HEAT.





What's the matter, Dan? Having a little trouble keeping up with Imagic's® new game Dragonfire®?

But we thought you were so tough, so cool.

We never thought an expert like you would have so much trouble sneaking over the drawbridge to the castle.

Just look at you jumping and ducking and dodging that Dragonfire. Why, if we didn't know better, we'd say you were scared out of your pantaloons.

your pantaloons. Well, surprise, surprise. You made it inside the castle. Let's see how fast you can swipe that treasure before you get hit by the dragon's fireballs.

Ouch!!! Ooooch!! Aghhh!! Shame on you! At this rate, Dan, you're not even going to make it past the first level.

You should know by now that Dragonfire and all Imagic games

are created by experts

And frankly, Danny boy, you just don't qualify.





GONFIRE

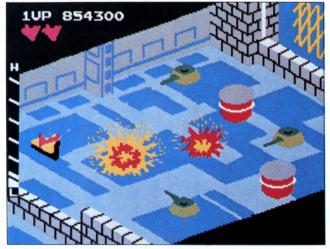
For Atan[®] 2600^{°°} and Intellivision[®] Systems

©1982 imagic inc



The missing speedroller

I read that Coleco is putting out ZAXXON in the Intellivision format. Since I have an Atari, I was wondering if Coleco will also have it in the Atari format. The last time I called the video store where I buy most of my cartridges and asked if they had ZAXXON for



the Atari, they told me they didn't and didn't know if Coleco would put one out. I am a ZAXXON lover and need to know if I can get one for the Atari. Also, will anybody have a version of TRON for the VCS?

> Glenn Gunnoe Texas



Coleco says that although there is currently no VCS version of *Zaxxon*, the company does plan to have one out sometime this year.

As far as *Tron* goes, it is our understanding that Mattel plans to have *Tron Deadly Discs* available for the VCS through its M Network.

First of all, let me congratulate you. I think that your magazine is the best in the field. I've got two questions: When I first saw a picture and read some articles about ColecoVision, I saw that it had speedrollers on the controllers. But when I bought the system, it didn't. Why? Also, I've heard that the ColecoVision has 48K of RAM, but is there really a cartridge that uses up to 48K?

Edward Carriere Quebec, Canada (similarly: Allen Gee, California and Troy Anderson, Oregon) According to Michael Katz, a vice-president at Coleco, the speedroller was taken out before the ColecoVision went to market. It was found that it wasn't used in that many games initally and there was a technical difficulty that would have prevented the ColecoVision from getting out on time if the speedroller had been included. Mr. Katz *does* hint that there may be things in the future that will not only take the place of the speedroller feature but possibly add even more to the play action of the system and games.

As far as 48K goes, Mr. Katz hastens to assure you that all of the ColecoVision cartridges use 48K of RAM and cites *Zaxxon* as a prime example. The reason some cartridges are more expensive than others is directly related to the amount of RAM in the cartridge.

I have just purchased an Atari 800 computer and I've noticed that many of the 400/800 games come on cassette and disk while others are only available on disk. What is the advantage of a game played on disk to one played on cassette? Does it justify the purchase of an expensive disk drive?

> Jerry Jones California

In general, more games are available on disk than cassette and you have a faster loading time with disks than cassettes. Other than those two differences, there is essentially no difference between games on cassette and games on disks. The graphics are the same, as is the game play. Whether or not the greater number of games justifies the purchase of a disk drive (which can run into a lot of money) depends on how fanatic a game player you are. If you plan to use your computer for applications other than games-applications that require quick file access-a disk drive is a must. Something you might be interested in knowing is that, as we understand it, many manufacturers are beginning to put their games in cartridge form. The reason behind this switch is piracy. While it's fairly easy to copy programs on disk and cassette, it is virtually impossible to copy programs on cartridges. It might behoove you to wait and see whether or not your favorite games come out as cartridges before investing in any other peripherals for your computer.

First of all I'd like to congratulate you on your very fine and informative magazine. Now, I have a question. Can Suncom's new Starfighter be used with ColecoVision and can it be purchased at a store or only by mail order?

Kin Lee New York

According to an executive at Suncom, the Starfighter cannot, at this time, be used with the ColecoVision. He added, however, that there are plans in the offing for a Starfighter-type joystick that will be compatible with the ColecoVision but that nothing definite has been decided yet. And you can buy both the Starfighter and Slik Stik at most video stores.

I'm 15 years old and a true fan of all home video games especially Intellivision and ColecoVision. I won an Intellivision and I think it's the greatest. I heard that there may be an adapter that will allow Intellivision to play ColecoVision cartridges. Is that true and is it even possible? P.S. You have an excellent magazine. David DesRochers Oregon

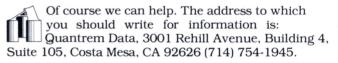
I'm afraid what you heard is a little mixed up. At this time there are no plans to make a ColecoVision adapter for the Intellivision. However, you may or may not know about Intellivision II. Intellivision II is Mattel's newest master component which is slightly smaller and less expensive (around \$150). While the Intellivision II will *not* have a ColecoVision adapter, it will have an expansion system that will let you play all the Atari games. It will also have a voice synthesis expansion module and is totally compatible with all Intellivision games, so your vast library will not be useless.

As far as a ColecoVision expansion module goes, it is possible, but the only system we know that has any plans to offer that is Ultravision. We don't know when it will be available.

You guys have a really great magazine. I am generally desperate for knowledge about video games and computers, expecially with all these great new cartridges and game systems. I own a VCS and have been considering the ColecoVision system since the interface will make it compatible with my growing library. Then I read your article about the Atari 5200. I had heard about it before but I just didn't realize what an incredible system that was! Will there be a VCS interface for it, too? David Stewart Yes, there will be. According to our Atari source, the adaptor for the 5200 will be introduced sometime in mid-1983 (around May or June) and will permit you to play all your 2600 games.

I am writing in reference to an article in your December 1982 edition of EF. The article was entitled GIVE ME VIC-TORY. In this article you gave some information on an accessory I would like to get. I have one problem though. I don't know the address of Quantrem Data. I was hoping you could help. Can you? John Stuckmeyer

Illinois





For too long I have felt that Odyssey owners were left in the dark because no one else made any games for that unit. Then I read that at this moment Activision and Imagic are producing games for the Odyssey². Is it possible? Could it be true? Great!! Fantastic!! At last!! When will they be available? And what about American Multiple Industries? Are they planning to do the same? If so, please print their address.

> Larry Reh Kentucky

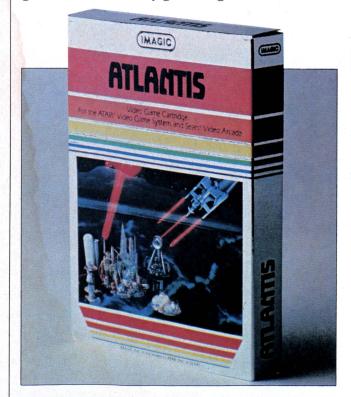
Calm yourself! Yes, it's true. Imagic has made its blockbusters *Demon Attack* and *Atlantis* for the Odyssey² system and they were both scheduled to be released in March. They should be available even as you read this issue of *EF*. As far as Activision goes, the company is currently "studying other computer and video game systems" for which to a make its software. The interpretation of that statement is up to you. AMI, on the other hand, has no current plans to produce games for the Odyssey² but I'll give you their address anyway: 18911 Nordhoff St., Northridge, CA 91324 (213) 885-7100.

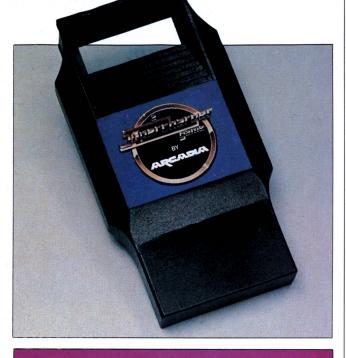
ELECTRONIC FUN-COMPUTERS

Recently I went to purchase the cartridges DEMON ATTACK and ATLANTIS but, to my surprise, the games made for my Intellivision had graphics that were not as good as the Atari versions. The two DEMON ATTACK and the two ATLANTIS games had nothing in common graphically. Why were the cartridges for Intellivision and Atari so different?

> Brian Inawaga Hawaii

Clearly the two different systems have different capabilities. While it is generally conceded that Mattel graphics are better than Atari graphics, in this case the Atari's capabilities—with all its limitations—won out. According to a designer at Imagic, the Intellivision allows for more details in the background—hence the planets in *Demon Attack*, which are not possible on the VCS. But objects that move on Intellivision games are limited to one color while on Atari games they may be multicolored, as with the rocks in *Demon Attack*. He also adds that there are 256 possible colors that can be used in Atari games while Mattel only gives designers a choice of 16.





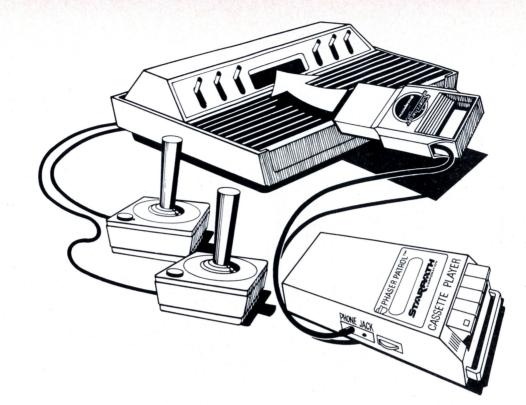
I've been using the Starpath Supercharger for about a month now. The graphics are fantastic. My questions is: Are there any plans for other game producers to produce games for use with the Supercharger? William McDavitt Florida

We called several independent manufacturers and so far none of them have plans to make Supercharger-compatible games. Our guess is that they're waiting to see how well it does before they go to any expense.

> Mark Turmell stated that the Atari VCS can only have two moving objects at once but I noticed that most of my cartridges have more. Why? Curt Kretzer Maryland

Mark Turmell has decided to answer this one for you himself: "It's two *independently* moving objects that can't be done simultaneously on the VCS. You see, images are stored in masks. Only two of these masks can be defined in high resolution at any one time. For instance, in *Freeway*, the chicken moves vertically and the cars, as one unit, move horizontally. The chicken represents one mask and the cars the other. And, in a game like *Asteroids*, in one frame you see your spaceship and one rock. In the next frame, you see your ship and another rock. But it all happens so fast, you can't even see the flicker because the image remains on your retina after the next image appears." Got that?

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.



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Inside the Supercharger[™] are special digital electronics which multiply the VCS RAM memory 49 times!

Plus, an audio interface cable attached to the Supercharger™ plugs into the earphone jack of any cassette tape player.

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The Supercharger[™] upgrades your VCS with state-of-the-art electronics.

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Electronic Games Magazine calls Supercharger[™] computer games "one of the greatest products ever to enter the field of home videogaming." Video Review calls them "the hit of the holiday season." You'll call them the most challenging games you've ever

You'll call them the most challenging games you've ever played.



Many more new games to be released in 1983.



(formerly Arcadia Corporation)

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Yoo Hoo, Feminists . .

While everyone is getting up in arms over the rash outbreak of Xrated video games, nefarious things are going on elsewhere in the game universe namely, sexual stereotyping. Parker Brothers has introduced a new video game which it calls the "first video game cartridge for young girls." Based on the popular toy character, Strawberry Shortcake Musical Match-Ups represents a quantum leap backwards for feminism. In this return to sugar and spice, Strawberry and her friends Lime Chiffon, Blueberry Muffin and Huckleberry Pie (not only is it cute, it's caloric as well) decide to stage a talent show but Purple Pieman (the evil Purple Pieman) wants to thwart their efforts by scrambling their bodies up. The object is to unscramble them.

What is the world coming to? Can we expect to see games aimed specifically at other groups? For example, senior citizen games in which ominous muggers try to steal the elderly's Social Security checks; tall people games in which basketball players routinely step on jockeys; and, finally, dentist games, in which Strawberry Shortcake is eliminated because she causes cavities.

Basket Case

Today you can get products that do everything. A far cry from the old Acme Kitchen Helper that only diced, spliced and sliced. Now you've got radios that play TV shows, TVs that play radio shows, computers that cook, turn on the lights and keep your accounts, etc. So if you've put off purchasing a personal stereo just because all it did was play music, the

Playmates and stereotypists

Sanyo Sound & Games system is what you've been waiting for. This Walkman-style unit features an AM/FM radio and a built-in LCD screen on which you can play basketball games. It's got two playing speeds and twin pushbutton controllers

and you can hear the game sound effects through the headphones. Crowds, cheers and players are included. Cheerleaders in short skirts and hot dog vendors available at a slight extra charge.

RAM and X

If you've been playing your video games on the 12-year-old family color TV set, we've got good news and bad news for you. The bad news is that, according to the *New*



England Journal of Medicine, television sets that are 12 years old or older emit something called X-radiation. This means that those aliens you've been shooting at may be shooting back with more than just



harmless laserguns. Color sets built before January, 1970, emit more radiation than newer models, says the Los Angeles Herald Examiner; and the radiation is a problem because people sit very close to the television when playing games. The good news is that Allan Schlosser, director of public affairs for the Consumer Electronics Group, says you don't have to worry. Despite what is said in the medical journal, it was never proven that television receivers emit hazardous levels of Xradiation. The best news is that if you don't tell your fold the good news, maybe you can get a new TV set out of it.

Hi-Res, Low Necklines

It's getting difficult to tell the difference between pornographics and computer graphics these days. Especially now that Penthouse magazine introduced a new print advertising campaign designed specifically for video games and home computers. The campaign consists of twopage, four-color ads which appeared in the September through December issues of a monthly trade publication for marketers of computers and electronics equipment. Using the headline "Hello, I'm user-friendly," (which, we think, should have been closely followed by "Fly me"), the ad gave reasons why Penthouse is the best magazine for the software industry to use to reach its target market. Apparently 86% of all Penthouse readers use the magazine as a source of information regarding new products (and we always thought people read Penthouse for the interviews); 13% plan to purchase a home computer in the next year; and 23% now own

and 17% plan to buy a home video game system within the next year. The artwork is a *Penthouse* centerfold converted into computer graphics. She comes with 32K but is expandable to 36D.

Type or Die

In order to teach some things, you've got to inspire the fear of God in students. In order to teach typing, it seems you've got to inspire the fear of aliens. At least if you learn by using Master-Type, a new computer profrom gram Lightning Software for the Apple and Atari computers. The

program is designed to help students master touch typing at their own rate by teaching the skills in a video game format. It was developed, according to Bruce Zweig, president of the company, because "the universe is not always kind to those who type slowly." (This, we feel, practically qualifies for Quote of the Month.) MasterType combines video game violence with Katherine Gibbs simplicity. The object of the

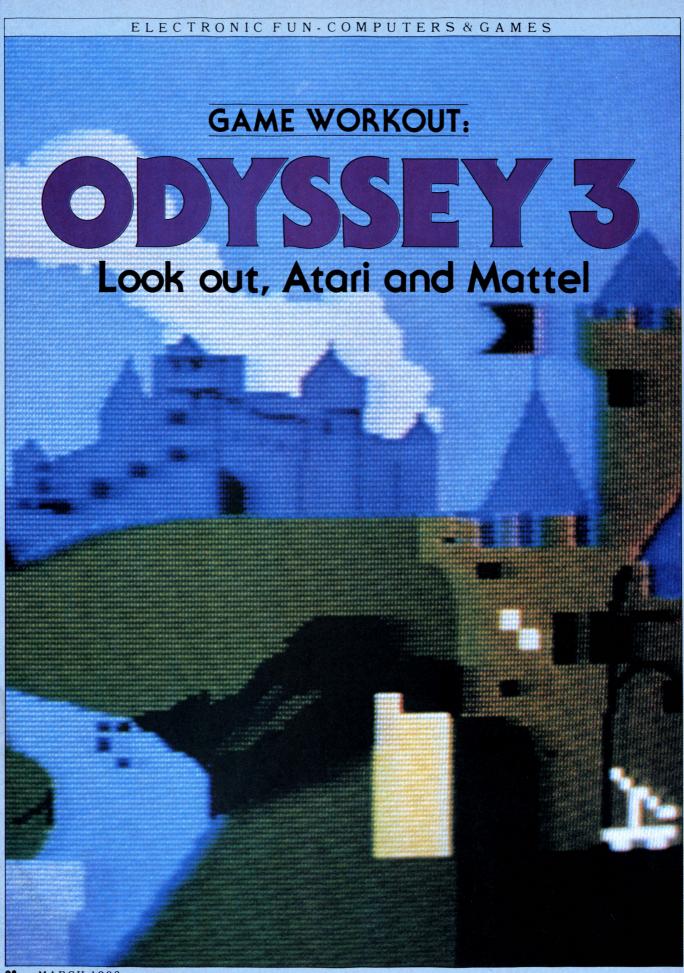
COMMODORE

by missiles, satellites and atomic fireballs which flash across the screen. Even if it doesn't teach you to type correctly, it will certainly teach you to type fast. In fact, this may be referred to as survival of the fastest.

We would like to see this method of teaching applied to other areas of schoolwork as well. For example, a violent program in, say, music wherein you are taught to sight read the scale (and other great works) and if you're caught flat or sharp, you're zapped to



game is to correctly type certain words or letters before you're blown to bits death by tone deaf aliens from the planet Allegro Moderato.



You are floating above a large metropolis. Never mind worrying about what you are doing so high above town. What really concerns you are those six or seven small squares scattered throughout the city below that flash on and off ominously.

On the ground is a tank which you control. You must maneuver your tank through the streets of the city in order to determine exactly what it is that's going on. There's a catch, however. If you don't reach a flashpoint within ten seconds, that section of the city will be reduced to rubble.

By Dan Gutman

Okay, you've reached the flash point. Suddenly you are transported, close up, to that area of the city where you see little marching aliens coming at you from all over the screen. These little mothers are relentless. If you're fast enough to blow them all away, you can watch your score mount in proportion to how much of the field they haven't trampled. Live or die, you must go back to the city to find another flash point and vanguish

referred to as Odyssey³), the system that will determine if it's "third generation" or "strike three" for Odyssey. EF flew down to company HQ in Knoxville, Tennessee to give this baby its first tryout.

To start, a few specifics. The Command Center (let's call it CC from now on) will be in the stores in July. The list price will be \$199 (that means you'll probably be able

> or so). It will have 16K exter-

CC goes on

sale, a voice module will be

offered. At the

same time, a telephone mo-

dem will be

released so

you can hook

up your Odyssey to tele-

communication

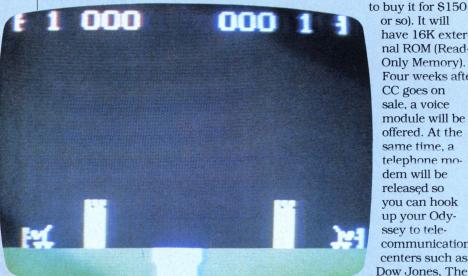
centers such as

Source and Comp-

nal ROM (Read-

Only Memory).

Four weeks after



more aliens. Robotron, right? No. This is Flashpoint, one of the most exciting home video games that will come along this year. And it's the first game scheduled for the Odyssey Command Center (also

U-Serve. For those who know their computers, the modem will be a Bell 103 standard with full duplex, 300 BPS transmission rate, direct connect and switchable for answer and originate modes. Finally, by the end

of 1983. a computer programming module will be available. This module will have (Random Access 16K RAM Memory) with optional storage packs for program and data reten-

tion.

Obviously, Odyssey means business. But it hasn't always been like that. Up until now, Odyssey has been the lost sheep of the video game fold. It had one of the first units back in prehistoric times (1974), but its primitive graphics were quickly eclipsed by the Atari VCS. By the time Odyssey² came out, Atari had staked out the space game turf, Mattel the sports game turf, leaving Odyssey no specialty other than educational games that made use of its one distinctive feature, the keyboard. But hardcore video gamers want to run and gun, not Dick and Jane. For the past few years, Odyssey has been laughed at while companies like Coleco introduced "third generation" superior game systems. When rumors began circulating that there was an Odyssey³ in the works, people began to wonder—has Odyssey finally gotten it together?

Physically, the new unit is ultra-

The Odyssey couple: On opposite page, graphics from the new SMITHER-EENS. At left the old Odyssey² format. modern. It is shaped somewhat like the Atari 5200—as if it were designed in a wind tunnel. The keyboard is no longer that "cheap" membrane kind. Instead, it is tactile—the keys depress as they do on a good calculator. You can almost touch-type on it, should you want to. This certainly will come in handy

PICKAXE PETE

when the computer module is introduced, but the games we tested only used the keyboard to start or reset a game.

The two joysticks are housed right in the unit, on the top left and right. You can leave them right there and use them like that or remove them and hold them in your hand. It's a good option—if you leave the sticks on the unit, you can very comfortably use one hand for the stick and the other for the fire button without having to worry about holding the base of the stick. CC is the first system to do this. On *Flashpoint* you leave the sticks on the unit, using one hand to shoot and the other to move, as in *Robotron*.

Sticks and Phones?

Should you decide to take the sticks out of the CC and hold them in your hands, there is a three-foot cord (too short, I think) from joystick to system. In addition to being short, I also felt the cord was a little flimsy. But at least it's plugged into the system (unlike Odyssev²) so if one breaks, you can easily replace it. Unlike Atari's and Coleco's eight-pronged plugs, the Odyssev joysticks snap in with a simple modular jack, just like a telephone. In fact, I wondered if I could plug the joystick into my phone jack, hit the fire button and blow up Ma Bell. That might make a really interesting game.

The joysticks are a joy not only to the righties in the world, but also to the lefties. Instead of the standard array of fire buttons, there is a "fire bar"-like the space bar on a typewriter-that goes all the way across the joystick. Pressing anywhere on the bar serves to fire a missile, jump, shoot or what have you-another first in video gamedom. The joysticks also give you much improved action over those clunky Odyssey² sticks. Unlike Atari, Intellivision or Coleco joysticks, Odyssey's are not encumbered by calculator keys, function buttons and the like. All these are on the unit's keyboard. Odyssey has no pause feature, though.

Finis for Fins

A few incidentals. The new voice module is smaller and less obtrusive than the space shuttle-size Cadillac tailfin that graces Odyssey². It hides in the back of the unit, as will the computer module when it arrives. You no longer have to plug games in *through* the voice module. Instead, there is a well in the middle of the unit to accept cartridges. The well is completely open—I felt there should have been some sort of door over it to keep out dust and baby's fingers.

Okay, okay, who cares about all that stuff? How are the games?

That's what counts.

As mentioned earlier, one of Odyssey's areas of concentration in the past has been educational games. Now, with the increased graphic capability of the Command Center, there will be more emphasis on attracting arcade and movie licenses. There is talk of a big arcade hit being packed with the unit, but we have no names yet.

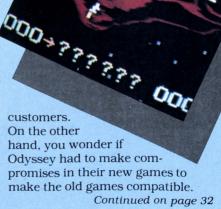
Right now there are three categories of games for the Odyssey CC.

1. The entire library of Odyssey². Yes, plug in those old O² carts and they work like a charm. They won't be enhanced in any way, but at least all the Odyssey² owners won't have to chuck their old games in order to upgrade. It is refreshing to see this compassion for previous

FREEDOM FIGHTERS

1 1 1

O



LETTERS

Continued from page 8 hard to believe that you would skip them, because they make a good deal of popular games for Atari. David Ferguson

WISE GUY

On page 31 of your December issue, you say, "... featured a firebeathing (sic) dragon ..." I am a 12-year-old boy who happens to be the champion speller of my class. Whenever I purchase magazines I expect them to teach me new spelling skills. Your spelling error is, according to my standards, unforgivable! I feel entitled to impose some sort of punishment on your organization. Send me a free issue in order to soften my upset intellect. Marco Gonzalez

Clearly, we simply ran out of "r"s in the December issue. We promise to over order for the next issue so that this terrible thing won't happen again.

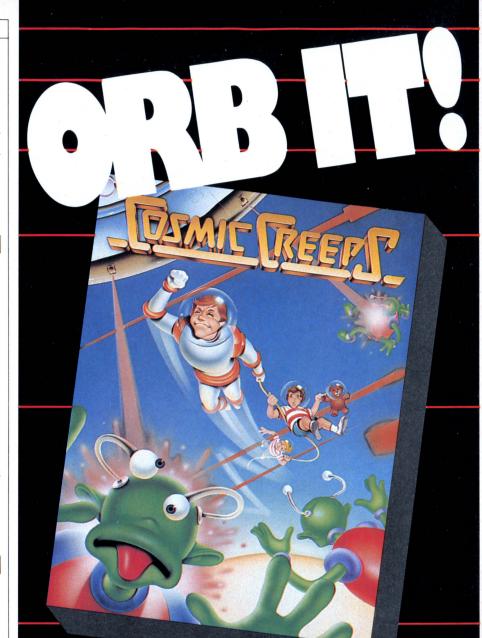
PLAYOLA?

You have a great magazine, but why do you spend so much time on Atari? They are not gods like you make them out to be. Just because there are nearly 400 games for their system doesn't mean they are any good. You most certainly are being paid off by Atari to say good things about them.

Ronald Rampolla If we were being paid off by Atari, we could all retire. Ronald, we cover Atari because a lot of the readers own Atari systems. And if Atari comes out with a good or bad game, we say so.

RATE 347 GAMES

Your grades lose their meaning when you compare games from different systems. How can you compare an Atari VCS game with a *Continued on page 33*



Plays on the Atari[®] 2600 Video Computer System and Sears Telegame[®] Video Arcade[®]

> Cosmic Creeps will send you right into orbit-out of this world to a galaxy where Space Skeeters carry unsuspecting Orbinauts into oblivion. Where Creeps are constantly on the attack. And where it's up to you to save an entire generation of Cosmic Kids.

> Even the most space-weary videonauts will love Cosmic Creeps. It's a test of astronomical skill, strategy and stamina. And it's a lot of fun.

For the whackiest blast-off ever, take a trip to the store and get Cosmic Creeps. It's a space game from a different universe.



43334 Bryant Street, Fremont, CA 94539

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Continued from page 30

So if you buy the Odyssey CC, there are 50 or so O² games waiting for you. Of course, I never said the O² games were particularly good. If they were really good, they wouldn't be coming out with a new system. However, they're there if you want them. The best ones—Attack of the Timelord, Pick Axe Pete, K.C. Munchkin (if you can still find one), K.C.'s Krazy Chase and Freedom Fighters.

2. Remokes. Odyssey has taken some of their most popular Odyssey² games and juiced them up a bit for the CC. All of these can be played on Odyssey² as well, but will not be enhanced. Specifically . . .

Freedom Fighters—This Asteroids/Defender-type game is probably Odyssey's best space game. In the new version, instead of a plain black field, a colorful moon and large red asteroid float before you.

FLASH POINT



Pick Axe Pete—A brilliant bricklike field now surrounds Pete. It also obscures the ladders somewhat.

Smithereens—The new graphics here remind you of Coleco's Smurf and are just as good. A beautiful background of trees, blue sky and winding paths.

Attack of the TimeLord—The earth, with a geographically correct map of the U.S., gives you added motivation to "Defend Your World."

Great Paintings

As far as graphics go, these new games are a tremendous improvement over anything Odyssey² could ever do, and some are as good as anything on the market today, including ColecoVision. However, the Odyssey engineers have made the all too common mistake of sacrificing game play for graphics. These new games play exactly the same as the old versions, only with fancy backgrounds.

This strategy seems particularly absurd in a game like Smithereens, where the gorgeous country background just sits behind the same old blocky stick figures as in the original Smithereens. Wouldn't it have been smarter to can the old games entirely and make the game play better? Video gamers want great games, not great paintings. Nobody who owns the old games is going to buy these "enhanced" versions and those who stayed away from Odyssey games the first time around aren't going to buy them now that they have planets in the sky.

In all these games, the dubious privilege of typing your name on the screen is still there. I have never been able to figure this one out. Lists of high scorers are great with arcade games, where hundreds of people may play the game over the course of a day. But when I'm playing a few games with my sister, I don't need to see my name up there in lights. Additionally, the Odyssey designers tell me that because of this feature, there is a limit to the number of digits your score can be. In Odyssey games you score in the hundreds, not thousands.

TIMELORD

3. Games that are for the CC exclusively. This is where we'll decide if it's third generation or strike three for Odyssey. There will be six games offered initially, and unfortunately we were only allowed to see one of them in this sneak peek of the system. But if the games for the CC are nearly as good as Flashpoint, it's time to consider Odyssey as your next game system. Looking at Flashpoint and some of the graphics generated on the enhanced versions of old Odyssey games, you can see that the Command Center has tremendous potential. This time around, Odyssey won't be left behind in the technological dust. The modem and computer module are just right for these changing times. If they are Continued on page 97

LETTERS

Continued from page 31 ColecoVision game? You gave Atari's *Breakout* an A in graphics and playability and then you grant *Zaxxon* the same grades. That's crazy!! I think you meant to compare all VCS games with each other, all Coleco games with each other, etc. After all, if a game is not compatible with more than one system, a rating system shouldn't be.

William B. Simpson

ATARI VS. COLECO

I've been hearing about Atari and Coleco going to court because of some copyright thing. Is this a fact? Lyle Jayma

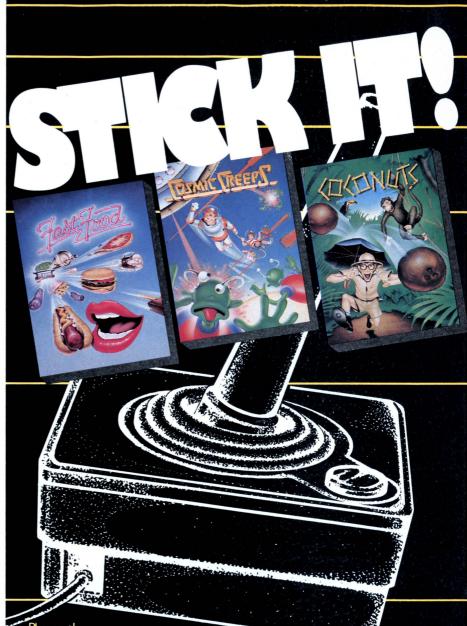
Fact, Atari sued Coleco, claiming that the Coleco expansion module #1 was essentially a stripped down Atari VCS. Then Coleco issued an antitrust suit against Atari.

BAD PORTS-MANSHIP

I own the Atari 5200. I've read both the articles about Coleco and the Atari 5200. You gave quite a bit of space to Coleco's expansion port but did not even mention the Atari 5200's. If you'll look in the back on the bottom right, you'll see a small door. Behind this is the same thing that's found behind ColecoVision's front door. Yes—Whalla and Hooray!— It's Atari's expansion port. How could you possibly write an article about the 5200 and not mention this small miracle . I think you owe Atari an apology.

Robert Kincaid You're right. We grovel with mortification. Atari, please forgive us.

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



Play on the Atari® 2600 Video Computer System[™] and Sears Tele-Game[®] Video Arcade[®]

When it comes to video games, there's nothing else like a game by Telesys. Nothing whackier. And nothing more challenging.

Eating little white dots is pretty bland, compared to munching the flying burgers, shakes and fries in *Fast Food*. It's a furious feast!

Keep Stanley I. Presume hot-footing it as he dodges Coco's barrage of nuts in Coco Nuts. But don't laugh-this is serious business. It's a knock out!

And try *Cosmic* Creeps—a space game that's out of this world. It's up to you to save the Cosmic Kids from Skeeters, Creeps and oblivion. It's a blast!

Stick it, with Telesys video games. You'll be stuck on them for good.



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A CONTINUING SERIES

The arcade looks as if you need State Department clearance to enter. War-room monitors and computer terminals face plush captain's chairs and you suspect that even the air is germ-free. But it's okay, you're feeling confident. You know they're expecting you. The rest of your team is already there, waiting.

You exchange hellos with your teammates, then each of you takes a seat behind a multiscreen console and puts on a pair of headphones. Suddenly, the computer speaks a name, *your* name.

It's time. There's no need to put in a quarter—that's been taken care of. You check your console just once more: joystick, fire buttons, intercom, gauges, a central monitor, a trio of special graphics monitors, maps of outer space, more buttons, more controls.

On the main screen is the starship *Enterprise*.

You're in charge-your team against comBy Frank Lovece

Λ



puterized Klingons.

Your video game fantasy is about to come true.

For the last month or so, San Diego video gamers have been able to rent time-at about \$10 an hour-at the first Simutron Tournament Center, a unique arcade with 16 consoles similar to the one described. There, you can play a video game based on Star Trek—The Motion Picture which uses actual footage from the movie. You can play singly or as part of a team against the computer or against other players, using the computer as your abstract arena. In a sense, Simutron has brought airplane flightsimulators-the kind novice pilots use in training-down to earth. And they're making the fullest use so far of something that could well change the face of video games altogether: interactive videodiscs.

A videodisc, whether interactive or not, is a

34 MARCH 1983

sort of record that plays back sound and pictures (usually movies or concerts) on a TV set or some other kind of video monitor. An interactive videodisc is specially designed to take advantage of such video tricks as freeze-frame, slow motion, frame-by-frame advance and, perhaps most importantly, random access—the ability to jump almost immediately from any point on the disc to any other. Interactive videodiscs were originally designed for teaching, as in the flightsimulators, but Army tank gunners and other such playful people discovered their teaching devices made great game machines.

Video games have always been interactive, of course—you interact

with a computer, which responds to you based on such input as the direction you steer the character. But the interaction has been limited since conventional video games can't store images. They can "merely" generate computer animation. Add an interactive videodisc,

however, and you open up a world of stored, liveaction images: Star Tre c. Pro football players. Real actors in a murder mystery. Depending on your choices, vou can guide an unfolding plot into any number of branches: Take one fork in the road, and you've acknowledged two choices. Take another and you've acknowledged four. Another and it's eight, another, sixteen and so forth. Soon you're into hundreds of branches. Mix this array of liveaction images with com-





what a game should look like. "Interactive-video games mean the isolationist game experience is ending," declares Dave Grossman, of NFL Films Video, part of the National Football League. He should know. NFL Films Video is busy putting together film snippets of three years' worth of San Diego Chargers/Los Angeles



Laserdisc games will add a true element of interactivity to video gaming. The use of actual photographic footage (as shown above) is what will really set laserdisc games apart from today's garden-variety video games.

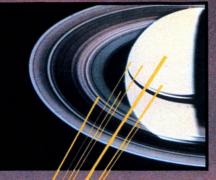
puter animation on the screen, and you've got a generation of games as different from today's as today's are from pool.

This interactivity could change more than just our expectations of Rams football games for Californiabased Advanced Video, which will take a multitude of these plays and craft an interactive disc for use in the first live-action sports arcade game.

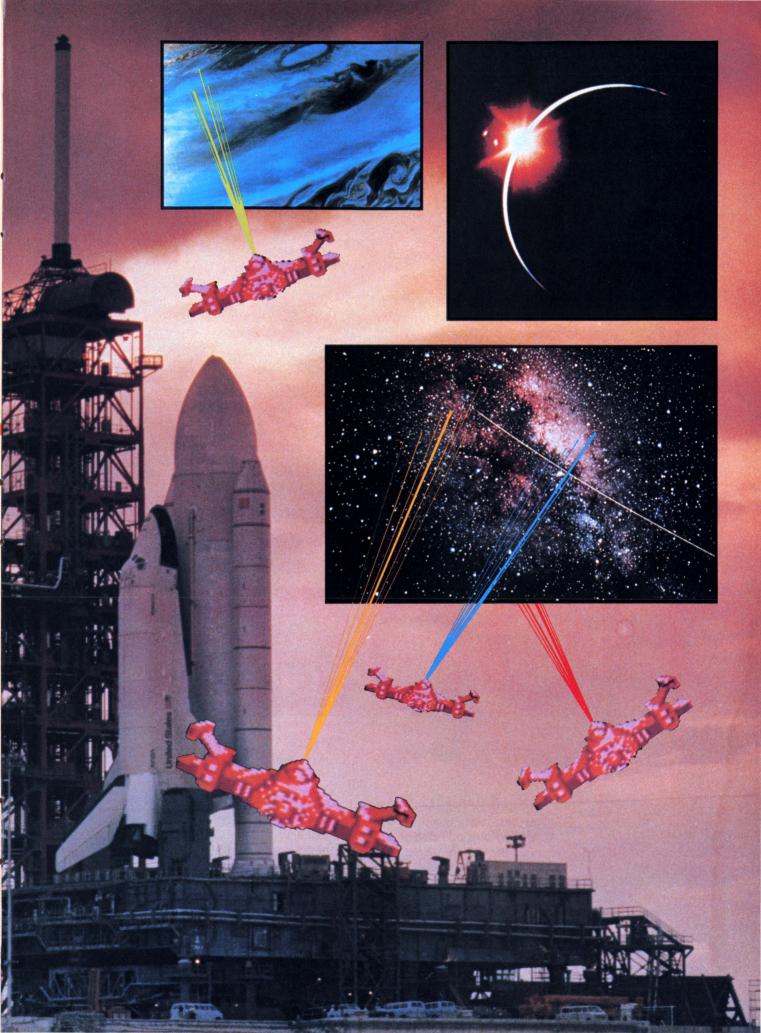
Due out by the start of the fall football season, the game will let you coach a team and see live-action players—instead of simple animated figures—execute your plays. And, as Grossman suggests, the game need not be played solo. Advanced Video president Rick Fisher says he designed the game so that "you can choose to play either against the computer or against another person. It's a very social game."

The next generation of laserdisc games will knock your socks off.





Space is no longer the final frontier. First it was conquered in standard video games and now it's being taken to new realms of realism through the use of interactive video discs which bring the universe as close as your nearest disc player and computer interface.



So is Simutron's Star Trek—though it, like the tentatively titled *Pro-Action Football*, can be played one-on-one against the machine. In fact, while the broadened scope of games enhanced by interactive video may be well-suited to team play, the heroic myth of the lone warrior battling against all odds will probably endure as long as there are video games and scotch ads.

Going Solo

The best example of that solo spirit may be Sega's upcoming interactive-disc game, Astron Belt. Perhaps the most striking video game ever devised, the singleplayer, cockpit-style Astron Belt blends live-action. interactive videodisc images with computergenerated graphics to produce a first-person space game reminiscent of the climactic battle scene in Star Wars. (Astron Belt's premiere showing at the 1982 AMOA Show even used a Star Wars-like, Japanese science-fiction film providing the live-action ambience and obstacles.) Thanks to the interactive videodisc it uses, Astron Belt's action scenes can change almost instantly according to the player's commands and the progress of the game. "Further down the road," says Sega's Dennis Clark, "they're even talking about having the photographed planes firing back at the player." That won't happen, though, until well after Astron Belt hits the arcades this summer as planned.

Yet not only is Astron Belt's single-player design the exception rather than the rule for arcade games, it's the exception for such games in general—virtually all interactive-disc games aimed at home use are multi-player.

This is ironic since the idea of interactive discs came out of a 1960s educational vogue called "computer-assisted instruction," or CAI, that thrived on individuality. In CAI, film strips or slides presented information individually to students, then asked them questions. Based on a student's responses, the problem would tell him or her to skip ahead to such-and-such chapter, or go back, or try the same one over again.

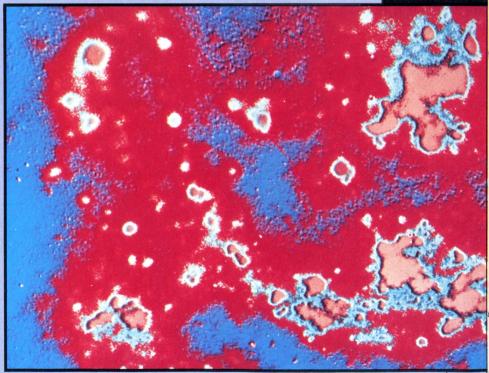
CAI, though still in use, never caught on in a big way. It did, however, open the doors of perception that would lead to interactive home videodisc games.

Starting at such hallowed halls as the Massachusetts Institute of Technology and the University of Nebraska, high-tech research evolved to a point where a viewer watching an interactive disc of the streets of Aspen, Colorado could, by just touching the screen, "steer" down any street he chose, wander inside buildings, even read restaurant menus. A game just *had* to come out of all that. And it did, although on a far less ambitious scale.

The first interactive-disc game for the home was really just a part of the first interactive-disc teaching program for the home, *How to Watch Pro Football* (1981). It conpresented a series of plays, then asked the viewer/player to predict if a run or a pass would be coming up next.

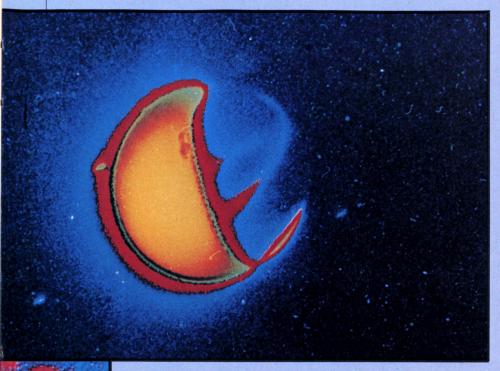
How to Watch Pro Football sold well and won critical attention, and so a second interactive disc was planned that would not only expand on the idea of interactive-disc gaming, but represent the state-of-the-art in interactive disc for more than a year.

It was called *The First National Kidisc* (1981). Its games were mostly traditional—riddles and matching shapes to names of objects, for example. However, the disc also had viewer/players jumping all over the place,



tained step-by-step lessons in football fundamentals, and did just what the CAI programs used to—ask viewers questions, then, based on their responses, direct them to other parts of the disc. The game here was the "final exam," a portion called Freeze When that utilizing freeze-frame, frame advance and slow motion as no disc ever had before.

With the success of these first efforts, a bevy of producers scurried to channel their creativity into this brand new form of communication. The possibilities of interactive



Using freeze-frame and random access techniques, players of interactive video disc games virtually control the outcome of the game.

fiction were staggering.

But how to make it palatable? Combine the fiction with a game, perhaps. It took almost a year before anyone was able to realize such a grandiose plan, but the recent release of Murder, Anyone?, the first in a series called "Mystery-Discs," proved it could be done-and well. Murder, Anyone? is a

video version of the popular board game Clue. It traces a couple of days in the life of 1930s private eye Stew Cavanaugh as he tries to track the person or persons unknown who killed ruthless

millionaire Derrick Reardon -assuming Readon didn't kill himself. At four points in the disc, you must choose one of two directions in which Cavanaugh must take his investigation. Using freezeframe, random access and a twochannel soundtrack, this branch-

ing leads the game to one of 16 possible solutions. Characterized by slick production values, location shooting, good acting and a wry sense of humor, the first Mystery-Disc is easily worth the \$29.95 price of admission. Vidmax, the producer, is already set to release the next in the series in March, and plans to have a total of five interactive-fiction games out by the end of the year.

Where will interactive fiction go next? Mike Harvey, president of San Francisco's Leviathan Studios, thinks it could become even more abstract and dream-like, not to mention more complex in terms of branching. His company's first interactive disc project, The China Basin Murder(s), is on ice and may not come out for a while, but the second, due to come out in April, is even more ambitious than the MysteryDiscs: The very apt title is In Vision and Dreams.

"The way the narrative is constructed," explains Harvey, "it's as if you had fallen into the middle of a dream. The disc really has no beginning and no end of its own, just whatever you construct. It's up to

you to take the story forward or explore the story's past. It'll have many, many branches"-so many, Harvey hopes, that In Vision and Dreams will "provide a link between present, 'standalone' discs and computer-controlled discs."

That, as the arcade-game makers already know, is where the dragon sleeps. A home computer interfaced with a videodisc player could redefine the limits of random accessing drastically. Predicts Bruce Green, "It'll happen soon-computers will drive disc players and interactivity will be geometrically increased.'

Already, the dragon is being nudged. Both Magnavox's model VC8010GY and Sylvania's VP7200 videodisc players come with a computer interface jack. (The remaining brand of its type, Pioneer, doesn't have this jack; the reason, according to one insider, may be that Pioneer was considering interfacing wirelessly.) The jack accepts a standard RS-232 interface, yet its use is optimized only with a few specificand expensive-peripherals which include a Z80 microprocessor, such as the \$395 DiscMaster 1000 from Cambridge, MA-based New Media Graphics. But the simple fact that the Magnavox and Sylvania parent-company Phillips saw fit to include the jacks at all is promising.

Big Bucks

Yet with only 75,000 videodisc players in the country so far-of which perhaps 50,000 constitute the population of the laser-type player needed to play all current interactive discs, the incentive to produce more interactive discs for the home may be tempered by harsh economics. Observes Simutron's Dave Jenkins, "The biggest reason people haven't marketed interactive games more aggressively is the expense.'

This seems reasonable. Arcade games are certainly expensive enough to produce, distribute and service without the added technology required for an interactive videodisc. And while home videodiscs are relatively cheap at \$25 or so apiece, laser-type videodisc players can run from \$500 to \$700.

GAMEMAKERS Why is by Dan Gutman

Preston Stuart is smiling because he is an independent video game designer. But he is more than that. Video game designers are often thought of as offbeat young men with thick glasses, locked in their rooms playing with their computers 24 hours a day. Preston Stuart doesn't think of himself as a computer programmer. Yet he has worked with Atari and the Children's Computer Workshop as a game designer. How does a guy who doesn't know his RAM from his ROM get work in the video game business? We talked with Preston Stuart to find out the answer to that very question.

> **EF:** Are you a computer genius? **PS:** Definitely not. I first got into the field of computers when I was hired by a company as a graphic designer.

> **EF:** What does a graphic designer do? **PS:** He or she is involved with color, shape and form. A graphic designer will design a label, a product, a page in a magazine, an ad layout, a record album cover . . . or a video game.

EF: Don't you have to know program-

ming to design a video game?

PS: No. I've found that although quite a bit of the actual video game designing has been done by these "computer persons," programmers aren't necessarily geniuses at creating things that other people will consider good-looking or fun to play.

EF: So you work with a programmer? **PS:** Yes. Producing a video game is a multi-leveled task. Just because you design a game doesn't mean you can run out and research it or that you can write the instruction booklet or design the packaging for it or that you can distribute it. If anybody can do all those different tasks, that's terrific.

> But in general, it's a team effort. Artists and programmers often work together. You don't have to know how to build and rebuild a car's engine to design the look of the dashboard. To design a video game, you have to know about

a lot more things than programming. A certain amount of mathematics is important. A certain amount of whimsy and good old logic is necessary, in addition to an understanding of how people perceive things. Your stereotypical "computer nerd" can create very dry and boring games.

EF: Actually, the reason why the first video game, COMPUTER SPACE, failed, was because it was too complicated for its time. All of Nolan Bushnell's friends loved it, but they were all computer programmers. Then he made a complete about-face and invented a simple game, PONG.

PS: Right, and eventually the public was ready for advanced space games.

EF: Do you know anything about computers?

PS: Of course, but I don't do much more than BASIC programming. As long as you are equipped with a certain knowledge of how computer systems work and the limitations with color, shape, size and location on the screen, you may be able to design a video game.

EF: Does that mean anybody can just walk in off the street and be a game

designer?

PS: No. The field is booming and the game companies are deluged with millions of ideas. I'm sure people are writing them down right now on the backs of envelopes and sending them off to Atari, where the majority of them will end up in the paper shredders. It takes more than just a good idea. Do you think a record company accepts lyrics that people send in? No way. They need hooks, sound, instruments and arrangements. Similarly, to sell a video game, if you're not a programmer yourself you have to team up with one to complete the game idea. He might say, "Okay, we have four colors on such and such equipment. We have an eight bit boundary. If you can locate things at a certain spot on the screen, they can be moved by bytes instead of by pixels." That means they can be moved in blocks-as opposed to dot by dot-and it will take up less memory.

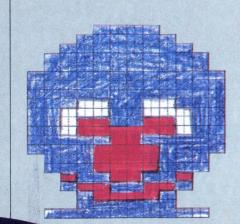
EF: So games can be designed by groups instead of individuals? PS: Sure. I did some work with CCW, the Children's Computer Workshop, which is a division of the Children's Television Workshop. We worked in a group consisting of an artist, a project manager, a creative manager, researchers who would bounce images off kids to see if they recognized them, programmers and technical people. By working in a group like that you have more input and you can achieve things faster. Some people do design their games all by themselves from beginning to end, but this is rare. Even after you sell a game to a company, they're going to review it and change it. That precious idea that you had may be altered significantly.

EF: Would you say it's wrong for a company like Activision to elevate their individual designers to superstar status?

PS: No, not at all. The worst part of the American business world is an overconcern with short term profits and a lack of concern for the employees of the company. It's smart for a company to reward the people that are doing the job for them. In entertainment fields like movies, sports or video games, it's natural for certain people to be in the spotlight. The public demands it.

EF: But you feel that a group effort is actually what usually takes place? PS: Right. The myth is that some guy goes and locks himself up in a room for a week or so and comes out with a game and he's a millionaire. Sometimes that *does* happen. But I think you'll notice more and more that it'll say on the game, "Game idea by Joe Blow and programmed by John Doe."

EF: Maybe soon we'll see credits on the back of



the cartridges like the credits on movies and records. PS: Absolutely. I think we'll be seeing that more and more. I can see user groups becoming very important. EF: What's a user group? PS: A user group is a group of peo-

ple in a given area that have the same equipment. It can be an Atari user group, an Apple user group, or whatever. Groups like this give a graphic designer like myself the chance to team up with programmers.

EF: How do you and a programmer get

together on a game?

PS: First you've got to have a general idea of what the game should be, even before you call in a programmer. Is it an action game, an adventure game, or an educational game? A working title is helpful. Let's say it's a game called Giraffe Chase. You want an animal as the lead character and you want it to be playable for children from three to 12. The next step is to sit down and figure out some kind of game play. Maybe you want the giraffe to run back and forth to pick up letters and construct words. Then you sit down with the programmer and he'll say, "Okay, great, but you've got to make the giraffe in only three colors." Or four colors, which is more common. So you pull out four pens and construct a giraffe on graph paper. Each block might represent two bits. The programmer might then say, "Hey, in order for me to program this, keep the giraffe within an eight bit width." You will have certain limitations and by maintaining them, you can make the programmer's job much easier. EF: What other limitations are there? **PS:** Location on the screen is critical. A television screen is 252 bits across. Now let's say you want to move your giraffe smoothly from the far left to the far right. You can do that dot by dot, but that would take up a tremendous amount of memory. A better way is to do that in 30 jumps of eight bits each. This moves your giraffe just as smoothly and uses less memory. It's kind of like taking elephant steps across the screen instead of baby steps. EF: Is color ever a problem? PS: Yes, there is the phenomenon of "artifacting." This is where you have colors that wash over other colors. If you put a blue and a red right next to one another, there is a vibration that changes the colors and even moves objects slightly on the screen, depending on the TV set used. I know one programmer in Illinois who runs all his programs through a crappy TV, because the general public doesn't have expensive Sony Trinitrons like he has in his lab. When you run a program on a ten-year-old

set, it looks completely different. The same thing is done in many recording studios. After they finish taping a song, they'll play it through a three-inch speaker because a lot of the audience, especially the top-40 crowd, is walking around with transistor radios.

EF: Is it frustrating to work with strict color and graphic limitations? PS: Yes, but at the same time it's invigorating. Being an artist, sometimes if you limit your palette it makes designing more interesting and challenging. EF: Do you have fights with the programmers? Do you ever say, "Look, I want five colors!"? PS: Actually, I should fight more. I

PS: Actually, I should light more. I think I'm too flexible.

EF: Who has the final say, the programmer or the graphic designer? PS: The consumer! Actually, a lot of people have the final say. The businessman might say the whole idea stinks. The researcher might say it's already been done. But between a designer and a programmer, the programmer really makes the final decision about what can and cannot be done. That's logical—he's the guy working with

those zeroes and ones. A race car driver can say, "Hey, I want to go a thousand miles an hour." But the engineer is gonna say, "Wait a second, we can't do that."

EF: Still, programmers seem to be pushing themselves pretty well. When the Atari VCS came out six years ago, it was made for ping-pong games. But Continued on page 93

Little-known

about well-known

EXPRESSIONS PEOPLE USE WHEN THEY LOSE A GAME

Life is a tough deal
 Death be not proud
 Oh, I took abuse
 Stinking Mutants
 Bummer
 That rots

 (alternate: Rot City)
 Harsh toke

 Wasted, blew me away
 Thus endeth the game

GAME GRAPHICS

Raise your hand if you think you know how many kinds of screens there are.

Fifty points if you were aware that your favorite characters fall into just two styles of graphics. Viewed at close range, the first type looks like a fuzzy row of colored dots, just like on the TV in the living room. The images on the second type are outlines of pictures that look like someone has played connect-the-dots with rulers and lines of bright light. These games are sharper and brighter.

Fantastic! Now you are ready to

know that the colored dots type is called a **RASTER** graphic (or Rasterscan). Using the same method television uses to make an image, games using this type are the most common because they are the easiest and least expensive to produce.

The screens with outlines of light are called **VECTOR** graphics (or Vector-beam or X-Y monitor, these graphics were first introduced in **SPACE WARS**. It took some time before the video people could make vector images in color. Excerpted from the new book, Defending the Galaxy: The Complete Handbook of Videogaming edited by Michael Rubin, \$4.95. Copyright 1982 by Michael Rubin. Available at bookstores, or Triad Publishing Company, 1110 NW 8th Ave, Gainesville, FL 32601. Add \$1 for shipping.

THE TRAK-DALL TEST

Trak-Balls can get sticky and slow from heavy usage. Before inserting a token, you can save money and frustration by briefly administering a TBT (Trak-Ball Test). First, place your palm on the ball and spin it, using a quick, short movement. It should glide for a few revolutions. Watch carefully for sticking or slowness. Then gently place your hand back onto the ball and make a slow circular motion as if you were dialing a phone with your palm. Get in touch with the feeling of motion. Is there resistance? Is it even? If so, you have completed a good TBT.

THE RAINBOW EFFECT

The rainbow effect appears when you eliminate a column of Invaders in **SPACE INVADERS** by shooting the bottom **INVADER** *last*. This isn't super simple. A preferred style by pros is to shoot the column from the top down—every time you successfully do this, a color

ELECTRONIC FUN-COMPUTERS &

YOU" The character vou control on a video screen can be many things. Sometimes it is a space ship (ship), or a car (car), or some sort of being (kangaroo, Pac-Man, humanoid, thing). You do not, however, refer to the object in the game as "the ship" or "the car." One never says, "It got destroyed." Losing is a very personal thing. You actually are the character on the screen (or at least are very possessive of it). "I was killed;" "It got me;" or sometimes, "It smashed my frog,' are common attitudes toward a loss. Even spectators understand and

sympathize when "you" perish. Video games are like life. When "you" win, you win. When "you" lose, you lose. And it's not how you play the game—it's whether "you" win or "you" lose.

burst appears from the bottom of the screen and grows and spreads as it heads upward. You also get a big point bonus. If you take out the column at the far left *last*, you get an even larger bonus of points. This is the real secret to a super high **SPACE INVADERS** score.

10 WAYS TO SAY "BOARD"

sheet
wave
attack wave
screen
phase
level
round
stack
slab
slate

THE WORST ENEMIES HALL OF FAME

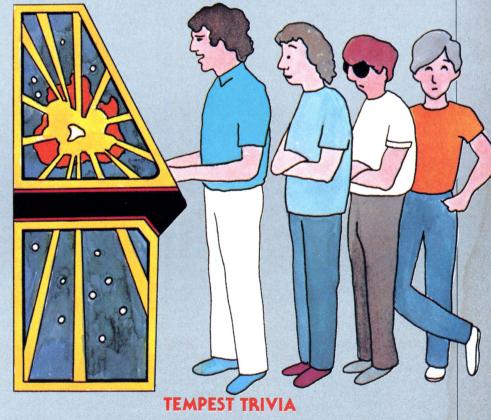
DOMDS in STAR CASTLE Three LIGHT CYCLES in TRON SPIDERS in CENTIPEDE PULSARS in TEMPEST DAITERS in DEFENDER SMART DOMDS in MISSILE COMMAND The Last Single INVADER in SPACE INVADERS CRUISE MISSILES in ZAXXON



FIVE FIRSTS

Firsts: The first Video Game with vector graphics was **SPACE WARS**. The first Game with color vector graphics was **SPACE FURY**. The first Game with a Trak-Ball was **NFL FOOT-DALL**. The first Game with Hyperspace was **SPACE WARS**.

When the game was designed, the cities in **MISSILE COMMAND** were intended to represent six cities on the California coast: Eureka, San Francisco, San Luis Obispo, Santa Barbara, Los Angeles, and San Diego.



Programmers of **TEMPEST** made a mistake that they were once reluctant to admit. Some Gamers discovered that if they scored 630,000 points (the record is almost 999,000), the machine would give them 40 free games. Wow! Much to

arcade owners' dismay, they couldn't figure out what had happened. Atari was told and they admitted that the mistake was in the program. Some games have been fixed, but there are still some special **TEMPESTS** out there. Just waiting.

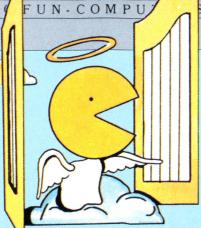
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IS THERE LIFE BEYOND THE 243rd KEY?

The Split Screen

The programmers of PAC-MAN don't want you to play forever. They have created a strong deterrent by placing a barrier far into the game.

When the hot Gamer reaches the 243rd Key, something strange happens: the screen splits down the middle into two sections. The left side of the screen is normal; Pac-Man can move through half the maze as usual. The right side, however, is filled with "garbage"-computer numbers and colored blocks-instead of it's usual maze walls, dots, and



energizers. The walls are there, but they have become invisible, and they are in different positions! It's like playing with your eyes closed. You have to maneuver through the garbage without being killed. Most don't make it.

THE ZOWIE EFFECT

The Secret STARGATE Bonus

When playing **STARGATE**, kill all the Landers immediately-all, that is, but one. Keep an eye on this last Lander and let him capture one of your Humanoids. As he ascends to the top of the screen, shoot him and let the Humanoid fall. Got that so far? Here is the tricky part. You have to catch the Humanoid just as his feet touch the ground. Don't let him impact and don't catch him too

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soon; you have to be just right. If you get it right, the screen will black out for a second and then re-appear with a burst of colors and other decorations commemorating your success. Then you get the Zowie Bonus: 2,000 points (it flashes on the screen). Congratulations! After some practice, flying down and catching your Humanoid will be no trouble at all.

THE UNKNOWN FROGGER FACT

Gamers can usually cross the FROG-GER road easily in the early stages. The strategy is little more than dodging cars and trucks. It was recently discovered that if the cute frog hops ON the 13th truck (in the last lane) to cross the screen-and every 21st thereafter-you can safely sit on the truck's trailer as it leaves the screen and reappears on the right for two cycles. Keep your eye on the Frog and don't let it be carried off for the third cycle. When you hop off (onto the median) the Frog will be transported to the far left pad at the top of the screen and your score will be bonused 10,000 points. Although Sega/Gremlin is unaware of this, gamers have been spreading the news by word of mouth since April, 1982. Oh, by the way, we made this whole thing up. But wouldn't it be nice . . .

& GAMES

Finally one Gamer did and discovered that life did exist on the other side of the wall.

The 244th Key is actually not another Key pattern. This board returns you to the Cherry pattern, except there are no cherries in the right-hand corner and the ghosts do not turn blue. Tough deal. The machine heralds your emergence to the "other side" by displaying two broken keys, one in each of the lower corners. Two additional split screens occur in PAC-MAN-the 366th Key and the third somewhere in the 460s.

If you were wondering, MS. PAC-MAN has a split screen too. The 137th board. If you clear that board, the machine turns off.



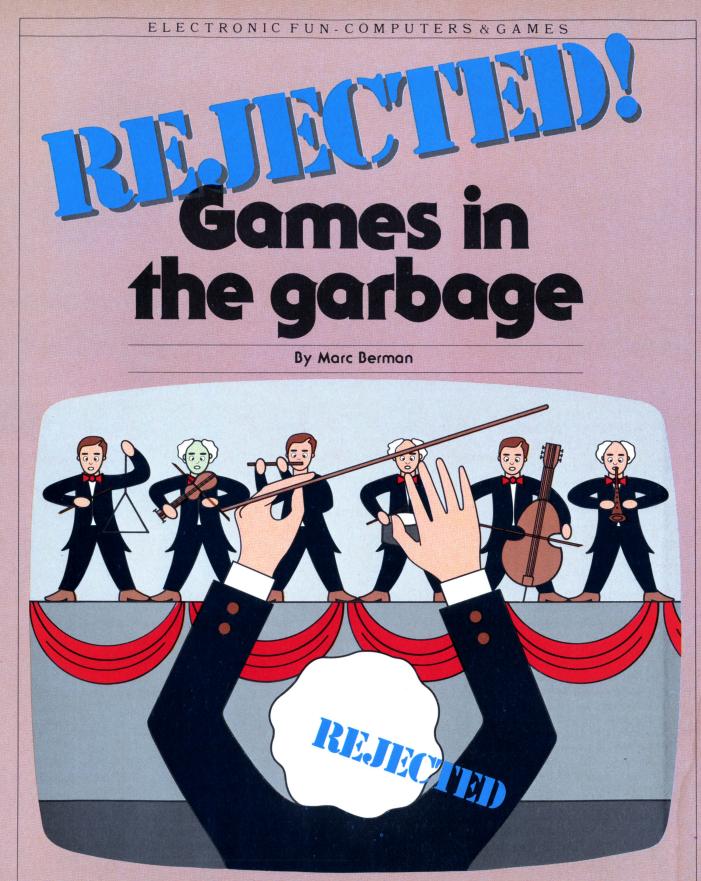
Any Gamer will tell you that there is no Grasshopper in CENTIPEDE. There are Spiders and Mushrooms and Fleas and Scorpions and Centipedes.

But once there was a foe you could eliminate during advanced play-a Grasshopper-that would have brought you exceptional points. Soon, after the game's release, however, the Grasshopper was removed. Yet its ghost lingers on in the depths of **CENTIPEDE'S** micro-chip. Get to know your local arcade attendant and ask him to show you the machine's test-mode run. There live the last video Grasshoppers.



DONKEY KONG

BUST



For every light on Broadway, there is a broken heart. Similarly, for every alien in Silicon Valley, there is an alien out of work. That is, for every game that makes it, many more are scrapped. Puke-Man for example. And Mad Conductor and Scoring and Surfing and . . .

Vina Wallace

In the church many are called, few are chosen. In video games many are sold, more are dumped. For every hit like *Pitfall!* or *Donkey Kong*, countless game ideas have been bandied around conference rooms and finally discarded. Many ideas have merit but for reasons, anticipated or unexpected, companies would rather not risk their release.

In the near miss department, for instance, are such games as *Ecology*, briefly considered by Data Age. The action revolved around a good samaritan who ran around picking up beer cans and candy wrappers as cars whizzed by depositing more debris along the road. One reason *Ecology* never made it was that design-wise, it looked too much like *Freeway*.

Surf's Down

Sirius Software demonstrated that they could be both ahead of their time and behind the times with *Patton*, a World War II tank battle game that required more memory than current computers could offer. Brock explains, "It had tanks blasting each other off the playing field and a scrolling background that was too complicated."

Game companies see ideas pour in from would-be designers like barrels from a gorilla. "A lot of them have good play value but bad execution," says Jack Woodman, vice president of marketing for Telesys. "For example, a surfing game we received. The object was to catch a wave and ride it in. Your joystick allowed you to go forward on your board where the ride became more hazardous. There were sharks and birds that threatened you. Unfortunately, the graphics weren't done very well."

On the other hand, even if it has swell graphics, a game might bite the dust if the game play isn't exciting enough. Western Technologies considered a game called *Parking Lot* in which a fleet of cars jockeyed for position in a crowded lot. Every once in a while a tow truck would come along and tow cars away. Points were deducted for crashing into other cars.

"The problem with *Parking Lot* was that we couldn't come up with wonderful enough game play—I mean, what are you going to do when you hit another car? Get out and exchange license numbers?" asks Gary Niles, general manager of Western Technologies.

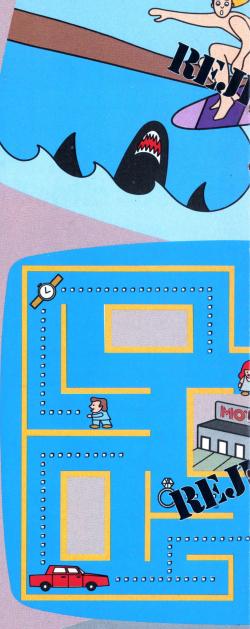
Most designers agree that very few games they come up with are ever chucked completely. Sometimes the theme survives or one element of game play will be used somewhere else. Niles notes, "When a game is shelved, at any moment a new twist can get it back on track. It may just be missing a little piece of magic."

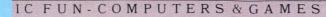
One game that was missing more than a little magic was submitted to Broderbund Software, Inc. It reduced Biblical morality to multiple choice. Says Gary Carlston, vice president of product development, "It was a program to judge people's morals and give them a score. It said there were basically four choices you could make in any life situation ranging from good to bad." Too bad Eve didn't offer Adam an Apple II—we might still be in the garden of Eden.

Sex and Violence

Games are sometimes scrapped because they don't fit the corporate image or are of questionable taste. In the sex and violence department, a game called Scoring was submitted to Telesys. Scoring showed a man and woman on the screen with little strings of pearls, diamond rings and money scattered around. The man had to accumulate enough riches, then get the girl to go to a hotel with him. After they got to the hotel, a light went out in one of the windows. The object was to score as many times as possible in a limited amount of time.

In a tasteless though biological vein (or artery or abcess) was a cancer game, submitted to Broderbund. The program featured white blood cells chasing cancer cells and at the end of the game you died. "We didn't like the idea of making







PET



cancer a game," Carlston adds soberly.

Another impious treatment of a serious theme was *City Destroyer*, in which the player controlled the world's nuclear arsenal and attempted to destroy identifiable cities like New York, Paris and Oshkosh. Prudence and social responsibility prevailed and Broderbund turned down the game.

The public was also spared a medieval massacre game which Carlston admits, "was technically very well done." Two knights on screen hacked away at each other with axes, spilling buckets of blood and leaving severed limbs littered around your living room. (A totally unsubstantiated rumor has a major game company working on an accessory for this game called IntelliStitch.)

Perhaps the sweetest game never to make it was *The Ice Cream Game*, developed by Data Age. The graphics showed two ice cream cones on a hot summer day. The object was to lick all the drips before they hit the ground.

Mad Conductor

Music hath charms to soothe the savage beast but not, apparently, the savage gamer. The Mad Conductor had undeniable charm but never made it to cartridge form. The Data Age program had a wildhaired composer conducting an orchestra. One by one the musicians would turn yellow, then green and begin to play sour notes. The conductor would have to run up and whack the musicians on the head to restore harmony. If the player completed a song without a sour note, he would go on to the next level of difficulty.

Data Age product development manager J. Ray Dettling remarks that "Certain game designs are awaiting machines with more memory or simply better timing." Other ideas with potential are discarded because of limited or regional appeal. Both Sierra On-Line and Data Age knocked around the idea of a game based on the daily experiences of a New York cab driver. So far no one's picked it up.

Another driving game was *Cruising* which was inspired by the primitive rituals performed by California youths. The screen showed a tangle of freeways with little alcoves where characters and objects of interest waited. The object was for kids in cars to pick up interesting people and things for a party and to avoid cops. Every once in awhile the player would pick up a party-pooper and be disqualified.

"One problem with *Cruising*," admits Dettling, "is that we don't want to put a negative social value on cops."

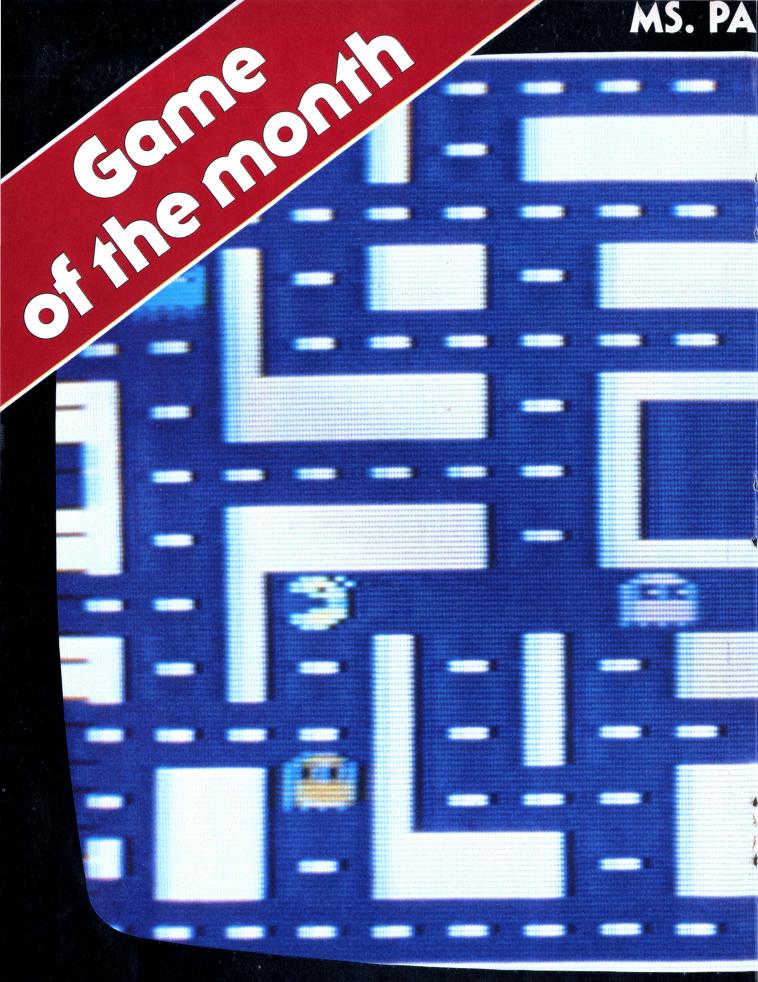
Exerpong

Occasionally even giants like Atari have ideas that don't quite make the grade. Take, for example, *Exerpong*, a pressure sensitive accessory for Atari's *Pong*. Players were meant to run along eight-foot long strips which were laid on the floor. In this way, they controlled the movement of the *Pong* paddles with their feet and got a good workout to boot. Who said video games were a sedentary activity?

Accidental rip-offs are common occurrences in game designing. If a game turns out too much like an existing game, it is scrapped. Imagic designer Dennis Koble recalls, "We had a game idea for a jungle theme, then *Pitfall!* came out from Activision. That happens more often than you think." Imagic also considered a fortune game until Odyssey introduced *The Great Wall Street Fortune Hunt.*

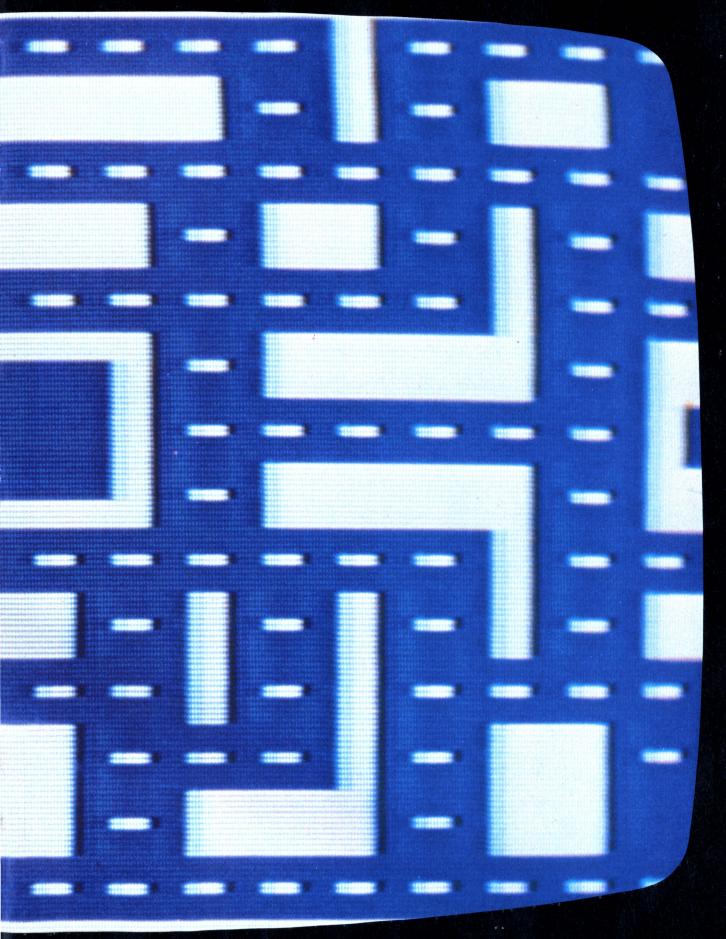
"Cross-clones" is what Ernie Brock calls the hybrid ideas submitted to him. Amateur designers will borrow characters from *Pac-Man*, *Space Invaders*, *Donkey Kong* or *Asteroids* and come up with off-the-wall concepts such as an advancing army of Pac-Men battling one lone gorilla with a laser.

Legal problems and technicalities have kept scores of Pac-Man look-alikes off the market. One can only be grateful to the farsighted and wise barristers who kept *Puke-Man* (a submission to Broderbund) off American TV screens.



The distaff dot-eater arrives in all her glory. The object of the game is . . . ne

C-MAN



ver mind. We'll assume you haven't been dead for the last year and a half.

Push-button LUVICE Welcome to the Electronic Cottage

By Frank Moldstad

GO JOGGING

0

VISIT GRANDMA

FRY EGGS

WAL

GO TO MOVIES

You can fry your own eggs if you want to. You can balance your checkbook, too. You can even get in your car, go Christmas shopping and listen to a disgusting piped-in version of "Jingle Bells" on an endless tape loop while you fight legions of people with even less Christmas spirit than yours—if you want to.

BRUSH TEETH

DO HOMEWORK

ROACHES

PLAY

Face it, you do a lot of things you hate. Perhaps half your life is devoted to mundane tasks. Well, pretty soon a computer may be able to do these tasks for you. What will it be like living with a meddling machine? A lot like living with your mother, only you can talk back.

TAKE SHOWER

CUT GRASS

DOG

For the sake of argument, you're not a masochist. You like yourself and think that you could find better ways to occupy yourself than frying eggs. Like eating them.

There are several ways out of this quandary: 1) Slaves, but they're illegal; 2) Servants, but they always pry into your affairs and want raises; or 3) Computerization—it's reliable, fun and it also impresses your friends.

For the sake of brevity, let's deal only with the last alternative. A computerized home frees up your time for more important pursuits, like writing your memoirs or sleeping. Welcome to the good life.

Wonderful, you say, but this is science fiction. Wrong. In fact, an "electronic cottage" called Xanadu has already been built as a public showcase in Orlando, Florida, near Disneyworld and Epcot Center. While its architect, Roy Mason, notes Xanadu's \$500,000 cost is outside the realm of most home buyers, he says he has designed a scaled-down version that can be put on a lot for \$60,000 to \$80,000. The electronics can be added later.

House Brain

Xanadu is a foam dome, shaped like a mushroom. Inside, it's got an array of computerized functions connected to a central control center. Mason explains, "The big focus is the evolution of the home. Things like intelligent, energyconscious appliances have been used in homes already, but no one has ever connected them into a nerve center. In the house of the past, the family gathered around the hearth. Now, the family will be brought back together around the control center."

In addition to the house brain (divided into left and right brain spheres for routine and intuitive functions), the structure features a bio-feedback sensorium, a robutler, a game and learning center, and an array of personal computers, audio/video devices and security systems. It even has a non-static electronic art gallery with colorful, high-resolution pictures that are computer-generated.

The Jetsons

Among the benefits of Xanadu, one thing sounds particularly appealing: "You can wake up and have your whole day programmed," says Mason. This suggests the following scenario:

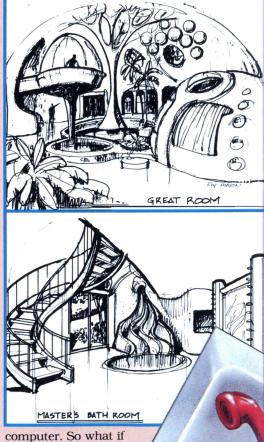
Say you lived in an electronic cottage. Imagine waking up to a soothing computerized voice. "It's 50 degrees and 7:30 a.m. You have a 9 a.m. tennis lesson. Your wife left a message: Be sure to take your vitamins. Your son left a message..." "Shut up," you scream, pushing the snooze button on your bedside remote keyboard. Unlike servants, computers don't take offense.

Fifteen minutes later, the computer voice coos, "For breakfast I show adequate supplies of eggs, steak, sausage, pancake mix, potatoes, coffee, tea, orange juice, tomato juice, grapefruit juice..." You cut it off abruptly, punching in the codes for fried eggs, orange juice and coffee. "That will take five minutes," purts the computer.

While breakfast is being readied via a network of servomechanisms connecting the refrigerator to the microwave oven, you access the tape file for some morning music. "Hmmm, the Dead Boys, code T40, sounds good." Still in bed, you access the shower controls, punching in commands for a hot shower with the shower massage on quick pulse.

This is nice, you think, but there ought to be an automatic function to get you out of bed and into the shower. Your hero is George Jetson. In your impressionable years, the Jetsons warped your ideals. George Jetson's mornings were easy. His bed folded up and popped him out like a toaster. He had a machine that brushed his teeth for him.

But George Jetson had to commute to work, you remember smugly. You don't. Because of computers, you can base your architecture firm at home, and design your schematics on the

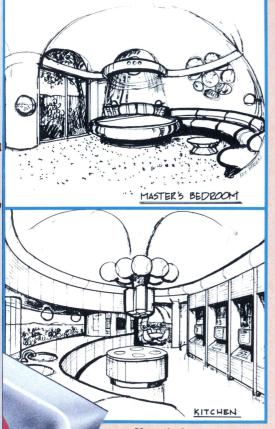


computer. So what if business has been slow because all you want to design is futuristic monoliths. You're ahead of your time. So you get the occasional design commission and dabble in the commodities market to pay the bills.

After your shower, you get dressed unaided. The electronically operated shades are all closed. Via the bedside terminal, you open them all the way throughout the

house. Blinded, you close them halfway again. If only there were some way to regulate sunlight.

In the kitchen, you call up the commodities market data base network for opening and closing prices. Then you insert a diskette and update the information on the commodities you're following. On a separate diskette, you chart them.



You choke on your coffee. "What, my pork belly futures are down a dollar a pound in two days! Gotta sell them." Grabbing your phone, which has a 10number memory redial, you instantly connect with your stock broker's answering machine. He's unavailable till noon. At least the excitement woke you up. But wait! A quick computer analysis shows you should hang on to those pork bellies because they're going to skyrocket. A few cold eggs later, it's time to think about getting on with the day. After all, just because you have a computer doesn't mean you can be lazy. You start by accessing your schedule, which you've cleverly entered under a file marked "2Day." Oh yes, the tennis lesson. Guess you'll miss that, considering it's nine now.

Moving the cursor down, there's more excitement: Today is your wife's birthday. You forgot to buy her a present. It's not that you didn't think about it. In fact, you even have an idea, some fancy French perfume. But you didn't buy it. Fortunately, a chic local department store has its catalog accessible to home computers. Time to do some tele-shopping.

You call the catalog index to your screen through the telephone modem and find perfumes. A few buttons later, you've ordered some Yves St. Laurent Opium giftwrapped for delivery in two hours.

Biofeedback

Next case. Your son left a message. Punching up the message file, you find: Dad, I'll be home early from school because there's a teachers' meeting, and I need money to go halfsies with Bob on a game cartridge. Please! Love, Ralph. "Stupid kid," you mutter. "All he ever does is play games on the computer."

All this excitement and coffee has worked you up. You feel a tension headache coming on. Perhaps a little biofeedback is in order. You walk into your library and flip on the terminal. From the comfort of your easy chair, you use the audio and video signals on the terminal like an oscillator to determine your fingertip skin temperature.

"I show 94.2 degrees," says the computer. Just as you thought, you're tense. "Rising to 94.8 degrees ... remaining steady ... 95 degrees ..." And so on. The higher the skin temperature, the lower your tension. The lower your tension, the lower you slip into your chair. Yawn.

"Dad, I'm home! Dad!" You awaken with a start, which surely causes a drop in skin temperature.

MAR 1 4 PAID

It's Ralph, and he's found you. "Dad, Bob

and I already bought the game so can you give me \$15 so I can pay him back?''

He's caught you in a weakened state. You feel powerless to resist. An argument with two salivating 13-year-old game fanatics seems less than appealing at this point. "In my wallet on the kitchen terminal," you say, and they're off.

It's noon. Working at home, you have to pace yourself. You're not doing a very good job. Maybe you should fire yourself and replace yourself with a computer. That scares you for a moment. Then you realize someone would have to program the computer, and it might as well be you. With that in mind, you settle in for some serious work on a schematic for a logic-based house you're determined someone will want.

That's how your life might be in the electronic cottage. Of course, maybe you're not as idiosyncratic as we made you out to be. You might jump out of bed and make that tennis lesson. It's all the same to a computer.

Will computers take over your home and ruin your life? Poppycock. If life in a computermonitored environment fuels your paranoia of Big Brother, remember: You can always turn the computer off. Chances are you'll reconsider, the first time you need a pencil sharpener.

ELECTRONIC FUN-COMPUTERS

MES



Ms. Pac-Man: 📽 She's not a miss

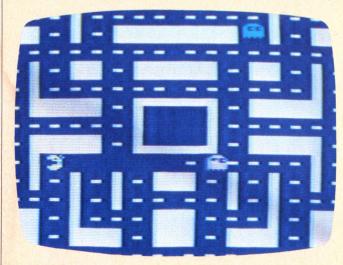
MS. PAC-MAN 1111 Atari/Atari VCS

By Dan Gutman

A year ago, Atari released *Pac-Man*, perhaps the bestselling and least-loved cart in video game history. It was clear that this game made it on name alone. The graphics were fuzzy, the joystick control near impossible and there was very little resemblance to the arcade game the world had fallen in love with. When the advance copy of *Ms. Pac-Man* arrived at our offices, we braced ourselves for another dud.

Ms. Pac-Man is a *tremendous* improvement over the VCS *Pac-Man*. The field is a brilliant blue. The ghosts still flicker, but they're sharp and clear, even when they turn blue. No need to put your color set on black and white *this* time. Ms. Pac-Man herself, adorned with a dimple and bow, is a bright yellow. Her mouth chomps—it doesn't just open and close like a broken wrench as Pac-Man's did. Your joystick control is much better, though not perfect.

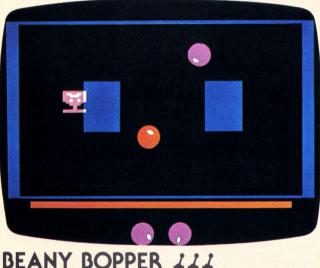
The game begins with the jaunty *Ms. Pac-Man* theme. Your tunnels are on the side this time, as in the arcade game. Real fruit—cherries, raspberries and oranges—bounce around the maze for you to eat instead of the boring stationary brick that Pac-Man had to lunch on. After you get past the second board, you are shocked to find the maze has changed—those long runways are blocked by walls. After the fourth board it changes again. *Ms. Pac-Man* is harder than *Pac-Man*,



but the scoring has been scaled up so any selfrespecting gamer should reach 20,000. After you lose your last Ms. Pac-Man, the ghosts put on a show.

Ms. Pac-Man is everything *Pac-Man* should have been. It's a good-looking game as well as a good-playing game. The only question is: Why couldn't Atari have done this the first time?

Save the tunnel dots for the end. You can scarf up all four of them while the ghosts are running around confused.



BEANY BOPPER 111 Fox Games/Atari VCS

By Ed Hulse

Beany Bopper is a fast-paced shoot-em-up which, despite it's juvenile name, offers a lot of enjoyment for those of you who feel you can master any video game in a matter of minutes. It won't be so easy with this one, we warn you.

You, as player, wield "The Bopper", and your mission is the destruction of Beanies everywhere, along with numerous other menaces referred to vaguely in the instructions as "Bouncing Orange Eyes" and "a crazy variety of Falling Objects."

The playfield is studded with rectangular obstructions and —in Play Option 1—the Beanies. But in Play Option 2 (the more difficult), the Beanies can move freely through these. Beanies—described as "devious and deadly"—succumb to a two-pronged attack. First you stun them by pressing your joystick: then you move in for the kill.

To really rack up the points, though, you've got to be on the lookout for those Falling Objects—bombs, airplanes and parachutists plummet from the top of the playfield and, by capturing them, you add anywhere from 100 to 490 points to your score. The higher the score, by the way, the more difficult the game becomes. The real danger

lies in being zapped by a Beany. You

have four Boppers to begin each game and your reserve is clearly shown at the top of the screen. Contact with a moving Beany means instant disintegration and, should you lose all your Boppers, the end of the game. But bag four Beanies in a row without sustaining any losses, and you'll win a bonus Bopper for your trouble.

Beany Bopper requires more than a little time, patience and dexterity to master; it will provide you with more than a fair share of exasperating moments and lots of good fun in the bargain.

Stay in the middle of the playfield. The Beanies always drift over that way and you can avoid the Falling Objects if you're of a mind to.

MOUSETRAP 111 Coleco/ColecoVision



By Mark Brownstein

There's this new game for the Atari VCS. Yeoh? Yeah, it's a maze game. You've got to maneuver your character through this maze, gobbling up little white squares. Poc-Man. Right? Wrong. Anyway, you eat these squares. Power pellets? Cheese. And you've got to keep from being eaten by the . . . Ghosts? No. Cats. You only have three mice, and if a cat eats you, you're down to two. Cats? Mice? What game is this? Mousetrap. You've got cats and mice and cheese and dogs. Dogs? You can turn your mouse into a dog and eat the cats. If you're not careful, the cats will eat your mouse.

Let me guess. There are power pills in the corners, and when you eat one, the mouse turns into a dog, right? Not exactly. There are bones *near* the corners, and the mouse isn't a dog right away. You have to make it into a dog. How? By pressing your trigger. You press it for about a half second, and it'll become a dog for a few seconds. Any longer and the maze changes. Into what? It's still a maze, but some of the corners open up and some of the passages close. This can help block the cats from getting your mouse. **Sounds easy**. The simplest levels are. But there's enough variation to make this game a challenge. You can set it for fast or slow cats and for smart and dumb cats. **Dumb cats?** Yeah. Instead of going after the mouse, they just seem to go back and forth in a corridor, not knowing how to go in for the kill until your mouse is right on top of them.

So it's another maze game. So what?

No big deal, except that there's more humor to *Mousetrap* than there is in *Pac-Man*. When the cat gets the mouse or the dog gets the cat there's a somewhat feline sounding tone. And when the mouse gets a bone there's a minibark. And at the beginning of the game there's a short song. Another thing, being able to control the maze allows you some control over the pursuit of the cats. This often comes in handy.

Who would want another maze game? I don't really know. But if you've waited till now to decide on



whether to buy that *Pac-Man* cartridge, you might prefer *Mousetrap* because of the somewhat better graphics and control over the maze. Also, it seems to be a little easier for young children to master. At a little more money than the *Pac-Man*, you should give it some serious thought.



So. It's a maze game. You run through a maze, eating cheese, eating bones, and avoiding cats or eating them. The more mazes you complete the more points you get. Right. You said this was new? Yeah. Why?

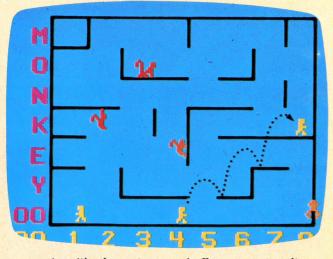
Try to trap two cats in the inside cage. You then only have to worry about one cat instead of three. When you've got four bones, use one up getting cats or maneuvering through them, then go after another bone.





By Frank Lovece

In Primal Scream Therapy, which swept California a few years ago, the patient spent a lot of time floating in a warm swimming pool trying to remember what it was like in the womb. *Monkeyshines* (a sort of Primate Screen Therapy) is not only cheaper than primal



screaming, it's also quieter, and offers a way to relive those carefree days of childhood—a swing on the swings, a slide on the slide—but mainly a game of tag, because that, basically, is what *Monkeyshines* is.

Monkeyshines has five variations and virtually countless sub-variations, owing to the Odyssey² console's capability of letting you alter the playfield using the keyboard. In a landscape of straight-faced war games and whimsical cutesy games, a video translation of childhood tag could be beautiful.

The game has a fundamental problem, though. It's not in the four chittering monkeys your two onscreen



men must chase around monkey bars to tag. It's not in the way the tagged monkeys turn red to inflict tagbacks that freeze your men. It's not in the challenging increase in the monkey's red time as your score gets higher. The problem is that whether one or two people play at once, two onscreen men have to be controlled—by separate controllers. And since you need both hands on a single controller (one on the joystick to move your man, another on the fire button to make him jump and tag monkeys), this is very difficult and confusing when you play by yourself. For younger kids, especially, the problem is magnified.

You could, I suppose, stick one man in the corner and hope the red monkeys don't touch him—but then, why have him on the screen? You could also switch rapidly back and forth from one controller to the other. Or you could simply grow two more arms.

If this possibly unique game characteristic doesn't bother you or if your play with someone else, this is a game that's catchy in its simplicity. As raw as the Odyssey graphics are, the monkeys have a charm and a naturalness of movement not unlike the real things. The variations, though rooted in the pure and simple premise of tag, offer mazes too complex to figure out easily.

In Tailspin, the maze scrolls upward step-by-step as you play. In Shuteye, the maze is invisible most of the time. (Odyssey loves that. Almost every Odyssey² game seems to have this Claude Rains complex.) Monkey Chess, my favorite of the bunch, has you adding and deleting monkey bars, and is the one version in which strategy can outdo chance. You can, for example, temporarily cage tagged monkeys so that they can't tag your man back. The final variation, Bananas, is a jumble of the three previous variations. But it's more fun to watch and admire the computer play itself than it is for you to play.

Since the monkeys bounce away from your man when he tags them, avoid the side walls – the monkeys can rebound and tag your man back.

REALSPORTS FOOTBALL 1111 Atari/Atari VCS

By Raymond Dimetrosky

For the last year or so, Atari owners have been forced to listen to a smiling George Plimpton explaining why the Intellivision sports games are just like the real thing while Atari games are nothing short of bad. When you saw the pathetic Atari *Football* next to the Intellivision *N.F.L. Football*, you had to admit that George had a point.

RealSports Football looks like a masterpiece compared to Atari's old football game. You are now able to hike, make a short pass, make a long pass, kick, even



call a blitz. But the biggest difference doesn't lie in what you can do, but in how the game looks. The field scrolls horizontally which means that as you run, the picture changes to reveal the portion of the field that you are crossing. The feeling is like watching a football game on TV, with the cameras following the action.

Instead of the six players found in the old version, there are now 10 players and you are given quite a lot of control over them. You are in complete control of the player who has the ball. If the quarterback passes the ball, you first control the quarterback, and then, once the pass is completed, you control the receiver.

The graphics are pretty good for the Atari system, although at times it becomes difficult to follow the ball. At least the players look like people instead of blobs and the scoreboard contains all of the appropriate information. The sound effects are especially enjoyable. When a play ends, it is blown dead by the referee's whistle. After a touchdown or a field goal, the crowd lets out a cheer.

There are some limitations to *RealSports Football*. There are no penalties and no fumbles in the game. (NFL scouts, are you listening? These must be some incredibly talented players.) There are also no time outs or running out of bounds to stop the clock. It takes considerable practice to throw a completed pass. In fact, the key to *RealSports Football* is practice. You'll have to do a lot of it to get good enough to enjoy the game. You cannot just sit down and play. It is, however, a nice change to have a game that you will not master in two weeks.

The obvious question is how *RealSports Football* compares to Intellivision's *N.F.L. Football*. Overall, the Intellivision game is still superior in graphics and game play. But the Atari game has a few advantages. For one thing, there is a one player verison, something sorely missing from the Intellivision game.

Before you tackle the computer, practice playing the twoplayer version yourself. The other team will just stand there so you can rehearse passing, running etc.



V~

By Dan Gutman

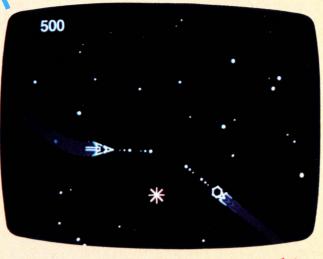
With the exception of *Pac-Man*, Atari has always delivered on its arcade-to-home translations. *Space Invaders* was right on the mark. *Missile Command* terrific. The graphics and game play, if not identical to the originals, have always retained the feeling, intensity and personality of their parent games. The same can be said of *Galaxian* for the 5200 system. Home *Galaxian* is just like arcade *Galaxian*, except it's not fun.

When I say *Galaxian* isn't fun, I mean it in a special way—we have to evaluate it in terms of video games today. Sure, *Pong* was a great game in 1972, but if somebody dared to put out *Pong* today, we'd laugh. Similarly, *Galaxian* was a great game in 1981. "Wow," everybody said, "Space Invaders that really fly!" But video games have come so far in the last two years. Nowadays, rows of marching aliens dropping bombs don't make it. I want those aliens to come at me, Kamikaze-style, and *really* give me a hard time.

This is the inevitable problem with arcade licenses today—presumably because of money, they have to wait a reasonable amount of time before an arcade game can be released for the home formats. But in a rapidly changing business like video games, startling innovations may take place in that time. When that old hit arcade game finally makes it to your TV screen, it pales in comparison to the *latest* hit arcade games.

Had a *Galaxian* cartridge come out two years ago, this would be a four-joystick review. And if you haven't seen some of the incredible new games the arcade and home manufacturers are making, *Galaxian* may still thrill you. But if you played *Galaxian* a while back and now you've moved on to *Zaxxon* and *Subroc*, you should search for other playfields to conquer.





SPACE WARS 1111 Vectrex/Vectrex Arcade System By William Michael Brown

The original shoot-'em-up is back—and if you're interested in a home game that plays *better* than any arcade version of it, snap up *Space Wars* right away.

Classic isn't quite the word for *Space Wars*. This game is a throwback to video-gaming's Paleolithic Age (circa spring 1970). Back then, a good home computer was strictly sci-fi, and the only people with RAM to spare for games were computer hackers—bearded, usually scruffy, young programmers who sat up all night tending some research lab's IBM behemoth and, once in awhile, "borrowed" the machine's keyboard and a few hundred K of memory to play their homebrew version of *Star Fight*, *Space Trek*, or whatever they chose to call it.

The hackers' games were good, clean, sweaty-palmed fun, and they always sported the same scenario: Two spaceships fought a duel against a backdrop of empty space and the cold, pitiless stars. Armed with *Star*-*Trek*-style torpedoes, they jetted around a sun with a gravity field that deflected the ships' shots, changed their flight paths and, if they got too close, drew them down to a fiery end. It was a simple one-on-one dogfight.

Later arcade versions used exactly the same scenario, but tried to improve it with more complex graphics, sound effects and "realistic" gimmicks. They were better-looking than the hackers' games, but they had one major drawback: Almost all were one-player versions.

Vectrex's designers have taken the best of both the arcade and hackers' versions, and all but made a completely new game out of it. Most importantly, they've eliminated the arcade games' built-in boredom by bringing back the two-player option. *Space Wars*' vector graphics, blue-and-red color overlay and sound effects are the equal of anything you've ever seen in an arcade and the cartridge's seven difficulty levels recap all of the more interesting arcade gimmicks.

They've also added some new wrinkles that provide more realism than the arcade versions, such as damage control: Your ship can take hits in up to two non-critical



portions of its anatomy without blowing up. But your opponent has that same ability. Your fuel and torpedoes are also limited. Run out of both, and you're a sitting duck. But *sans* fuel you can still turn and fire, and without torpedoes you can dodge your opponent's salvos—or why not just ram him dead center? After all, that suicidal maneuver will net you each a point, and if you're only one point away from the 10 needed to win, why not?

All of this lends a tactical interest to the game that neither the hackers' nor the arcade versions ever had. Vectrex has provided a one-player option so you can play the chip if you want. But it's as a two-player game that *Space Wars* really shines. Head to head with another human being, *Space Wars* isn't a primitive shoot-'em-up at all—it's a blindingly fast battle of wits that demands the concentration of a chess master and the aggressiveness of a Kamikaze pilot.

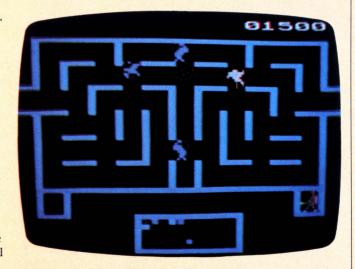
Learn to use the wraparound fire feature; if it looks like your opponent is out of range, turn fast and zap him through the side of the screen.

WIZARD OF WOR 1111

CBS Games/Atari VCS

By Walter Salm

One of the first things you notice about this game is that it doesn't seem to work. Then you go back and read the directions *carefully*, and find that you're supposed to plug the joystick into the *right* side instead of the left when you're playing the one-player version. The reason: to make the game more closely resemble the action in the arcade version. I suppose that makes some sense, but they really ought to put a statement like that in big, bold red letters for people like me who



don't like to read directions.

Once you've passed that hurdle, the gameplay gets really interesting. You start with three "Worriors," which are used one at a time. They come out of the box shooting and you have to kill all six Burwors—rather pathetic, almost likable blue creatures that once in a while will shoot back. But your Worrior can dodge the bullets most of the time.

After the Burwors come the yellow Garwors, which are typically invisible but materialize every so often. When they're invisible, you can follow their progress on the radar scanner. The same is true of the purple Thorwors, although they're a little harder to get than the Garwors.

Next is the Worluk, and if you get him before he escapes from the prison maze, you face the Wizard himself. In the two-player version, you not only have to contend with all those meanies, but your opponent's Worriors, too. You can shoot each other, which is a nasty but legal way to boost your score.

The mazes change from one set of meanies to another and the game gets faster and progressively more exciting. A rarity among new VCS games these days, *Wizard* has high interest, excitement and a lot of staying power.

When you finish a set, the game starts all over again, but at a higher difficulty level with the creatures moving much faster. It's possible to rack up some pretty impressive scores after a while and somehow, the game loses none of its excitement even after hours of play. It's a real winner!

Look before you bring a new Worrior out of the box; there might be a creature in the way which would be an instant loss for you. Wait a few seconds and choose the best moment to come out fighting.

ESCAPE FROM THE MINDMASTER 1111 Starpath/Atari VCS

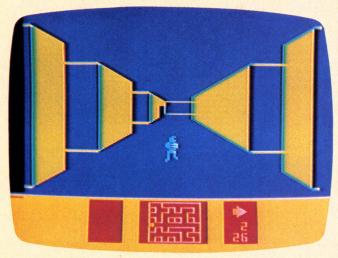


By Mark Brownstein

Mattel attempted to corner the market on threedimensional graphics with *Star Strike*, but they will have to go further to match this game in which you are spirited away by night and awaken inside one of the Mindmaster's mazes.

Your view is from inside the maze (looking toward the wall directly in front of you). From your position, you can see any doorways or blind corners in your immediate line of sight. At the bottom of the screen is a radar image of the entire maze, you are facing. In order to get through the door that leads to an escape stairway, the Mindmaster has created some mind games which you have to complete. Basically, on all levels there are walls with pegs and other walls with matching slots. When you fill all the slots with matching pegs, you are free to go to the next level.

Complicating matters is the Mindmaster, who roams



the corridors waiting to run you over, and throw you back to the beginnning of the maze. In order to get to inner (and outer) corridors, you must pass through doorways, which you can see by looking at them and get to by maneuvering so that they are alongside you.

You can't see the doorways, the Mindmaster, or the pegs on your radar screen, so you'll have to memorize their positions. You can carry one peg at a time and you can only get rid of that peg by placing it in its corresponding slot.

From the second maze on, there is a moving force field. If you hit it, it throws you back to the beginning. If you are hit by the Mindmaster or run into a force field enough times, the game is over.

Mindmaster is Starpath's introduction of a new type of Supercharger game—multi-load. This transforms

what is already a challenging game into three challenging games. After you complete the first two mazes, you then reload the Supercharger for the next two, and if you survive those, you are ready for the final two challenges.

It takes practice to get used to the strange control of the joystick—moving it left or right changes the direction of motion, a push forward moves you forward, a pull backward, pulls you back. You always face forward no matter which way you move. The limited 3-D graphics are excellent. There is something for just about everyone in this game, if you don't let the mental exercise get in the way.

To get through a force field, wait until the way is open and hold your joystick down. Don't hop across—run.

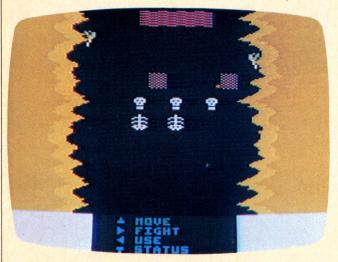
DRAGON STOMPER 1111

Starpath/Atari VCS

By Michael Blanchet

I dare you to show me one middle-aged mom or pop who can whomp a 10-year-old in a game of *Asteroids*. But I also dare you to show me a kid who know's how much gold it takes to bribe a bridge guard, or who knows whether to fight a slime or slip him a potion. These are just two of the many situations one encounters in Starpath's *Dragon Stomper*.

To say *Dragon Stomper* is designed for adults only would be unfair. It would be more accurate to say that



it's not for the casual player. There are no power pills to chomp or space ships to blast; it's a thinking man's game, and a darn good one at that.

At the outset of your journey, you (the player) find yourself in the Enchanted Countryside, a land covered with trees, swamps and lakes. During this first stage of play, you must gather gold, weapons and other artifacts you need to bargain with the guard at the bridge.

En route, you will be confronted by a vast array of creatures. When face to face with a ghoul, golem, maniac or spider (to name a few), you must make a decision whether to run, fight or use one of the objects in your possession.

After bartering with the guard at the bridge, you move to the Oppressed Village, you equip yourself with what you will need to battle the dragon. The Oppressed Village is a tranquil place—there are no battles to be fought here. Instead you must enter the Magic Shop, the Trade Shop and the Hospital to sell or trade your belongings in exchange for powers, medicines, elixirs and the services of the idle warriors-about-town. Once you feel you have the items necessary to take on the dragon, you move toward the entrance to the Dragon's Cave. As far as graphics are concerned, *Dragon Stomper* is not exactly a dazzling treat to the eye. But this is to be expected. Remember a hefty bit of computer memory is needed to catalog the mind boggling number of play variables. But *Dragon Stomper* challenges the mind instead of the wrist, a quality which makes the game closer to a total entertainment experience than almost any other game currently on the market.

PLATTERMANIA 111 Epyx/Atari 400/800

By Steven Slon

Wow! Running away to the circus. That's what the instructions say this game is about. Baby stuff! *Plattermania* may put you off at first. But, the saving grace of this cartridge is that it isn't *really* about running away to join the circus. Rather, it's a horizontal action game of skill that gets so fast so soon, it can provide a tasty challenge.

When you start it up, *Plattermania* is instantly pleasing to the eye. Your player, a yellow clown who we'll call Bozo, waits behind a long table. On the table are a row of 12 evenly spaced upright sticks or stands. When you hit the red button on your paddle controller, Bozo reaches up and puts a spinning platter on the stand touching his hat. After a while, the platter starts to wobble—a pretty good 3-D effect—then it wobbles more and finally it falls. You can spin the platter to keep it from falling by positioning Bozo behind it and hitting the red button. Hit the button twice and the platter will fly off the stick and crash. (The exception is that when it's really wobbling badly, you *have* to give it two or even three spins.)

Keeping the platters spinning for 8 seconds is all there is to it. There are no different screens. This clown act is the entire circus!

Sounds simple? It *is* in the beginning. In the first level, all you have to do is put your platters up. They take about eight seconds to wobble and 25 seconds to fall. But, by round eight, things are really cooking. To keep the platters spinning, you've got to whip Bozo's butt up and down that line. I found this doable after 20 minutes of getting the hand of it. But, by the last round, the platters start to wobble in one second and fall in five. By the time I could get to the end of the row, the first platter had nearly smashed!

The problem is that *Plattermania* can get old on you, since it only gets faster, never different. How much time do you want to spend spinning platters?

At higher levels, don't even look at the platters. Just keep whipping down the row hitting the trigger button as you pass each stick.

VIDEO VERMIN 1111

United Microware/Commodore VIC-20

By Walter Salm

Games for the VIC-20 seem to get better each week. This one is a takeoff of the arcade game *Centipede*, but it is a lot more exciting.

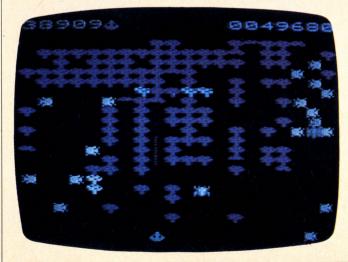
The cartridge has some of the best game graphics I've seen for the VIC and the joystick reponse is fast and accurate. You're faced with various kinds of "vermin" including snails, spiders, butterflies, beetles, fleas, ants and mushrooms. They all move except the mushrooms which bloom in profusion

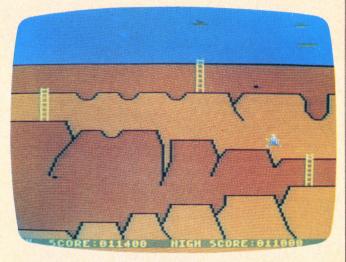
whenever you annihilate one of the beasties. The hero of this one-player game is your shooter, which in the instructions is called a "defending gardener." It can move in all four directions on the screen—although it can only move about one-third of the way up from the bottom. Still, this is more than enough maneuverability to take care of most of the invading pests and keep the garden blooming.

In some ways, the game is easier than the arcade version, since holding the fire button down lets you rapid-fire in machine gun fashion. This helps in the high-scoring department.

One quirk to watch out for since it can be confusing at first: Unlike most video games, the number of lives remaining in the top-of-the-screen display *includes* the life you're currently using. If the display shows one life, you're on your last one, so be careful. You earn an extra life for each 10,000 points, so it's possible to keep the game going for quite a while.

Keep at least one vertical column empty so you have a clear field of fire when an occasional snail meanders across the screen. Snails are worth 2,000 points apiece.





CANYON CLIMBER 111 Data Soft/Atari 400/800

By Steven Slon

Canyon Climber is a multi-screen game of timing that has clearly been inspired by *Donkey Kong*. It's not quite as demanding as *DK*, but the concept is appealingly bizarre.

Picture this: You're a mad anarchist running amok in the wild and woolly West. Armed with a backpack full of dynamite, it is your improbable mission to blow up a bridge and then to try to escape. The bridge has four levels on which you plant your dynamite. Ladders lead up and down. Killer goats patrol the levels and you have to jump over them ... or die. (You jump by pressing the fire button on the joystick.)

At the top of the canyon, on the right side, there is a plunger. If you reach it alive, kaboom! No more goats, no more bridge, nothing except Indians.

In screen two, you're in Injun territory. You are running up a ramp toward a ladder, but there is an Indian here who keeps busy by shooting arrows at you. You can jump the arrows or protect yourself by grabbing a shield that's just above your head.

Screen three is perhaps the most bizarre of all and worth playing just to see it. You are scrambling across a mesa, jumping over crevices. Just so you'll have less than a sporting chance, there are some angry birds flying overhead, dropping . . . you guessed it. Except this ain't ordinary bird doo, 'cause it'll kill ya!

At the top of the mesa, a bugle sound will herald your success. But just so you don't get a swelled head, a goat from screen number one will roar out and butt you right off and you'll find yourself once again back at the bottom of the bridge in screen one. I'd rate this game *short-term addictive*.

On screen two, press the control button as if to jump arrows even when you're holding a shield. That way, if your shield evaporates as an arrow is about to skewer you, you'll fly over it.



CROSS FORCE 1111

Spectravision/Atari VCS

By Paul Backer

The question of the year seems to be whether anyone can develop a game for the Atari VCS that is original, has good graphics and is fun to play. Is that asking too much? I don't think so. But up until now, the only new game that came close to fulfilling these criteria was *Demon Attack* by Imagic. Now there's *Cross Force*, a challenger to *Demon Attack*'s supremacy. In my opinion, it has a good chance of becoming the new leader.

Cross Force is a space game in which you have to trap your enemy in a laser which you shoot between two cannons at the top and bottom of the screen. The cannons can either be parallel to each other or

diagonally placed.

The aliens start at the right side where they are deposited, one or two at a time, by a large mother ship.

They fire at either your top or bottom cannon. Some of the aliens are equipped with the suicide missiles. There can be up to eight small aliens or four large aliens on the screen at the same time. You receive a free ship every 10,000 points but the game is quite difficult and it will take a few hours of intensive game play before any problem of what to do with extra ships ever comes up.

There are two interesting quirks in the game: When you get killed, you can quickly press the reset lever, then the fire button on your joystick and, instead of starting over in the center, you'll start in the position you were in when you got killed. Also, after you die, you can sit back and watch a real-time view of what the

Paul Backer is a high school student who takes computer classes at Columbia University to feed his lion-sized ego. upper levels look like because the game plays those by itself.

Spectavision has included the trusty "pause" feature. All you have to do is flip the color/black & white switch and the action will be frozen while you attend to other matters.

Cross Force is the best buy for your money, in my opinion. Not only will it challenge even the best players, it will also help the Atari VCS survive the challenge of Intellivision and ColecoVision.

If you want to get through the first wave effortlessly, move four inches from the right edge of the screen and fire three shots in rapid succession when you see the mother ship. This will destroy the first aliens right away.

RIVER RAID 111

Activision/Atari VCS

By Michael Blanchet

In *Barnstorming*, Activision put you in the cockpit of a Sopwith Camel. In *Chopper Command*, gamers treaded in the old biplane for a heavily armed Huey Cobra. Then came *Sky Jinks*, and players wove around pylons in a P-41 Mustang. Now the Activision love affair with the airplane continues in *River Raid*, a searchand-destroy contest where the player, as jet pilot, flies upstream in search of enemy bridges and fuel depots.

In *River Raid* the playfield unfolds as the jet soars upstream. The sharp, colorful graphics, which have become the unofficial trademark of the entire Activision library, change with almost every frame. The novelty of the everchanging scenery (48 different frames in all) and the resulting feeling that you never really know what lies ahead are the game's greatest assets. In a typical 20,000 point game, you never cover the same turf twice. For holding player interest, this is one of the best games going.

In comparison to the graphics, which are amazingly diverse and detailed by VCS standards, the game play is simple and straightforward. Your B-1 assault jet, piloted with the joystick controller, is viewed from an overhead perspective. All land area, (the green sections of the playfield), is off limits to your jet. The only usable airspace lies over the river, which is heavily fortified and patrolled by a variety of enemy war machines including battleships, choppers, and jets. They don't shoot at you, but they represent a hazard all the same.

You fly at a fixed altitude, it's no good trying to fly above a battleship or below a chopper. Evasive action *is* possible, however, by moving the joystick north (for a quick burst of speed) or south (to slow the jet to a crawl).



There is also a fuel factor. When reserves dip below a quarter-tank, an audible alarm sounds, signalling you to gas up by cruising over one of the fuel depots scattered along the river. Your supply is credited in propor-

tion to the length of time your jet is in contact with the dump.

Instead of blurting out whimsical tunes and senseless audio effects, the soundtrack of *River Raid* is realistic and beneficial in certain situations. You can monitor your fuel supply, for example, with your ears instead of your eyes. If fuel reserves dip below a quarter-tank, a klaxon sounds. When you make contact with a fuel depot, a ringing like the sound of a gas station air pump is heard; a louder clanging signifies the tank is full.

Even though *River Raid* is similar to many video games in theme—delay your inevitable destruction for as long as possible—the everchanging scenery and the need for a constant shifting of strategy to address the situation at hand gives the game an appeal not found in the ordinary one-scenario video games.

When you need to refuel, wait until the nose of your plane is lined up with the letter "F" on the fuel tank then push fire. This will get you fuel AND points.

CHINA SYNDROME 111

Spectravision/Atari VCS

By Frank Lovece

The object in this game is to keep a nuclear reactor from overreacting. Like that vintage arcade game *Starhawk*, *China Syndrome* has you controlling a gunsightlike "robot arm" that must be centered on flying objects so you can remove them from the screen with a press of the fire button. In this case, the objects are nuclear particles bouncing around, *Pong*-like, within three chambers of a reactor. Your robot arm must pluck these particles before they hit walls and split into more and more particles, explode, and eventually trigger a meltdown. Lose five sets of particles (three in the more difficult level) and the game ends with a long meltdown sequence.

To illustrate the three chambers within the nuclear reactor, *China Syndrome* employs a screen effect I haven't seen before: two horizontal bands of wavy TV lines which divide the playing field into thirds. These are not as effective as they might be. I had to turn the TV set off and on a few times before I realized the bands were *supposed* to be there. After getting used to them, however, I found them fairly effective as a means of separating the chambers.

The nuclear particles are not portrayed effectively in the graphics—they should go back to the cloud chamber. Without the instructions, an elaborate scenario about an earthquake-damaged reactor on Spectra Island, this game cculd just as well have been called *Escape from the Ice-Cube Master* or *Mexican Jumping-Bean Attack*. This simplicity isn't necessarily bad. In fact, a VCScompatible game is often at its best when it uses play concepts undiluted by fancy—sometimes gratuitous—graphic effects. Games of marbles, for example, are very abstract, simple and enduring though they involve little more than spheres colliding.

Another fault is with the VCS itself. The standard control makes the robot arm maneuver so jerkily it's almost impossible to control with any finesse. The best way of coping with this is simply to rest the arm in the path of oncoming particles and snatch them as they go by.

Upon losing, you're treated to a red curtain slowly descending on humanity, or at least on the reactor. It's a long sequence by video game standards—about 20 seconds—but it does bring the game's point home.



Don't clear out one section of the reactor at the expense of other sections. You can always go back to pick up a loose nuclear particle or two but it's hard to remove a bunch of them at once.

ESCAPE FROM RUNGISTAN 111

SIRIUS/Apple II

By Bruce Smith

Believe it or not, there are worse positions you could find yourself in than a hostage in Iran. For instance, you could be a wayward tourist who wakes up one morning in a barren jail cell somewhere in the obscure nation of Rungistan, where the Bill of Rights isn't exactly standard operating procedure. Forget the phone call to the embassy or asking to see a lawyer—there's a snaggle-toothed guard cackling down the corridor and indications that an execution is imminent; and it just might be yours. It's time to take a powder for the border.

That's easier said than done in *Escape from Rungistan*, a fiendishly maddening—and therefore

utterly compelling—adventure game that goes far, far beyond the American Express commercial where the nice couple has lost there travelers checks and the hotel clerk doesn't speak English. From the look of the terrain—displayed in graphics that are very advanced by game standards—it's a wonder anyone would visit Rungistan in the first place.

This is no game for chickens. Attempts to avoid danger—at the gallows, in the bear cave, on the swaying bridge—always result in quick, gruesome death. The best thing to do in each of these instances is to ask yourself: "What would John Wayne do?" Also, a total recall of *Mission: Impossible* reruns is money in the bank.

Some action-game dexterity is required when you ski down the mountain through a snowstorm (and it's a *great* snowstorm), but basically this is a game that calls for cunning and migraine-level concentration. Coming up with phrases the computer will accept can be a frustrating exercise in word association; if nothing else, your vocabulary will improve. The hardest single element is in the second part of the game, when you must figure out how to open the safe in the saloon: you can't finish the game unless you do. Along the way, there's lots of equipment for your escape lying around—look for it and take it, because you'll need it later.

In the unlikely event that you forget about the hordes of prison guards who've been sent out to track you down, the game's built-in time element is unrelenting once you've scaled the walls. Your decisions must be swift and sure—there's no hanging around trying to make up your mind what to do next. Suffice it to say that this is a game that at most times—but not

Bruce Smith is a writer and editor in Greenwich, Connecticut—which is about as far from Rungistan as you can get. always—demands quick, clear thinking rather than blind reflex.

There are false clues and blind alleys to thwart your run for the border. Play as if your life depended on it—and be thankful that it doesn't.

In the action sequences, don't hold the keys down-just tap them. Always keep in mind which direction you're heading. Be on the alert for equipment.

SLIME 11

Synapse/Atari 800

By Paul Backer

Slime is a victim of an alarming trend sacrificing game play in order to achieve originality. It can be honestly said that *Slime* is an original game. Unfortunately that doesn't mean that *Slime* is a good game. It isn't. It doesn't live up to the standards of a good home video game, let alone a computer game. The primary object of *Slime* is to build a barrier of wedgeshaped (triangular) blocks to block the way of slime which is falling from the sky. And, of course, the slime is being dropped by killer aliens. The secondary objective is to deflect the slime into one of two giant vacuum tubes that are located at the edges of the screen. This gives you bonus points and also keeps the ocean from rising which is good.

You are given a large ship which fires the triangular blocks that deflect the slime. The blocks can be destroyed by lightning storms, rampaging UFOs and fireballs. The maximum number of wedges available to the player is 20. If all 20 blocks are on the screen, you must position your target exactly on top of a block you want to eliminate—then press the red button and the wedge will disappear. This manuever will give you an extra wedge which you can place anywhere above the

ocean level. There are also UFOs that carry giant plugs with which they try to plug up your vacuum tubes. If they succeed, you have to wait for a chopper to come and take the plug out.

The game has some nice features like very sharp graphics and, more importantly, total control over game variations. What this means is that *you* get to select the number of points you must earn before you are awarded a bonus ship, how high the ocean level is to begin with and the number of ships you want to use.

Regrettably, the game's deficiencies outweigh the good points by far. The sound effects are probably the worst ever heard on any computer game. The controls are what the company (Synapse) refers to as 'sensitive' but in any other dictionary they would be defined as unwieldy and terribly jumpy. The ship from which you fire moves absolutely randomly, thus making you a



pawn to the whims of fortune, regardless of how well you play. And last but not least, the fireballs destroy everything in their path. Thus all that wonderful control comes to nothing.

Instead of blocking the slime as it falls from the sky, position your target right below the dropping slime. As soon as the slime touches the mark, fire a block.

SHAMUSIII

Synapse Software/Atari 400/800

By Walter Salm

Shamus is a lovable little guy of a kind that you just don't expect to see in computer game characters. He's tiny, wears a broad-brimmed hat and has a purposeful, plodding walk—kind of a computerized Columbo without the cigar. He chases a variety of evil baddies through a series of mazes and secret rooms in his attempt to seek and destroy the shadow.

Shamus starts his journey in a tunnel which leads to one of 32 different rooms in each of four different levels (a total of 144 rooms). The baddies are whirling drones, robo-droids and snapjumpers, and if one of them touches or shoots Shamus, he loses a life. Fortunately. Shamus starts with five lives and can earn extras by touching a genie's bottle, which appears fairly often. You also lose lives when Shamus plods into a wall.

You can earn extra points by having Shamus touch a question mark when you find one, and you can collect four different-colored keys. Each key fits a like-colored

keyhole, unlocking a door into the next level. Shamus is armed with ion-shivs which you throw by using the trigger button on the joystick: the unthinking baddies obligingly keep grouping and getting in the way of your shivs, so with a little practice, you can get through all of them to get to your genie bottles, questions marks, keys and keyholes.

The object of the game is to reach the evil Shadow's lair and destroy him . . . easier said than done. To remind you that he's around, the Shadow appears every so often, but Shamus can't kill him—he can just stun him long enough to run to the next room.

The game's graphics are superb and there are so many variations and twists and turns in the plot and storyline, that it doesn't look as if it could ever get boring. But, don't expect to master it the first time you load it into your machine. Practice is the catchword. Lots of practice.

Watch for playing weaknesses of your various opponents. They're not all that hard to beat. Also, keep track of the different rooms in each level. It's easy to get lost and end up going in big circles.

CRYPT OF THE UNDEAD 111

Epyx/Atari 800

By Phil Gerson

Ever wonder what goes on in cemeteries after dark? Unless you're really superstitious or easily frightened, you can find out by playing *Crypt of the Undead*. In *Crypt of the Undead*, werewolves, vampires and other creatures of the night freely roam the grounds and you are the poor lost soul who must escape from the cemetery before dawn . . . or remain there forever.

As the game begins, it's dusk and you are standing in the middle of a cemetery. Locked gates and high walls cut off all means of escape. Your only hope of getting out is keys which are scattered around the grounds. These open the doors to such structures as the crematorium, mausoleum and private tombs where additional exit clues (and more ghouls) await.

Feel free to wander as you please, collecting treasures and food. Pay close attention to your route, as you'll frequently find the need to retrace your steps as you roam through the night. The graphics, which scroll both vertically and horizontally, are wonderfully eerie as you stroll past rows of graves, buildings, and a lake. You aren't safe though—the monsters are roaming too and they attack the unwary without warning.

Crypt of the Undead is a delightful diversion and, for the adventure minded, something of a relief from the space-blaster and maze-running games so popular of late. The graphics inside and outside the buildings are equally spectacular and the game itself shows lots of imagination and thought.

The major drawback is that the game is exactly the same each time it's played. The layout of the cemetery, the insides of buildings, the location of keys and secret clues are identical from session to session. The fun and challenge diminish in direct proportion to the number of times you play. It is probable that after winning three or four times, you'll have little interest in an early return visit. The first two times you find your way out are just great, but then what? This is the type of game you should expect to trade with friends.

By the way, death needn't mark the end of the game. When a player is killed by a monster, the computer tells you to press the "start" button. But you can take another crack at the attacker if you hit "option' instead. The coded clues in the buildings can be mysteries in themselves. Walk with caution, notice everything and above all, think carefully.

There are ways to improve your chances of staying alive long enough to find your way out before the cock crows. You can evade most attacking creatures by crossing a fence.

JOYSTICK WORKOUT TORSTICK WORKOUT

A joystick in the hand should be worth more than just two points in the game, right? But, often the joystick that comes with your hardware leaves something to be desired—namely flexibility, precision and firing response time. That's why, when you choose a replacement joystick, it's got to perform. But with all the companies making joysticks and claiming that their joystick will improve your score by thousands of points and won't cause combat fatigue, what are you supposed to believe? You could just say "forget it" and play with the inadequate one you've got, or you could read the EF survey of joysticks

Our prevailing concern was how well it racked up the points. Four check marks signify our highest rating.

POINTMASTER VV (Discwasher) VV

At under \$20, the PointMaster is certainly one of the best new joysticks currently available, although it doesn't have two fire buttons. The one fire button it does sport is located at the top of the handle and the stick itself is flexible and precise, which means better scores.

The PointMaster has a five-inchhigh, straight joystick similar to arcade models. The firing button is larger than those found on many other controllers and is set in such a way that you can hold your thumb at a more natural angle—no more contortions worthy of a yoga master.

The unit functions best when held in your hand as opposed to being place on a table or the floor. The lack of suction cups makes it prone to slippage. However, Discwasher will soon offer an improved model—the PointMaster Pro—which adds suction-cupped feet and a repeat firing mode.

POINTMASTER (\$16.95) Discwasher 1407 North Providence Road PO Box 6020 Columbia, MO 65205

STARPLEX VV (Starplex) V

Another pushbutton model, the Starplex succeeds where the Fingertip Controller (next page) fails.

It is handsomely designed, with a low-profile, slanting control board. The left and right controls are located on the left-hand side while the up and fire buttons are on the right. The down button is in the center and doubles as a hyperspace control in games like **Defender.** Unlike most other units, Starplex can be used in either normal (single shot) or Astroblast (repeat fire) mode.

The buttons are very responsive, although we preferred the arcadestyle look and feel of the less responsive Fingertip Controller.

This is a terrific second purchase, and it isn't unreasonable to own more than one controller. It may not be the best device for games such as PAC-MAN, but for something on the order of PHOENIX, you can't beat it.

> STARPLEX (\$29.95) Starplex Electronics East 23301 Liberty Lake, WA 99019 (509) 924-3654

QUICK SHOT //// (Spectravision) //

The Spectravision joystick is a real improvement over the standard Atari joystick. It has an airplanestyle pistol grip which added a whopping 2,000 points to the overall score.

The Quick Shot is not without its drawbacks. Using the top-mounted fire button causes the thumb to tire very quickly. It's no problem however, to simply switch to the base fire button.

Another plus of the Quick Shot is the dual fire buttons—one at the top of the handle, the other at the base. Unlike other models, both buttons are on-line at the same time so you can use both in the same game. The purist may look at this as a cheater's short cut to higher scores, but beginners (and cheaters) will love it. The joystick movement is, unfortunately, a bit stiff but, on the whole, the Quick Shot is a wor-

QUICK SHOT JOYSTICK (\$14.95) Spectravision 39 W. 37th St. New York, NY 10018 (212) 869-7911

thwhile investment.



SLIK STIK/ / / / STARFIGHTER / / / (Suncom)

Many good things still come in small packages and the Slik Stik and Staffighter are two of them. Smaller than most standard joysticks, the units are, nevertheless, accurate and responsive.

Both units are small enough to be held comfortably in one hand and both have a small joystick set into the middle of a square black base on which the firing buttons are located.

The lower-priced Slik Stik has a red ball on the handle which improves handling and scores. Although small, it gives the player something to hold on to for an arcade feel. It comes with a 90-day warranty. The higher priced Starfighter features a bullet-shaped stick and comes with a limited, two-year factory warranty.

Ironically, the cheaper Slik Stik seems to perform better than the Starfighter perhaps due to the presence of the stick shift-type design which makes it easier to grab.

We strongly recommend the Slik Stik for those who are looking for a change form the standard-size joysticks.

> SLIK STIK/STARFIGHTER (\$9.95/\$16.95) Suncom 650E Anthony Trail Northbrook, IL 60062 (312) 291-9780

FINGERTIP // // CONTROLLER (KY Enterprises)

The Fingertip Controller is a plain black box with four white buttons and one red fire button. The position of the buttons corresponds to the direction you move in.

Because of the thickness of the control box, it is extremely difficult to hold and manipulate it at the same time. Placing it on a flat surface doesn't really help either—because it lacks suction cups, it moves around during play.

On the positive side, the buttons are of arcade quality and offer quick response. In addition, the unit is moderately priced. In fact, mechanically and electronically inclined players can buy the device in kit form for only \$14.95.

Unfortunately, the whole device has a rather thrown-together look about it, and there are no directions on the unit at all. Now, we're not asking for detailed instructions; just a little arrow with the word "up" or "down" over the buttons indicating the direction in which the rocket should go.

With the low price and two year parts and labor warranty, however, we recommend this unit as a second purchase.

FINGERTIP CONTROLLER (\$19.95) KY Enterprises 3039 E. 2nd St. Long Beach, CA 90803 (213) 433-5244

VIDEO VV COMMAND (Zircon)

Old video game manufacturers never die, they just adapt their joysticks to fit other machines. Only a video historian would really see any advantage in buying the Zircon Video Command hand-held controller. The unit was originally developed for use with the barelyalive Fairchild Channel F system.

While the controller didn't lower our score on **River Raid**, it didn't improve it either. The joystick is just slightly more sensitive and allowed for a bit more maneuverability than the Atari joystick. The sidemounted firing button allowed for a greater number of shots per second, but its position is awkward—you must use your index finger rather than your thumb.

If you like to fantasize about being at the controls of a B-17 bomber, the Fairchild unit will deprive you of this pleasure. Instead, it gives the impression that you're holding onto an empty plastic tube that's likely to break under the slightest pressure. The constant shifting of the triangle controller is more reminiscent of mixing chocolate milk than piloting an F-16.

VIDEO COMMAND (\$14.95) Zircon International Inc. 475 Vanell Way Campbell, CA 95008 (408) 866-8600

COMMAND

The consummate video game player should settle for nothing less than the consummate controller and Wico's Command Control is the consummate controller.

The unit even looks as if it belongs in an arcade. The red and black joystick has a four-inch high bat-style handle which affords the most comfortable and natural grip of all the models tested. But best of all, the Command Control will give you accurate movement and sensitivity. This increased ability to weave through oncoming flanks of helicopters and swoop down to guzzle additional fuel will translate into higher points.

There are two firing buttons one mounted on the top of the bat handle, the other on the base. A switch at the back of the joystick determines which button will be used. And, most importantly, the dual buttons react with arcade-like speed.

If you tire easily, you can mount the unit to a table and, using its five-foot-eight-inch cord, sit back and relax while you play.

This controller is also available with a red ball handle instead of a bat handle.

COMMAND CONTROL (\$29.95) Wico Consumer Division 6400 W. Grosse Point Road Niles, IL 60648 (312) 647-7500

GAME MATE II (Cynex)

Game Mate II costs about as much as the VCS itself and allows the player to play **Pac-Man** up to 20 feet away from the TV.

The unit is not entirely wire-free, however. There are four: one goes into the VCS power jack, one goes into a wall socket and two plug into the VCS joystick ports. There are also antennas growing out of each controller. These antennas could b rather dangerous in that, during the heat of competition, it's possible to inadvertently (or advertently, depending on how firmly you believe in good sportsmanship) poke out your opponent's eye.

The greatest drawback of the Game Mate is the joystick. Instead of designing a space age joystick worthy of the wireless technology, it merely repeats the errors of the much-maligned Atari joystick on an enlarged scale. In fact, we found the joysticks to be even less playable than Atari's. Because the unit is remote control, batteries are needed, and batteries require a battery housing which, in this case, is very large and unwieldy.

If you're really hellbent on playing games from 20 feet away), buy a \$7 Atari extension cord.

> GAME MATE II (\$99.95) Cynex Manufacturing Corp. 28 Sager Pl. Hillside, NJ 07205 (201) 399-3334

SUPER JOYSTICK (G.A.M.E.S.)

While more expensive, the Super Joystick offers just about the fewest advantages. In the first place, the Super Joystick is short. Although it has a one-inch, ball-type handle, it is less than two-and-a-half inches tall, so it is close to impossible to wrap your entire hand around it comfortably.

The firing button is smaller than the one on the standard Atari unit and most other joysticks, although it is very responsive.

The construction left something to be desired as well. Instead of being mounted to a rounded joint like the PointMaster, or placed in an accordion-style mount like the Atari, the Super Joystick is stuck right smack into the middle of the base unit. Result: Little or no play. When games start getting hot and heavy, you'll hit the shaft into the plastic surrounding it.

In addition, it is uncomfortably thick and difficult to hold on to during a game that lasts longer than, say, 10 minutes.

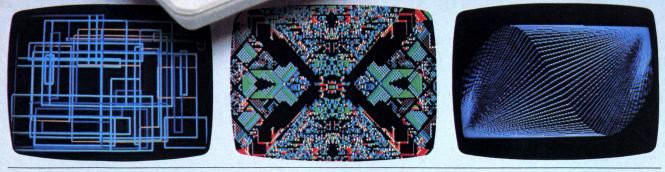
On the plus side, it does have a five-foot cord and a one-year warranty but, in our opinion, if you're going to pay this much money, you're better off with the Wico.

> SUPER JOYSTICK (\$29.95) G.A.M.E.S. 6626A Valjean Ave. Van Nuys, CA 91406 (213) 781-1300

COMPUTER WORKOUT

A P 800 Look what \$535 will get you

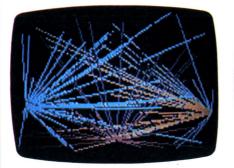
3 ATARISOO



By Walter Salm

Teacher, gamemaster, word processor, programming system—the Atari 800 is all of these and much more. If you're looking for a game-only machine, it may not be your cup of tea—in spite of the fact that it has four joystick ports ranged across the front of the console. First and foremost, it's a computer, one that also happens to be a whizbang at gameplay. But at \$535 (or more) a pop, you may want to think twice about getting it strictly for entertainment.

ELECTRONIC FUN-COMPUTERS & GAMES



The Atari 800 has so much power and versatility built in that I found myself re-asking the question: What is the definition of a home computer? Some writers I know use Atari's very potent word processor for all of their work, and it's easy to see why. But I'm getting ahead of myself.

As with all home computers, when you first take the wraps off the 800, you're tempted to see just how well it performs in the gameplay department. The 800 now comes packed with 48K of RAM plugged into its expansion slots. And if you like, you can even upgrade it to 64K of RAM with one of the new memory cartridges available from other, non-Atari suppliers, so there's precious little it can't do with games.

Besides the growing library of plug-in game cartridges made by Atari, a lot of other companies have gotten into the act with games on cartridges, diskettes and cassette tape. Some of these are Thorn EMI, EPYX, Program Design, Synapse, Sirius and English Software. Some



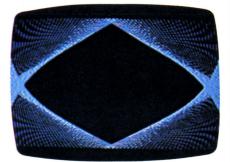


of the games have a vague family resemblance to some others you may have seen for game-only machines or in arcades, but the similarity ends there.

Because of the computer's enormous memory and graphics potential, it can recreate the best graphics and action of arcade games. It can also provide many different screens for changing the scenario quickly and effortlessly. Adventure-type games in particular come off very well with the 800, and can provide many hours of enjoyable play.

Strategy Games

Strategy games like *Eastern Front* from the Atari Program Exchange provide realistic war game simulation, and Thorn EMI's plugin cartridge *Submarine Commander* puts you in a World War II U-boat that's going after enemy ships in the Mediterranean. The latter game has three different screens and operates in real time so the submarine seems to react with agonizing slowness to various com-

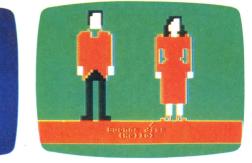


mands and joystick movements.

Want some fast-action or outer space shoot-em-ups? There's nothing faster or more difficult than English Software's *Airstrike* or PDI's (Program Design, Inc.) *Moonbase Io.* In addition to such potboilers as *Pac-Man* and *Missile* on cartridge, Atari offers thinking games like *SCRAM*, which is difficult to learn, but a highly educational, nuclear reactor power plant simulation.

The 800 has two cartridge ports under the hood—a left cartridge slot and a right one. Most of the time, you use the left side slot. A ROM cartridge BASIC interpreter comes with the machine, which lets you start writing your own programs right away. Without the cartridge, the computer will understand only machine language, something that you're not very likely to be familiar with unless you're a computer engineer.

Using a plug-in cartridge instead of having a programming language built in does several things. For starters, virtually no RAM space is



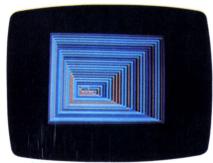
Strategy games, sophisticated graphics with an enormous range of color and hue, a vast library of educational and practical application software – with its built-in 48K RAM these are only a few of the functions your Atari 800 can perform. At the top left and right and on the opposite page are several examples of programs which will allow you to render spectacular graphics. Top center, a playfield from the game SCRAM, which simulates a nuclear reactor power plant. Above center, an example of the computer's ability to render 3-D graphics and create the feeling of depth. Above left, Music Composer. The Atari 800 offers a wide range of sounds and tones allowing you to compose your own music or add sound effects to your video games. If you've got a natural flair for languages (or, even if you don't), you can teach yourself to speak any number of foreign tongues with the Atari 800 as your personal computer/tutor. Among the lanugage programs available are French, Italian and Spanish (pictured above right). You can also learn to speak any number of foreign languages with the Atari 800 as your personal computer/tutor. At the speak any number of foreign languages with the Atari 800 as your personal computer french, Italian and Spanish (above right).

used up for a resident (built-in) programming language which leaves you with a lot more user memory available. Also, it means that you can buy other—often more efficient—languages, such as Microsoft BASIC, and plug those into the cartridge slot if you prefer. If you're more comfortable with Microsoft, then by all means buy this cartridge.

Both the 400 and 800 have a very useful safety feature. When you open the door to plug in a programming or game cartridge, a built-in safety interlock turns the computer off. This way, you can't accidentally plug or unplug a cartridge with the power turned on.

The computer's color capability is enormous and it's possible to make the system jump through hoops.

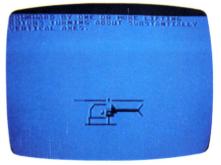
Games on disk or tape may be written in machine language or in Atari BASIC. If they're in machine language, you load and play them with the cartridge slots empty. If they're written in BASIC, then you





first, since the 800's keyboard contains some special keys, symbols and key locations that are somewhat nonstandard. In some cases, such as the *, +, 1 and = signs, the keys are located so they can be found quickly and easily. A "standard" position on most computer keyboards puts the * on the upper case of the figure 8, and ordinarily, the + also requires the shift key. Not so on the 800 keyboard, and once you get used to it, it can be a great convenience and time-saver.

But in other cases, the location of special keys can be a real annoyance. If you're a touch-typist, it's very easy to hit the reverse col-



Not only can you render abstract designs and forms (such as those above left), you can also create concrete pictures such as the American flag (if you're of a patriotic bent). Additionally, there are several books which outline simple programs—such as HELICOPTER (above right)—which you can keystroke in yourself. One of the best books is ATARI GAMES AND RECREATIONS.

Like all home computers, the 800 can take a number of peripherals, such as disk drives, cassette recorders and printers. The cassette and the disk units are designed to be "daisy-chained" from a single user port on the side of the console. This means that if you have a single 810 disk drive and one 410 cassette machine, you plug the disk drive into the 800 and plug the cassette into the disk drive. If you plan to connect a printer, you need the Atari interface module (\$200) and it, too, goes into the daisy chain hookup. By the way, you must use the Atari cassette recorder because it has a special connector and is turned on and off by the computer.

Each one of the peripherals has its own AC power cord and plug so they don't draw any power from the computer itself—a definite advantage when you look at the power limitations for add-ons with other computers. have to plug in the BASIC programming cartidge before loading.

Games on cassette typically take five to eight minutes to load (although it seems like forever). Diskette software, on the other hand, loads in seconds.

Atari BASIC

If you're the impatient type, then \$500 for a disk drive may be a very worthwhile investment. Besides, you quickly get very tired of the time and relative inconvenience involved with doing *anything* with the cassette recorder. It's great as an interim measure and you'll never regret buying it, since you'll need the machine for certain pieces of software that only come in cassette format. Additionally, cassette is a cheap and easy way to store programs and files—even if you have the disk drive.

Programming with Atari BASIC can be an unsettling experience at

or key (marked by the Atari trademark) instead of the righthand shift key and this can create mayhem with some more complicated programs.

As a safety measure, if more than one person is going to use the computer, make sure that each person has his or her own disks, because it's very easy to erase programs and files that someone else may have spent hours keystroking.

Although the Atari manuals provide a lot of important information on how the system works, they can be confusing. There are tables of error codes that tell you what these codes mean when you make a mistake and they flash on the screen—such as "ERROR 165". You look this up on the error codes list, which is conveniently located inside the front cover of the Reference Manual, and find that it's a "File name error." So you start again.

The computer and the manuals



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together are not user friendly and take some real work to understand. The reference manuals are just that—reference manuals. Fortunately, Atari also includes a book called *Atari BASIC* and this is a big help. It's well written and takes you by the hand through the special features of the Atari system's programming capabilities. It's in a workbook format and there are lots of explanations and exercises for you to try out. If you want some fun programs to learn from, there are also some excellent books from other publishers. One of the best of these is called *Atari Games and Recreations*. It's from Reston Publishing Co., Reston, VA, and sells for \$14.95.

Once you acquire some programming skill you can try books like *The Computer Tutor* (Winthrop Publishers, Cambridge, MA). It's

Continued on page 94

The Atari 1200XL: Sleek, streamlined and compatible with the 400/800

The newest star on the Atari computer firmament is the 1200XL, announced just before we went to press. While we don't have a final retail price yet, Atari says it will sell for "less than \$1,000." Translated into real money, that probably means between \$800 and \$900.

What does it have that's so special? When you first look at it, you notice the sleek, new, streamlined look with a strong family resemblance to the sloping panel of the Model 5200 game machine.

The keyboard has been completely redesigned, and Atari has corrected some of the complaints we had about the 800's keys. That reverse graphics key has been moved off the keyboard entirely and placed in a row of special function keys at the top of the console. Also at the top are the keys for BREAK, START, OPTION and SELECT along with four numbered special function keys. And the two SHIFT and the DELETE/BACKSPACE keys have been made larger and easier for us old-time typists to find without making so many programming errors.

Under the hood is a built-in user memory of a whopping 64K of RAM. Sure, you can get this much memory in the 800 with a special plug-in, but it's really nice and handy to have this much memory built in for starters.

The program and game cartridge slot has been moved outside, and is recessed on the left-hand side of the console, next to the two game controller ports—down from the four ports on the 800.

The rest of the machine is pretty much the same as the 800. You'll be pleased to hear that it uses all the same peripherals, accessories and programs as the 800 does, so your programs and games won't become obsolete.

The Atari 400: Hundreds of dynamite games and it's only \$300

A lower-priced companion computer to the Atari 800 is the model 400. This system sells for under \$300 and will do most of the things that its big brother will do with a few differences.

Most noticeable is the flat membrane keyboard. If you're going to do a lot of programming or typing, this can be a definite drawback since flat keyboards are less responsive and the keys don't give you that positive keystroke feel.

The 400 has just one cartridge slot and comes with 16K of RAM. This limits what you can do in the way of detailed programming and using certain games and software that require more memory. You can expand the 400 up to 32K of RAM, but to do this you need the help of a qualified technician.

Although the 400 has certain programming limitiations, it can still give you all the same dynamite gameplay action with plug-in game cartridges. Most cassette programs will also work with it, but many diskette programs might not.

If you've had no previous introduction to computer or computer programming and you're looking for a reasonably priced computer, the Atari 400 might meet your needs. Despite its smaller memory, you can still use the Atari BASIC cartridge with it and sharpen your programming skills by practicing with simple, short programs. In additon, the 400 features all the color and graphics capabilities of the 800 so you can draw and design some rather sophisticated things.

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THE GAMES NETWORK ... and play a galaxy of games!

There really is a Games Mansion, and it's located in the Hancock Park area of Los Angeles, California. Inside is a splendid blend of the old and the new— antiques and carved wood, computer terminals and television monitors. This is the headquarters of The Games Network (TGN), which is coming to cable systems everywhere, sometime in mid-1983.

The brainchild of Larry Dunlap and Thom Keith, The Games Network promises to have a profound effect on gaming, computing and television itself. The basic format is a marriage between two technologies: computers and cable television. Its debut will have an immediate impact on the gaming industry, while its farreaching implications are akin to those of Marshall McLuhan's "global village" and Alvin Toffler's "third wave." But first, the basics.



By Bob Safir

Cable subscribers of TGN will have a new "little black box" to add to their array of home electronic components. It will have a screen resolution of 280 by 190 pixels and will be capable of handling 64K bytes of memory. 16K will be devoted to "transportation" of information down the cable, leaving a full 48K for the games themselves. At present, users must have an Apple computer but, because the controller interfaces with a 6502 microprocessor, any computer that uses that model should be compatible in the future. This is a remarkable achievement for home systems. The advantages are not only attractive technically, but monetarily as well. The installation cost to the subscriber is around \$50, while the monthly service charge will be around \$14. Along with it comes the controller or keypad, with the option to add any joystick of your choice. In a sense, you'll be "leasing" the entire system.

What will you get for \$14 a month? Would you believe 20 different, exciting, state-of-the-art computer games? How about adding and rotating five new games per month, keeping on the most popular ones and selecting from the best computer software around? This is only a part of what The Games Network will have to offer.

Any gamer knows the downside of home systems-it's the cost of the cartridges themselves, and what I call the BQ, or Boredom Quotient. TGN nicely answers both of these problems because of the low cost (miniscule by comparison) and the rotation of new games every month. By the end of one year, you will have been introduced to at least 80 of the best computer games around. And while you're busy trying to improve your high score, a staff of knowledgeable people will be reviewing and selecting the creme-de-la-creme of high end computer games for this system.

The Software

TGN's approach to software and marketing is unique and allencompassing. It will incorporate the needs and whims of gamers while stimulating software authors to write new and exciting game programs.

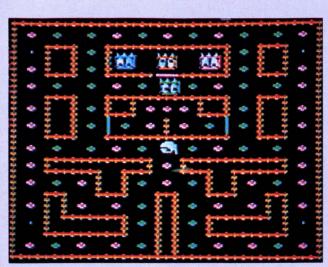
The kinds of software Dunlap is talking about range from your basic shoot 'em ups to adventure games and educational programs. While arcade-style games will be one of the attractions of TGN, the

capabilities of the system will offer advanced programs which combine both graphics and adventure into one show. "The difference between this and ColecoVision or Atari 5200 is that they are mostly translating arcade games down to home use, Dunlap contends. "Many games are 'Zap - you're dead' right away. Many of these games don't teach you anything. They're designed to get as many quarters as possible right away. We'll have that type, too, but it will only be a part of what we're doing-like the 'Hit of the Month.' They'll be like your first run movies, but not necessarily vour favorite ones."

What are some of the games that will debut on the system? *Aztec* and *Swashbuckler* by Datamost, *Serpentine* and *Choplifter* by Broderbund, *Pool 1.5* and *Juggler* by IDSI, *Cribbage* by On-Line and a series of educational games by

Edu-Ware. As of this writing, Dunlap is meeting with the major arcade folks, too, and while at first glance TGN might seem like competition

ELECTRONIC FUN-COMPUTERS & GAMES



3

to other game-makers, it is more likely that it will be a mutually beneficial relationship. With the hun-

dreds of VCS games flooding the market, and hundreds more on the way, shelf space in stores will be at a premium. Add to that the confusion factor of consumers as to which cartridge to buy. "We will be the 'airplay' of games," says Dunlap. "We'll be able to offer the 'heavy hitters' exposure on the system for a period of say, 90 days, then take it off. That way the people will be able to determine which games they like or don't like. Imagine the music business without radio. You'd

have to sit in a record store all day to hear your favorite songs. We will be the radio network of computer games."

It is no coincidence that there's a correlation here to the music business, for Dunlap comes from a background as a performer, recording studio owner and personal manager. This is significant because of the way TGN looks at the whole software business. Jim Summers, head of Program Acquisition for The Games Network, puts it this way: "The programmers are writing hit songs! Their name and the software company's name come up on the screen at the beginning of each game. The software author retains all of his rights. Just because we carry his game doesn't mean he can't sell it to someone else as well. The soft-

ware author is the key to everything. vet he doesn't have to wait for a particular brand of computer to sell x

Any 48K game will work on our system.'

User-friendliness is a term which describes the simplicity in executing a computer program. Keeping that in mind, TGN has developed a controller of 24 mechanical action and membrane-type keys that operate the same way every time. Up arrows always move things up, down is down, right is right. Although this might seem rather obvious at first, computer users know that keys often have a variety of functions and various programs require different



keys to make them go. Rather than having to learn a new system each time you learn a game, the menu button will always get the menu, the reset button will always mean reset. Each program that gets into The **Games Network** system will be adapted for the controller and simplified

number of units. We're like a record company collecting royalties for the writers."

For you brilliant programmers out there, the key to TGN's software selection is playability. "We play the game for a gut-level reaction," Summers says. "While we can look at a game in any format, in order for it to fly on our system it has to be Apple-compatible.

Some of the games from TGN: SNACK ATTACK (above), NIGHT MISSION (center) and LAZER MAZE.





Since you won't be able to save a game in progress on disk or tape (at least at first), methods are being developed so that adventurers learn certain passwords to get to higher levels. This will also contribute to a feeling of a character "progressing" in an adventure story. All in all, efforts are being made so that gamers can spend more time having fun at the game and less time trying to figure out how to use it.

When you think about it, the whole idea of The Game Netowrk makes a lot of sense. It makes sense for the gamer, because he won't have to sell his bicycle or take out a second mortgage in order to keep up with the latest cartridges. It makes sense (and cents) for the cable operator, because it requires no cash outlay to carry the system. They can only stand to make money by carrying it, and cable operators like that! Finally, it makes sense for the gaming business, because with this kind of massive distribution system, their products will have an outlet before, during and after their heyday. It's one of those ideas that make you say, "Why didn't I think of that?"

The logo on The Games Network letterhead reads "Tomorrow On-Line Today." While there are those who still fuss about the negative effects of video games, true gamers and computer-users know differently. Television up to now has been a passive, one-way medium, and much of the time, a lousy one at that. The tactile, immediate, interactive sensation derived from this new breed of technology is equalled by no other. "All I want," Dunlap exclaims, "is for people to hands-on touch and see that we can take these very sophisticated programs that exist in the microcomputer field and ship 'em down a cable to people's homes. We'll appeal to the people who might be in-

timidated by a computer or don't want to go to the trouble of learning it. The computer is for the hobbyist, but the stuff that the computer does belongs to the people."

The marriage of computer and cable will make this new technology accessible to millions. There will be a low speed serial and high speed parallel interface to provide for disk storage, hard printers, home computers and expansion of a full alpha numeric keyboard later on. They are also providing for a universal joystick input so that users may choose their own device, whether they want a \$10 stick or a gourmet unit priced at up to \$100.

It was only recently that Alvin Toffler in his book. The Third Wave, made predictions of the "electronic cottage" of the future, and it was only a year ago that Larry Dunlap and Thom Keith conceived the idea for The Games Network. Already on the drawing boards are The Fantasy Channel and The IQ Channel. Although most cable systems are one-way right now, many have the potential to upgrade to two-way capability. When they do, other concepts of Toffler's electronic cottage become feasible. And when systems become two-way, TGN will be ready, for it has already

designed that capability into the hardware.□

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TROYER

This month's winner is Jim Stockla. Jim is a 21-year-old former college student who disrupted his studies to write computer games full time.

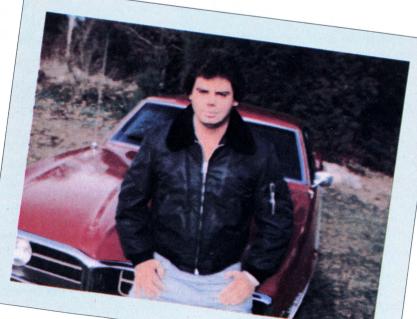
Star Destroyer was his first attempt at creating a real game and was written for the Apple. Jim says he still plays the game because he enjoys "blowing things up."

STAR DESTROYER

If you have an Apple II with Applesoft, you can soon be playing *Star Destroyer*, a colorful arcade game set in deep space. As the Star Destroyer, a glowing monstrosity nearly the size of a galaxy, your mission is to destroy every star on one level before your energy runs out.

How to Play

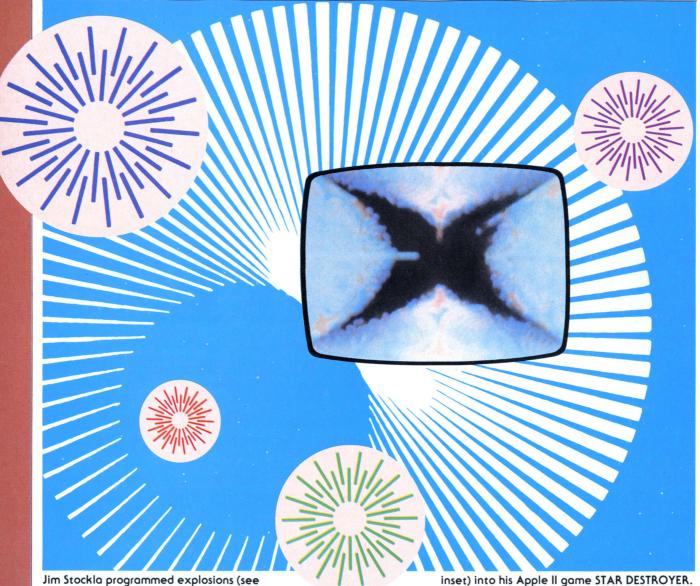
The Star Destroyer is represented on the screen by an orange asterisk-shaped object. It's about one-fourth the size of the screen so it's hard to miss. The stars are small blue squares scat-



tered randomly on the screen. They move slowly at first but speed up in later stages of the game. Also on the screen is a cross-shaped base where you can

Jim Stockla, author of STAR DESTROYER

ELECTRONIC FUN-COMPUTERS & GAMES



dock for energy. However, there is a 25% chance that you will lose energy and you can use a base only once on each level.

To dock, simply hit the center of the base with your Star Destroyer. Stars are exploded in the same manner. When a star blows up, rays of energy shoot out in all directions. If a ray hits another star, that star blows up also. This can start a chain-reaction as stars explode all over the galaxy.

When all of the stars have been destroyed, you hyperwarp to another sector of the universe accompanied by appropriate effects. You will need to dock more often in later stages of the game. because hyperwarping puts a drain on the old power cells. Eventually you will run out of energy and lose the game. Don't

bother checking the energy gauge to see if you lost, because you will know when the game is over. Believe me, you'll know.

Controls

Controlling the game is easy. You move the Star Destroyer by pressing the "A" key for up, the "Z" key for down, the left arrow key for left, and the right arrow key for right. The Star Destroyer will travel in a given direction until you press a different direction key. If earthly matters disrupt your game, you can pause by pressing the escape key (ESC).

Strategy

In order to formulate the best strategy, you must understand the scoring system. Every time a star blows up, a number equivalent to

inset) into his Apple II game STAR DESTROYER.

the amount of energy left is added to your score. Besides the obvious strategy, hitting as many stars as quickly as you can, docking at a base early will usually help your score. The only exception is when vou have barely enough energy to finish a level. Then it would be wise to risk the loss of some of your remaining energy and avoid the base. \Box

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 self-addressed, stamped envelope. 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.

```
STAR DESTROYER
                   ***
**
   BY JIM STOCKLA
                   ***
***
120 HPLOT X(J) + 1,Y(J) + 1: HPLOT X(J) + 1,Y(J) - 1: HPLOT X(J) - 1,Y(J)
     + 1: HPLOT X(J) - 1, Y(J) - 1: RETURN
130 XA = XP - LX: IF XA < 0 THEN XA = 0
140 YA = YP - LY: IF YA < O THEN YA = O
150 XB = XP + LX: IF XB > 279 THEN XB = 279
    HPLOT XA, YP TO XB, YP: HPLOT XP, YA TO XP, YB: HPLOT XP, YP TO XB, YA: HPLOT
160 YB = YP + LY: IF YB > 159 THEN YB = 159
     XP, YP TO XB, YB: HPLOT XP, YP TO XA, YB: HPLOT XP, YP TO XA, YA: RETURN
     HCOLOR= 3: HPLOT BX + 1, BY TO BX + 4, BY: HPLOT BX - 1, BY TO BX - 4, BY
      : HPLOT BX, BY + 1 TO BX, BY + 4: HPLOT BX, BY - 1 TO BX, BY - 4: RETURN
170
180
 190 J = J + 1: IF J > 29 THEN J = 0
      IF \chi(J) = 0 THEN 190
 220 G = INT (4 * RND (1)): ON G GOTO 250,270,290
 230 X(J) = X(J) - SP: IF X(J) < 0 THEN 250
 250 X(J) = X(J) + SP: IF X(J) > 278 THEN 230
 240 GDTO 300
  270 Y(J) = Y(J) - SP: IF Y(J) < 0 THEN 290
  260 GOTD 300
  290 Y(J) = Y(J) + SP: IF Y(J) > 158 THEN 270
  310 EN = EN - 1: PRINT : PRINT SC, HS, EN; IF EN < 0 THEN 810
  320 A = PEEK ( - 16384) - 128: PDKE - 16368,0
       IF A = 27 THEN GET AS: GOTO 380
   340 IF A = 65 THEN 390
   330
       IF A = 90 THEN 410
       IF A = 8 THEN 430
   350
   390 Y1 = Y1 - INT (4 * RND (1) + 1) * 2:C = 1: IF Y1 < 1 THEN Y1 = 1
   370 IF A = 21 THEN 450
                   INT (4 * RND (1) + 1) * 2:C = 2: IF Y1 > 159 THEN Y1 = 159
   400 GOTO 460
   410 Y1 = Y1 +
                   INT (4 * RND (1) + 1) * 2:C = 3: IF X1 < 1 THEN X1 = 1
9
    420 GOTO 460
                  INT (4 * RND (1) + 1) * 2:C = 4: IF X1 > 279 THEN X1 = 279
    430 X1 = X1 -
    440 GOTO 460
         HCOLOR= 0:XP = X2:YP = Y2:LX = 70:LY = 40: GOSUB 130:X2 = X1:Y2 = Y1
    450 X1 = X1 +
         HCOLOR = 5: XP = X1: YP = Y1: LX = 70: LY = 40: GOSUB 130
         IF BE = 1 THEN & A = BX, BY: IF A = 1 THEN EN = EN + INT (100 *
    460
                                                                             RND
          (1) - 25): BE = 0: POKE 807, 50: CALL 809: IF EN < 1 THEN EN = 1
     470
     480
     490
          FOR G = 0 TO 29: IF X(G) = 0 THEN 520
 11
         & A = X(G), Y(G): IF A = 1 THEN 530
     500
     510
     520 NEXT : GOTO 190
          FOR J = 0 TO 29: IF X(J) = 0 THEN 650
     540 & A = X(J), Y(J): IF A = 0 THEN 650
     530
     550 SC = SC + EN: IF SC > HS THEN HS = SC
          HCOLOR= 5:XP = \chi(J):YP = \gamma(J):LX = 279:LY = 159: GOSUB 130
      560
      580 G = G + 1: IF G = 11 THEN 600
  30
          PDKE 807, G: CALL 809: GOTO 580
      600 X(J) = 0:EX = EX - 1: IF EX > 0 THEN 650
           HGR : PRINT : PRINT SC, "MISSION ACCOMPLISHED";
  33
            HCOLOR= 4: FOR G = 0 TO 159 STEP LE + 1: HPLOT 0,G TO 279,159 - G: POKE
           HCOLOR= 7: HPLOT 0,191: CALL - 3082
      610
                         279 STEP | F + 1: HPLOT G.O TO 279 - G,159: POKE 807, (G +
       620
            807, (G + 10) / 10: CALL 809: NEXT
       630
                                                                          130: HCOLOR=
```

```
640
    NEXT : HGR : HCOLOR= 5:XP = X1:YP = Y1:LX = 70:LY = 40: GOSUB 130: HCOLOR=
     6: FOR J = 0 TO 29: IF X(J) = 0 THEN 670
650
     GOSUB 120
     NEXT : IF BE = 1 THEN GOSUB 180
660
670
     FOR J = 768 TO 829: READ G: POKE J,G: NEXT : POKE 1013,76: POKE 1014,
680
690
     0: POKE 1015,3
     HOME : INVERSE : VTAB 21: PRINT SPC( 13); "STAR DESTROYER"; SPC( 13)
700
     VTAB 22: PRINT SPC( 13); "BY JIM STOCKLA"; SPC( 13)
     VTAB 23: PRINT "SCORE"; SPC( 8); "* HIGH SCORE *"; SPC( 5); "ENERGY"; SPC(
710
720
730
     POKE 34,23:G = ( - PEEK (78) - PEEK (79) * 256)
     HGR : PRINT : PRINT SC,: FLASH : PRINT "PREPARE FOR LEVEL ";LE;: NORMAL
740
760 HCOLOR= 6: FOR J = 0 TO 29:X(J) = 2 * INT (138 * RND (1)) + 1:Y(J) =
 750
      2 * INT (78 * RND (1)) + 1: GOSUB 120: NEXT
 770 BX = INT ( RND (1) * 135) * 2 + 5:BY = INT ( RND (1) * 75) * 2 + 5: GOSUB
 780 EX = 30:X1 = 139:Y1 = 79:EN = 105 - LE * 10:LE = LE + 1:SP = LE + LE: IF
      EN < 1 THEN EN = 1
 790 X2 = 139:Y2 = 79
     HGR : PRINT : PRINT SC,: FLASH : PRINT "OUT OF ENERGY";: NORMAL
     GOTO 190
 800
      HCOLOR= 5: HPLOT 0,191: CALL - 3082
 810
 830 FOR G = 20 TO 70: POKE 807, G: CALL 809: NEXT
 840 FOR G = 69 TO 20 STEP - 1: POKE 807, G: CALL 809: NEXT
 860 GET AS: IF AS = "N" THEN TEXT : HOME : PRINT "THE HIGH SCORE WAS ";:
        INVERSE : PRINT HS: NORMAL : PRINT "HOPE YOU ENJOYED PLAYING!": END
  870 IF A$ < > "Y" THEN 850
  B90 DATA 32,227,223,133,133,132,134,169,208,32,192,222,165,18,72,165,17,
  880 SC = 0:LE = 1: GOTO 750
       DATA 246, 32, 17, 244, 165, 48, 49, 38, 240, 2, 169, 1, 168, 32, 1, 227, 76, 91, 218
       DATA 255,1,173,48,192,136,208,5,206,39,3,240,9,202,208,245,174,39,3,
  900
  910
       TEXT : HOME : FOR G = 1 TO 40: PRINT "*";: NEXT
       PRINT "*"; SPC( 12); "STAR DESTROYER"; SPC( 12); "*";
  920
   930
       FOR G = 1 TO 40: PRINT "*";: NEXT
       PRINT : PRINT SPC( 14); "INSTRUCTIONS": PRINT
   940
       PRINT "MOVE A LARGE, PULSATING 'STAR DESTROYER'THROUGH SPACE AND TRY
   950
   960
       PRINT "SQUARE BLUE STARS BEFORE YOUR ENERGY": PRINT "RUNS OUT.
                                                                        YOU C
        AN ALSO DOCK WITH A": PRINT "CROSS-SHAPED BASE FOR MORE ENERGY, BUT"
        PRINT "THERE IS A 25% CHANCE THAT MORE ENERGY WILL ESCAPE YOUR ENERG
   970
        PRINT "TO MOVE UP, HIT THE ";: INVERSE : PRINT "A";: NORMAL : PRINT "
        Y CELLS THAN WILL ENTER THEM. ": PRINT
   980
   990
        PRINT "TO MOVE DOWN, HIT THE ";: INVERSE : PRINT "Z";: NORMAL : PRINT
   1010 PRINT "TO MOVE LEFT, HIT THE ";: INVERSE : PRINT "<-";: NORMAL : PRINT
    1020 PRINT "TO MOVE RIGHT, HIT THE ";: INVERSE : PRINT "->";: NORMAL : PRINT
    1030 PRINT "TO PAUSE, HIT THE ";: INVERSE : PRINT "ESC";: NORMAL : PRINT
    1040 PRINT "TO CONTINUE AFTER PAUSING, HIT ANY KEY."
    1050 FOR G = 1 TO 40: PRINT "-";: NEXT : PRINT SPC( 7); "HIT ANY KEY TO S
         TART GAME.";: GET A$: GOTO 690
```

ELECTRONIC FUN MAGAZINE'S

HOME

- 1. PITFALL! (Activision)
- 2. FROGGER (Parker)
- 3. RAIDERS OF THE LOST ARK (Atori)
- 4. BERZERK (Atari)
- 5. E.T. (Atori)
- 6. DONKEY KONG (Coleco)
- 7. DEMON ATTACK (Imagic)
- 8. THE EMPIRE STRIKES BACK (Imagic)
- 9. RIVER RAID (Activision)
- 10. PAC-MAN (Atari)

ARCADE

- 1. MS. PAC-MAN (Midway)
- 2. JOUST (Williams)
- 3. DONKEY KONG JR. (Nintendo)
- 4. JUNGLE HUNT (Taito)
- 5. MOON PATROL (Williams)
- 6. DONKEY KONG (Nintendo)
- 7. CENTIPEDE (Atari)
- 8. PAC-MAN (Midway)
- 9. GALAGA (Midway)
- 10. TRON (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. All the home games this month are for the Atari VCS.



Selected Scenes from the Computer Evolution

Millions and millions of years ago, one-celled animals in the ocean used to go off by themselves and do addition, subtraction and conjugation. They were a society of loners. Then, a group of far-thinking amoebae decided they'd had enough of this solitude. So they got together and formed one very sophisticated circuit board so they'd never have to solve arithmetic problems alone again. This was the first integrated circuit chip which might have worked well had it not been for the fact that it was continually short-circuiting because it was always wet.

By Randi Hacker

The very first prehistoric computer crawled up out of the primordial soup around noon (EST) in the Cenozoic Era. Unfortunately, man had not yet evolved so it crawled right back into the water and worked on improving its backstroke for another several thousand years instead.

During the early days, computer engineers (most of whom worked for IPM or International Primitive Machines) fashioned their machines out of stone. This was because of the abundance of stone and if they didn't do something with it, who would?

The first computer (whimsically called the Atari 400/ 800 BC) was heavy and huge. Needless to say, it was not portable. In addition, it required a great deal of time to perform even the simplest function such as correctly adding up the number of legs on a mastodon. The eventual extinction of mastodons put an end to this problem altogether.

In general, prehistoric computer engineers did not wear suits, preferring simply to carry a club and crouch. This lack of proper attire was acceptable except when they attended conventions. Then it was embarrassing.

In many ways, early computer engineers were more efficient than they are today. In addition to not wearing ties, prehistoric engineers did not not wear shoes either. This—and the presence of the prehensile toe—enabled them to write programs and eat lunch at the same time thus eliminating lunch hour. Two of the earliest computer engineers to evolve were RAMapithecus and ROMapithecus.

While computer hardware was scarce in the early days (what with so many natural predators around keeping the population from escalating), software was abundant. The frequent rain and temperate climate made it a perfect environment for cultivating crops of software. One of the many programs available was the Cave Drawing Processor which allowed the user (such as he was) to program in all sorts of crude drawings of bison and woolly mammoths. While the graphics were primitive and consisted mainly of stick figures of large and frightening beasts, this did not matter as the tastes of the artists themselves were not highly developed. This was a very low-res era.

Although drawings were stored on a medium known as the Cave Wall, other programs (such as the Home Finance program which converted rocks into American dollars) were stored on tusks. The hard tusk was subsequently replaced by the floppy tusk which was cheaper to produce and a lot easier to fold.

Tarpitfall!

The most common language at the time was known as UGS (Universal Grunt System). This rather low-level language understood only two commands: GO and RUNAWAY. The last came in handy, especially when menacing creatures with sharp teeth came by for dinner.

Among the more popular games were *Masto-Tron* in which

you had to save the *first* human family; Ms. Cave-Man in which the woman got a club and had to knock out the mate of her choice and *Tarpitfall!* in which you were Cro-Magnon Harry and have to swing over tarpits and stay alive in the forest primeval. Another popular game was Monkey Kong in which you were represented by an Italian carpenter and had to climb evolutionary ladders progressing from ape to Homo sapiens, leaping over glaciers and rescuing your girl from the dreaded saber-toothed tigervision.

The next generation of computer was fashioned out of sticks. Operated by an intricate system of vines and pulleys known as the GOS (Green Operating System). These computers performed complex functions at a faster speed but tended to ignite in the process.

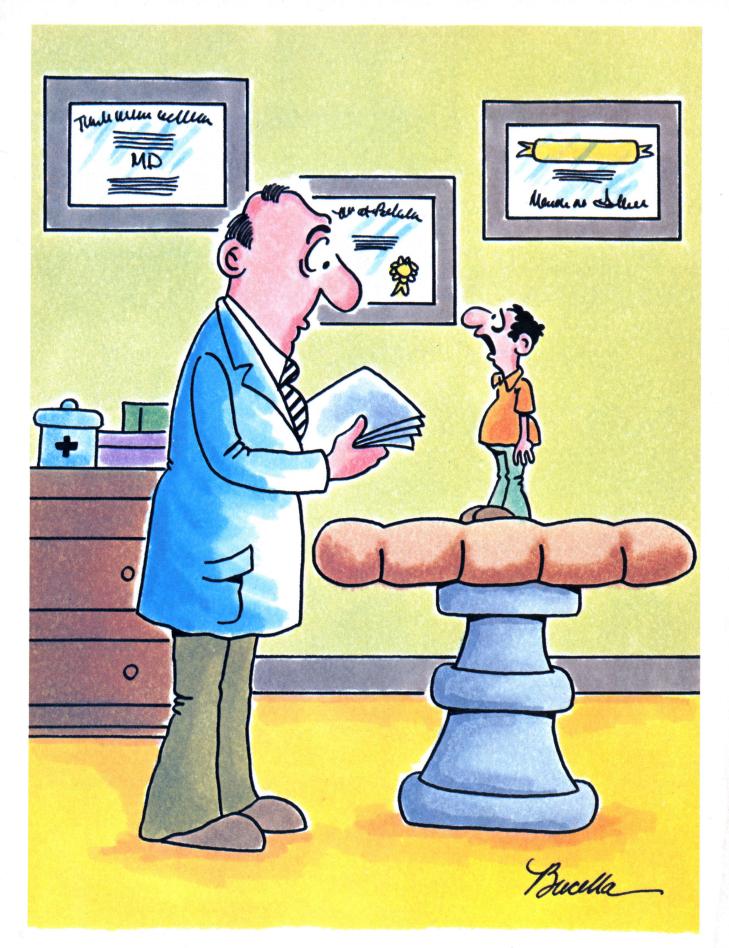
Another problem with the stick computers had to do with durability. They were easily blown over by big bad wolves and so the next model was constructed out of brick. No matter how the wolves huffed and puffed, they could not blow the computer down. When these became obsolete, upper middle class Cro-Magnons used them as backyard barbecue pits.

Things continued to progress at an alarming rate with the gradual sloughing off of the vestigal reel-toreel tape deck. During the Plasticene Age, computers got

smaller and man stood up straighter. Or vice versa. Finally, man discovered how to

make cloth, ushering in the Garb Age

during which time engineers began wearing suits. This gave rise to fashion shows, trendy boutiques and permapress computers with belts in the back. Of all the computer models, these were the only ones permitted to appear in fancy restaurants. Those computers without belts were unceremoniously shown the door. This gave rise to the only computer expression that has withstood the test of time, namely, "Garb Age in, Garb Age out."



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ELECTRONIC FUN-COMPUTERS & GAMES



Qursing Q*bert: you, Coily!



By Michael Blanchet

Last year, the kings of the cutesie set were a gang of ghosts called Pinky, Speedy, Winky and Clyde. This year the flourescent foursome may take back seat to a bunch of armless cube hoppers named Slick, Sam, Coily, Ugg and Wrongway, all of whom are characters in Q^{*bert} , the latest video game spectacular from Gottlieb.

Is it a maze game, you ask? No. And it's not a shoot-em-up either.



 Q^*bert 's plot involves a jumpy fella who is, apparently, part anteater, part gumball, and part kiwi. He hops around a pyramid made up of cubes. His job is to make every upper tile on each cube in the pyramid the same color. Q^*bert does this by jumping from cube to cube, avoiding the gang of five as he goes.

First, a profile of the predators. The deadliest and most tenacious foe is Coily. This snake-like villain first appears as a purple egg. After dropping down to the lowest level of the pyramid, each purple egg sprouts one Coily, who then chases Q*bert. To rid yourself of Coily, head for one of the multicolored discs floating in space beside the pyramid. I recommend waiting until Coily is a hop or two behind Q*bert before leaping on the saucer. By doing so, you have committed Coily to leaping off the pyramid. Don't rush to cover all the cubes as fast as vou can because vou'll then miss out on the easy points earned by disposing of Coily. Play around with him. See how he moves and reacts to your movements.

Ugg and Wrongway are unique in that they move from cube to cube sideways. These two must be assiduously avoided because, unfortunately, they're not as easily disposed of as Coily. Since Ugg and Wrongway are capable of movement in only one direction, they're no longer a threat once Q*bert passes them. When Ugg and Wrongway reach the bottom of the pyramid, they fall off and disappear.

A rule of thumb is to avoid anything that is not green. This includes Coily, Ugg, Wrongway and



the purple and green eggs. The green objects, Sam and Slick in particular, do not pose a threat to Q*bert. In fact, the green ball, if captured, will aid Q*bert in the completion of his task. If Q*bert catches it, the board and all its occupants will freeze momentarily, allowing Q*bert to move unhampered by the villains.

Cube Stake

Q*bert is propelled by a fourposition joystick that moves diagonally as opposed to north, south, east and west. To move down and left, move the control handle southwest; southeast for down and right. For continuous movement with minimal pause between stops, hold the joystick in one direction. To reach a cube adjacent to the one Q*bert is standing on, it is necessary to jump either up or down to the box bordering the target cube. Straight lateral movement is impossible.

When the game begins, move Q^* bert away from the top of the pyramid as quickly as possible. This is where the purple and red eggs enter the playfield. Cover the squares farthest from the flying discs while the purple eggs are making their way to the bottom. Your best bet is to cover the bottom two rows first, then work your way back toward the top. \Box

GAME MAKERS

Continued from page 43

they have pushed the system to the point that now we're seeing incredible games like PITFALLI and DEFENDER. PS: That's right, and I think it can be pushed even further.

EF: Tell us about these Sesame Street games you worked on.

PS: We had to make all the Sesame Street characters recognizable on the screen with blocks and limited color. My primary concern was to make something that would look as close as possible to the real Muppet and keep it entertaining and animated. You'll find that some of the things that look terrific on paper will look lousy on the screen because of artifacting and other factors. Then you have to go back and draw it again. It takes a tremendous amount of work just to make a character like Grover nod his head. We had a lot of trouble with Big Bird. When we first rendered him on paper he was really blocky-it looked like he'd been run over by a steamroller. So we fluffed it up and gave it to Jim Henson and his people. They shortened the beak a little, moved the eyes slightly, and after a lot of work, we finally had a decent Big Bird. I might also mention that at one point, just for fun, we chopped off Big Bird's head and substituted a pumpkin for Ernie's.

(Editor's note: Atari has just announced a new line of video games for children. In addition to Sesame Street, they have licensed Peanuts, the Muppets and Disney titles for release in the next few months.) EF: What about SATMAR?

PS: Satmar is the combination of Saturn and Mars. Atari asked me to design some characters for a possible video game they were putting together. They told me, "We want a robot, a monster and two other characters on a planet somewhere between Saturn and Mars." That was it. I created the background and the story line. Atari owns these characters and they may be putting that into a game right now for all I know.

Continued on page 96



Here are the latest, most exciting arcade and adventure games PDI has ever offered ATARI® computer owners!

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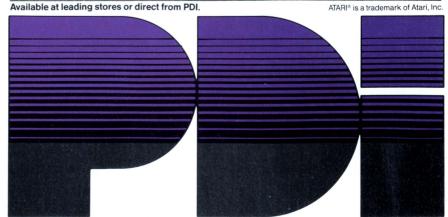


Most Innovative Game of 1982 (Electronic Games Magazine)

Moonbase lo is a winner every way. It's a voiceactivated arcade game with three very different adventure settings. 1) Navigate the alien mine field. 2) Defend Moonbase lo. 3) Attack & destroy mother ship. If you win, you get a personal Presidential commendation from Earth! Seven levels of difficulty. Sensational graphics. 24K Disk, Cassette & Joystick/16K Cassette & Joystick.



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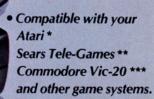


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ATARI 800

Continued from page 76 \$10.95 and has some very innovative educational programs in it. They may require some small changes to work with the Atari.

Probably one of the most important programs you can buy for the 800 is Atari's *Touch Typing*. Programming is hard enough to begin with and can be extremely frustrating, if you don't know how to type. This cassette will help make an expert out of the worst keyboard klutz in short order. Sure, it contains some boring and repetitive drills—necessary to learn any kind of new reflex action—and it may not be a lot of fun, but it works.

Atari also has a three-part tutorial series on cassette called *An Invitation to Programming*. It's especially handy for people who would rather do it than read about it. The cassettes contain programming material as well as a recorded instructor's voice which plays through the TV set's speakers. Part 2 even has a music track with some contemporary sounds at the beginning to help set the stage and make it more interesting.

Creating graphics and special effects with the 800 opens up another area of adventure. The computer's color capability is enormous and it's possible to make the system jump through hoops with graphics programming. But all such programs require patience and experimenting. Some are really easy and, because the computer uses BASIC, you can write special programs and subroutines that can make graphics plotting even easier.

There are lots of other spectacular things you can do with the 800. By using some of the more interesting graphics programs in the several books available, you can create colorful displays and routines. You can also insert your own modifications in these programs to add your own personality or any variations that you find especially interesting or entertaining. And once you get through the BASIC programming instruction, you might even want to try your hand at writing your own programs from scratch. \Box

LASERDISCS

Continued from page 39 Producers like Leviathan, Vidmax and MTI (which is planning to put an interactive, African treasure-hunt on disc under its ZiMag brand by the end of the year), will continue to stoke the interactive fire. It seems likely that arcades will be the big Broadway stages for the best and brightest interactive games. Simutron's Star Trek, for example, would be extremely difficult to execute in the home. (Though some have tried. In 1981, Bell Laboratories veteran Robert Lucky sketched out an international video game network called GameNet that would interface thousands of players all over the world via phone and computer. The only thing that stopped Lucky from spreading his GameNet across the globe was that building each custom-made system would have cost about \$10,000 at the time.)

Economics usually stands aside in the face of creativity, or at least waits awhile before lowering the boom. Interactive videodisc games are emerging as the new darling of chic dreamers and designers and the eye of Atari founder Nolan Bushnell is one which is actively surveying the terrain. According to an interview in *The Wall Street Journal*, Bushnell is aiming to get back into the game business with ultra-realistic games merged with flight-simulators "to create a feeling of movement and acceleration." He will, he claims, devote himself to the "spectacle" aspect of video games.

"Spectacle" may be the best word to describe what we're about to see in video games. It's not inconceivable that we'll soon be able to experience four-wall, interactive-disc video games, with video projectors creating a wraparound environment. In costume, you and your team could enter football-sized rooms and prepare to engage in adventure. And maybe there would be moving partitions on tracks, putting 3-D films all around you, and perhaps man-made fog or drizzle.

With interactive videodiscs, all this has begun. \square

Lasers In The Living Room

Most of us think of devices that resemble Luke Skywalker's light-sabre whenever the word "laser" comes up. Or else we think of precision microsurgery or even killer satellites. What we're not realizing is that lasers have gone show-biz.

Since 1980, laser-type videodisc players have been available for the home, and with them have come a multitude of movies, concerts and sports films pressed onto laser (or "LV") videodiscs. The interactive videodiscs that are launching video games into a neo-realistic future are part of that multitude as well.

Right now, Magnavox, Pioneer and Sylvania have LV videodisc players on the market, at prices ranging from about \$500-\$700. Most of the major studios and lots of independent programmers put out compatible discs for about \$25 apiece.

How is it they can keep the laser from burning a hole through your roof? For one thing, it's a low-power beam. For another, it's designed to do nothing more dangerous than play back prerecorded videodisc fare.

Unlike a stereo system's needle-and-groove "pickup" system, a laser beam "reads" information recorded on "micropits" beneath the shiny surface of an LV disc. Enough video and audio information for a TV frame is stored in a single circular track. One disc can hold about 54,000 frames per side.

Because the stylus "glides" over the disc and never actually touches it, there's no wear on either component. An LV disc's lifespan is virtually eternal. And since dust and dirt on the surface don't affect the laser beam, you don't even have to be meticulous about how you clean them. (They *are* breakable, though, no matter what the makers say. Extreme heat and cold won't do them much good, either.)

The gliding stylus can move from the start of the disc to the end in seconds, something that would take minutes with videotape. And with each frame locked in its track, the disc player can hold a frame frozen indefinitely and offer frame advance and slow motion without static-y visual "noise" showing up on the TV screen. Laser-disc players also have two-channel sound for stereo, bi-lingual and dual soundtracks.

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GAMEMAKERS

Continued from page 93

The story line from two games by Preston Stuart:

Knight Spirit must rescue the royal family. Shock, the monkey, has changed Queen Red into Queen Demon. The royal family can only be saved if Knight Spirit can escape the dungeon he is trapped in, find the right path to the castle, and reach Princess Flame.

EGO

Knight Spirit will be tested on his journey by Shock, the Rams and Fillip. He will be aided by his faithful dog Bark and the Strawberry head.

Shock will bowl spinning balls at Knight Spirit. If hit, the knight is disabled. Shock can be eliminated by Knight Spirit wielding his sword and shocking the monkey frozen for the rest of the game. Shock can be chased away by Bark. The Strawberry head acts as a blocker, foiling the attack of spinning balls.

Knight Spirit crosses many hills on his way to the distant castle and if he is lucky he will avoid his adversaries.

Knight Spirit arrives at the castle. He must cross a moat past two hungry crocodiles and climb the wooden drawbridge door, hearing the cries of Princess Flame inside.

Once inside the castle, Knight Spirit is confronted by a grand staircase with Princess Flame on the landing. Knight Spirit must choose one of the stairways to save the princess. If he waits too long to choose, Fillip will appear and place the knight in a trance. If he chooses the wrong stairs, Queen Demon will stop him.

If Knight Spirit chooses the correct stairs, he proceeds up and reaches Princess Flame, thereby liberating Queen Red and freeing the royal family.

(copyright 1983 Preston Stuart)

SATMAR

You are stranded on the blue planet, Satmar, for a three day exploration. You find the planet is inhabited by creatures who are under the control of the evil runaway computer robot, Rotator. Rotator knows you have landed on his territory. He sends his three monsters after you. Xemon, Flying Face and the Satmar Sidewinder.

You must avoid the pit of depth when you move across the landscape. There is a purple tree with safety food to help you escape the three deadly monsters. If you get past the monsters you come face-to-face with Rotator and must combat him. The object is to return to your spaceship safely when it returns. If you make it, you announce your report about Satmar to the space colony.

(copyright 1983 Preston Stuart)

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ODYSSEY

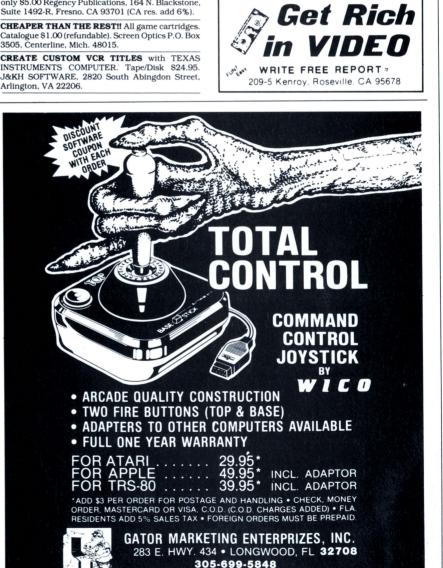
Continued from page 32 competitive with Mattel's and Coleco's computer modules, we may have a real war out there. You can be sure *EF* will give you the scoop on these add-ons as soon as we can get them in our sweaty palms.

It looks like the system has what it takes, though the old Odyssev² games-even the best ones-don't do it in 1983, jazzy backgrounds or no. But the one new game I tested, Flashpoint, is spectacular, and there is also an adventure game in the works. The Adventures of Sherlock Holmes. (In this game, Moriarty informs you that he is about to commit a crime and you must discover the clues that lead to his capture.) So we'll be awaiting the new system eagerly. If the Odyssey designers can consistently come up with games like this, we may be in for the comeback of the decade. \Box



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03D

ELECTRONIC FUN-COMPUTERS & GAMES



coming out with a handheld SPACE

INVADERS . . . Hot news! Nintendo is

Six new cartridges are due to be

sneak-peeked next month. All this

and playing cards, too! . . . What's

the big deal about "Project Falcon"?

New York magazine talks about

some "secret new consumer electronics product" that is "the size of

a TV set" and "will sell for under

communications." **Atori** isn't talking and if you ask me, the whole

\$500" and will "revolutionize

entering the home video game field.

Sega is entering Atari VCS market with TAC-SCAN cart . . . Nolan Bushnell, the Atari founder, is now making home ROBOTS . . . Look in next month's issue for sneak peeks at Intellivision II and III . . . Five Parker designers, including Rex "EMPIRE STRIKES DACK" Bradford, have defected to Activision . . . KEYSTONE KAPERS, SPIDER FIGHTER and OINK coming from Activision . . . RIVER RAID designer is a woman—Carol Show . . .

just getting into **Rubik's Cube**. One store sold 20,000 of them in a few hours at \$7.70 a pop. Maybe next year they'll discover **PONG**

... DONKEY KONG (and its offspring) is not the only thing coming out of Nintendo. According to *Playmeter*, Nintendo makes 80% of the playing cards in Japan ... MS. PAC-MAN beat PAC-MAN! While her boyfriend tucker-

ed out after 96,000 machines, the lady of the house has sold 100,000 of them. Wonder how SUPER-PAC and BABY-PAC will fare. They've got to Pac it in eventually . . . The trick to **SUBROC-3D** is that they have optical shutters that open and close very fast. Each of your eyes is shown a slightly different picture and when they're combined, your brain sees an image that has depth. Just thought you might like to know . . . Lawsuits of the month-Atori has sued Commodore for allegedly ripping off its joystick; Atori has sued Imagic for allegedly ripping off PHOENIX (an Atari license) in the Intellivision version of DEMON ATTACK; Atori has sued Coleco for allegedly ripping off the VCS with their expansion module; Atari has allegedly sued Atori for using the name Atori without permission. Just kidding on that last one . . . Tigervision is

thing is a **crock** . . . **Wico** is coming out with a controller with two fire buttons . . . Licenses are flying! Video game makers, evidently, agree that rather than just make excellent games, they should make excellent games that are ready-made hits. Atari has nailed down **Charlie Brown**, Lucy,

> Snoopy and the whole **Peanuts** gang for some cartridges. Will CHARLIE BROWN **BASEBALL** be worse than HOME RUN? Atari is also negotiating with **Disney** to make games with their characters. Can't wait to see those Mickey Mouse games. Odyssey has licensed the names "Ringling Bros.," "Barn-

um & Bailey Circus," "P.T. Barnum" and "The Greatest Show on Earth." The first game in this series will be P.T. BARNUM'S ACROBATS. I hope they make a The Fly game a hundred years after I die. Parker Brothers has licensed Sky Skipper from Nintendo, Strawberry Shortcake ("the first video game for little girls") from American Greetings, Tutankham from Konami, G.I. Joe from Hasbro, Revenge of the Jedi from Lucasfilms, The Incredible Hulk from Marvel Comics and The Lord of the Rings from Tolkien Enterprises. Also, JAMES BOND 007, which we said was dead a few months ago, is now back in the Parker Brothers library . . . I tried to call Apollo the other day. The phone had been disconnected . . . Remember friends, the Fly knows all. The Fly is on the wall. Don't take any wooden tokens!

the

11

IT'S ONE HOME VIDEO GAME YOU CAN REALLY GET INTO.

2-2-5

Inside Reactor, you fry nutrinos! Bounce positron clusters! Knock out control rods! Shrink the reactor core! Drop decoys! Load the bonus chambers! But most of all, avoid the dreaded vortex! It's one game that demands everything you've got. And gets it.

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OU'RE ROUBLE.

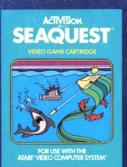


We're talking really deep trouble here. You're the captain of a deep-diving submarine, and your scuba divers are being attacked. Schools of great white sharks have a school lunch program in mind, and your

divers are the main course. You've got to be fast, or your divers will be fast food.

While you've got your eyes on your divers, modern day bluebeards have their eyes on you. These pirates have subs of their own, but they want yours too. Nobody ever said being a captain was easy.

By the way, you'd better check your air supply. You may have to surface to fill your



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These questions and more can only be answered with Seaquest™ for the Atari 2600.[™] Another hit by Steve Cartwright for Activision.

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