

PLAYERS GUIDE TO ELECTRONIC SCIENCE FICTION GAMES

electronic GAMES

Videogames • Computer Games • Stand-Alone Games • Arcades

Dell 04114

March, 1982 • \$2.95

A DECADE OF PROGRAMMABLE VIDEOGAMES

Strategy Session:
UFO
STAR RAIDERS
JAWBREAKER
SCRAMBLE

BEST GAMES OF 1981

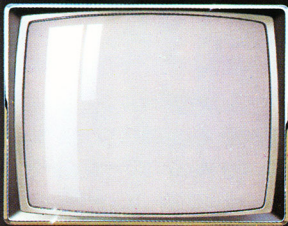




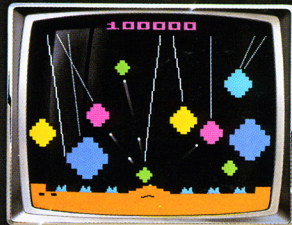
ALL OTHERS



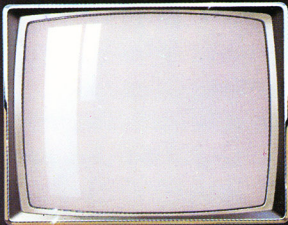
ATARI® SPACE INVADERS*



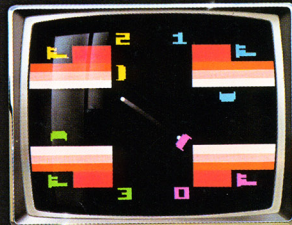
ALL OTHERS



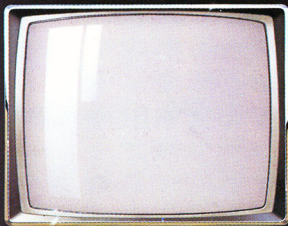
ATARI MISSILE COMMAND™



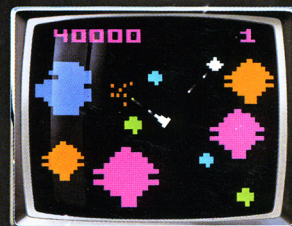
ALL OTHERS



ATARI WARLORDS™



ALL OTHERS



ATARI ASTEROIDS™

ATARI®

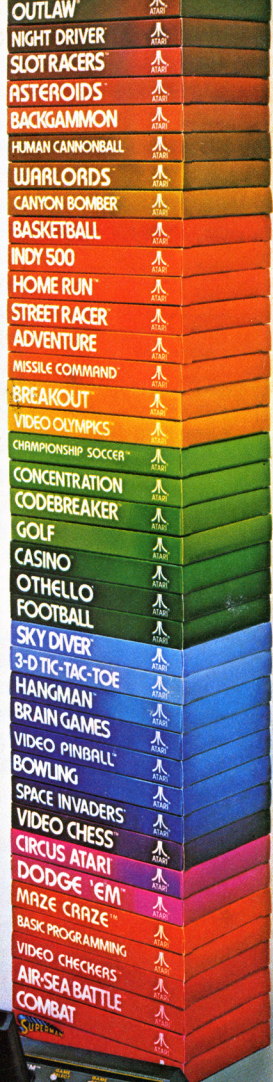
Video Computer System™

THERE'S NO COMPARING IT WITH ANY OTHER VIDEO GAME.

Only ATARI makes the games the world wants most. Games that are innovative. Intense. Incredibly involving. And totally original.

In 1980 ATARI invaded the minds of millions with Space Invaders*. It went on to become the single most popular video game in the world and thereby launched the space age game category.

Today ATARI Missile Command™ and Asteroids™ are the fastest selling home video games in the country. And judging by its current success in the arcades, ATARI Pac Man** is slated for the same next year.



*Indicates trademark of the Taito America Corp.
**Indicates trademark of the Midway Mfg. Co.
© 1981 Atari Inc.

Editor
Arnie Katz

Executive Editor
Bill Kunkel

Editorial Director
Bruce Apar

Senior Editor
Joyce Worley

Technical Editor
Jethro Wright III

Strategy Editor
Frank Tetro Jr.

Hardware Evaluation
Bill Heineman

Contributing Editors
C. Ross Chamberlain
Willy Richardson
Leigh Goldstein
Les Paul Robley

Art Director
A. Wong

Executive Art Director
Harvey Hersh

Graphic Consultants
Creative Concepts

Software Evaluation
Mark Edwards

Publisher
Jay Rosenfield

Co-Publisher
Arnie Katz

Executive Advertising Director
Bruce Mishkin

Advertising Director
Jim Bender
(212) 777-0800

West Coast Advertising Representative
Paul Turchetta
Bill Slappin & Co.
15720 Ventura Blvd.
Encino, CA 91436
(312) 995-0257

Midwest Advertising Representative
Milton Gerber
Gerber & Associates
2607 North Prindle
Arlington Heights, Ill. 60004
(312) 398-3032

Advertising Manager
Tom Kogler

Circulation Director
William D. Smith

Illustrators
David Prestone
Brez
Mark Gerber
Curtis King Jr.
Joe Dyas

Cover Illustration
Abe Boise

Photography
Bob Ghiraldini
David Ross

ELECTRONIC GAMES is published bi-monthly by Reese Publishing Company, Inc., 235 Park Avenue South, New York, N.Y. 10003. ©1982 by Reese Publishing Company, Inc. All rights reserved. (Under Universal, International and Pan American Copyright Conventions. Reproduction of editorial or pictorial content in any manner is prohibited. Single copy price \$2.95. Subscription rate 6 issues for \$15, and 12 issues for \$28. Printed in the U.S.A.

electronic GAMES

Switch On! 6
Electronic Games takes on the arcade scrooges!

Readers Replay 7
Our faithful readers put pen to paper to tell us what they think.

Inside Gaming 8
Meet the design braintrust behind Odyssey's "Master Strategy series".

Test Lab 10
In terms of personal computers, the Atari 400 is the new kid on the block, but gamers have already taken it to their hearts. Now here's the "inside" story from Technical Editor Jet Wright.

Arcade Spotlight 12
Pay a visit to one of the poshest arcades in the world—Castle Park! Photos by David Ross.

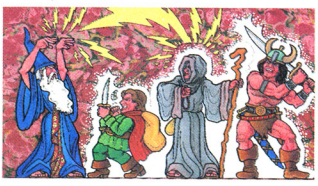
Q&A 14
The friendly ol' Game Doctor is definitely in, and hard at work answering our readers' toughest stumps!

The History of Videogames... 20
It all started at MIT in 1962—and look what's happened since! We've come a long way, baby, and this story tells you all about how it happened!

New Products 24
Videogame furniture, rechargeable batteries and Versa's E-Z Port for the Apple II are all featured in this new column!

Electronic Games Hotline... 26
Tournaments, new games and a new super-game system from Atari are all in the news this issue—and lots more!

Feature Slaying Dragons 30
An introduction to computer adventure games for all you wizards, warriors, dwarves and clerics.



The Making of an Arcade Machine 32
From inspiration to destination—the saga of the coin-op videogame!

Special Section THE PLAYERS GUIDE TO ELECTRONIC SCIENCE FICTION GAMES 35

Videogames' very own star wars is the subject of this issue's magazine-within-a-magazine. For space gamers everywhere!



1981 Arcade Awards 46
It's been quite a year for electronic games, and you'll find the best of them gathered right here to pick up their Arkies!

Computer Playland 50
The hottest computer game software, including "Raster Blaster," "Jawbreaker" and "Sneakers" are all reviewed!

Passport to Adventure 58
EG's newest review column looks at the latest in adventure gaming!

Strategy Session 62
Learn the secrets behind UFO, "Jawbreaker," "Star Raiders" and "Scramble" from super-gamer Frank Tetro Jr.

Programmable Parade 65
The latest in Atari, Odyssey, Intellivision, Activision and Chanel F videogame software are given the three-over from our demanding staff of experts.

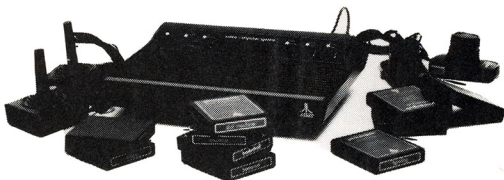
Insert Coin Here 70
Check out the new quarter-snatchers from Atari, Centuri, and GDI!

Stand-Alone Scene 74
Casio's new computerized keyboard and a system for the electronically-oriented quiz whiz are among the stand-alone wonders reviewed this time out!

Crime Does Not Pay 78
Be an electronic Sherlock Holmes with two computerized board games.

Reader Poll 80
Our first poll was such a rousing success we decided to make it a regular feature!

CHANGE THIS



TO THIS



Stores 10 video game cartridges, 2 sets of controllers and instruction booklets.

MODELS TO FIT:
ATARI BY ATARI, INC.
ODYSSEY BY MAGNAVOX
INTELLIVISION BY
MATTEL ELECTRONICS

WITH THIS

VID-LID *Plus*

VIDEO GAME DUST COVER AND STORAGE UNIT

VIDEO *Specialties*

DIVISION OF MALO BAUER CORP.

38035 AUTOMATION DRIVE / M.L. CLEMENS, MICHIGAN 48033

Call Toll Free: 1- (800) 521-0620
In Michigan call Collect (313) 792-5966



The Joys of Electronic Gaming

By Frank Laney, Jr.

It should really come as no surprise to arcaders that the tremendous popularity of electronic gaming has attracted the attention of a few militant spoilsports. It always seems to happen that way. Whenever something new and exciting crops up—whether it's rock music, comic books or even high heel shoes—it's a safe bet that a few grumps will try to take the fun out of it for the rest of us.

It would be easy to refute the often-ridiculous charges such scrooges level at our hobby, but let's leave that particular defense for another time. It's a lot more fun to accentuate the positive and talk about all the good things electronic arcaders derive from participation in this high tech pastime.

The most obvious benefit, of course, is that the games are a blast to play. Electronic games, whether played at home or in amusement centers, are pure entertainment. And in this era of \$5 movies, \$20 steaks and \$100 Broadway shows, arcading offers more fun for the buck than most other types of recreation.

Unlike many other activities, electronic gaming brings families closer together. How many other things can mother and son, father and daughter, enjoy on an equal basis? Most participation sports give such a tremendous advantage to bigger and stronger players that the idea of, for instance, a family game of tennis or golf becomes an exercise in boredom for the grown-ups and a

source of frustration for the youngsters. But as the results of the various video-game tournaments have proven again and again, there's absolutely no reason why an 18-year-old arcader can't whip the tail of a 35-year-old **Electronic Games** editor at **Asteroids** or **Pac-man**.

Arcade games improve hand-eye coordination to a remarkable extent. That's why some therapists have begun using them to aid in the rehabilitation of the handicapped.

On the other hand, the more complex electronic games played on personal computers definitely sharpen the mental faculties. They present people with non-threatening situations that call for quick thinking and carefully planned strategy. The mind is like any muscle; it gets flabby when not in use.

Which brings up the point that arcading, unlike so many other popular pastimes, is active rather than passive. TV, radio, movies and such just wash over us while we sit there quietly. There's nothing wrong with that, of course, but electronic games provide needed variety by giving us something with which to interact.

The act of playing an electronic game has a beneficial effect on the mental state of the arcader, too. Those inclined toward Freudian psychology might express this in terms of catharsis. That is, that blasting space debris and zapping aliens gives a healthful release of tension and an outlet for the aggressive instincts most of us have at least to some extent. Some of the more mystically inclined, on the other hand, have compared playing electronic games to the peace and calm that comes from meditation or reciting a mantra. While the contest is underway, the player becomes temporarily released from the mundane world and is propelled into a simpler and more easily comprehended one. This, it is claimed, may free our minds for contemplation on the cosmic scale.

The list goes on, but the point is obvious: electronic games are certainly more healthful and less harmful than a good many of the other activities that occupy people's leisure hours. No one is advocating that folks become mono-maniacal arcaders, forever linked to the almighty machines in some kind of weird symbiotic relationship. Moderation is the watchword here as it should be with everything else. Yet there's little doubt that the hobby of electronic arcading actually gives players something more than just the obvious rousing good time.

Go away spoilsports, you're interrupting our game.





VCRs Meet Videogames

Here's a way for owners of video recorders to get more out of their video-games:

1. Run a line from the audio output of the video recorder to the input of your stereo system.

2. Attach the RF modulator to the video recorder, rather than the television. (Don't forget to set the switch to "game.")

3. Turn on the television, video cassette recorder and stereo. All sounds will now be channeled through the stereo, giving it a more realistic effect.

If you do not have a video recorder, but your television set has audio outputs, then the RF modulator can be attached directly to the TV.

One advantage of having the game connected to the VCR is that you can record games. This is especially helpful when playing Activision games where the company asks for a picture of the screen if a certain score is passed. Lighting conditions may not always be right for taking the required picture. By recording the game, you can take the picture whenever you like.

I've recorded some games as an experiment after hooking the game up to my stereo. I call this audio cassette tape "Atari's Greatest Hits."

Leonard Herman
Roselle Park, N.J.

★ ★ ★

A Helpful Suggestion

I enjoyed your first issue and am looking forward to the next one. I would like to suggest a minor improvement. How about including in the reviews of all

games and cartridges the minimum and maximum number of players? For example, Atari's **Warlords** would be listed as "(1-4)". This would inform the reader if the game is for solitaire, two or more people, or any combination.

Lawrence Horne
Marlton, N.J.

Ed: Good idea! We always try to include this information in every review, but maybe we can begin breaking it out, since number of participants is a major consideration for many gamers when picking a new program.

★ ★ ★

Overseas Arcading

As you can see from my address, I am an English boy. I bought **Electronic Games** while I was on vacation and found it fascinating.

Please, could you inform me if it would be possible to receive **Electronic Games** in England. I—and a couple of my friends here—would be very pleased.

Adrian Oldfield
Stoke-on-Trent,
England

Ed: Good news, Adrian—and the many other readers who've asked about subscriptions. You'll find the details elsewhere in this issue.

★ ★ ★

Some Game Proposals

I was so happy to see your magazine on the newsstand. The first thing I did was to check to see what issue it was,

and I was glad to see that I hadn't missed one.

Now for my question: Can you find out whether Atari will ever come out with a **Battlezone** cartridge for its VCS? Also, could they make a contract with Centuri for the rights to **Eagle** and **Phoenix**?

Kevin Beardmore
Marietta, Ohio

Ed: Like most manufacturers, Atari is reluctant to tip its hand too far ahead. Still, some form of 'Battlezone,' perhaps for the new super-video game and/or the 400/800 sounds like a reasonable possibility. Given the popularity of Centuri's two coin-op titles, someone will probably license them for home arcading soon.

★ ★ ★

A.N.A.L.O.G., meanwhile, a magazine and game software publisher devoted exclusively to the Atari computers, is reportedly already working on a version of **BATTLEZONE** for the 400/800.

continued on page 61

Readers Score with 'UFO'

In the first issue, we set a score of 800 as the dividing line between adequate "UFO" players and the real superstars. Since then, we've received a flood of mail from arcaders who've met and passed the test. It would be impossible to list all the folks who've achieved this milestone—and more names are arriving every day—but we especially want to single out the Dimperio clan of Erie, Pa., three of whom have cracked the 800 mark! That's what we mean when we call electronic arcading a hobby for the entire family. ★

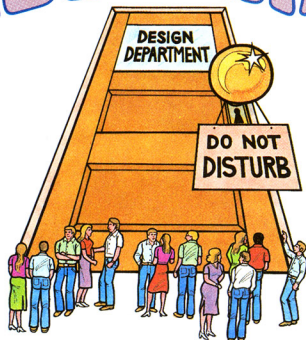
INSIDE GAMING

By Bill Kunkel

Some videogames are the result of a happy accident. Unexpected inspiration leads a designer in a direction he'd never previously explored. Other times, however, the games are the product of a predetermined concept, with the designer acting as the instrument to transform the idea into a viable gaming experience.

Pre-planning gets the credit for **Quest For The Rings**, the most recent offering from the Odyssey braintrust. Taking a long, hard look at their programmable system, the Knoxville, Tenn., gamesmen decided the element that most obviously separated it from the competition is the monoplanar keyboard. This alpha-numeric data input device gives the O² a potential for programmability previously available only with microcomputer systems. The key word, though, was "potential". Aside from using that keyboard to choose the number of players and game option, none of the then-existing software made much use of this hardware "edge."

The release of **UFO** began to turn



Meet Odyssey's Lords of the Rings

things around. During each 'UFO' play session, the machine records the high score at the bottom of the playfield. The arcader's name can be typed in using the keyboard — a classic coin-op feature that had never before appeared on a home videogame.

Still, it was obvious that much more could be done with the keyboard. On that basis, Odyssey executives decided that the company would produce a trilogy of game programs of a much more sophisticated order, programs that would combine computer-level game

content with videogame-quality audio and graphics. The first offering would reflect the tremendous interest in adventure and fantasy gaming inspired by D&D. The second entry would be a classic war game involving air, naval and undersea combat. For the final program, Odyssey chose the topic of high finance, along the lines of **Monopoly** and **Acquire**. Finally, the games would add a further bit of texture by having action take place not only on the TV screen, but on special game boards packed with the cartridges.

To produce these revolutionary programs, Odyssey turned to two men with whose work they were intimately familiar. The videogame portion of the assignment went to Ed Averette, Jr., a veteran O² game designer responsible for many of the company's best cartridges. The other design element — including the game boards and special mylar sheets to cover the O² keyboard, simplifying input instructions — landed on the desk of Steve Laner. Ironically this company veteran designed the plastic screen overlays for the original Odyssey, the very first videogame system.

Steve and Ed had worked in tandem before, but for this grand project they pulled out all the stops. The major challenge was the successful integration of board and videogame.

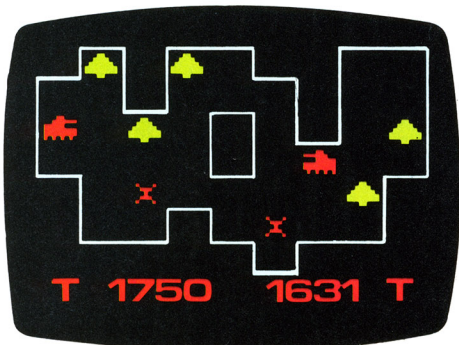
"I'm a games person," Laner cheerfully admits, "and naturally we're always looking for new ways to present electronic games. What we did with this game was to create a "loop" effect between the board and the computer elements. What happens in the board-game portion affects what occurs on the screen, and back and forth, creating a real synergy between the two."

"So far," Laner admits, "most of what's been done in this field is either an adaptation of an existing coin-op or a sports simulation. But I always felt we could get way beyond that."

Ed Averette, Jr. agrees. "We were floundering around, looking for a direction. In the combination of boardgame and videogame, we've found it."



Odyssey² designers Steve Laner, Ed Averette Jr. and design artist Ron Bradford combined to create the board/videogame hybrid, **QUEST FOR THE RINGS**



CONQUEST OF THE WORLD is a sophisticated war game

The team began work with a broad outline of the project. After toiling for nearly half a year on fine tuning, they had developed Laner's "loop", the interaction between board and playfield that feeds upon itself to create a brand new game experience, an electronic hybrid of the computer age.

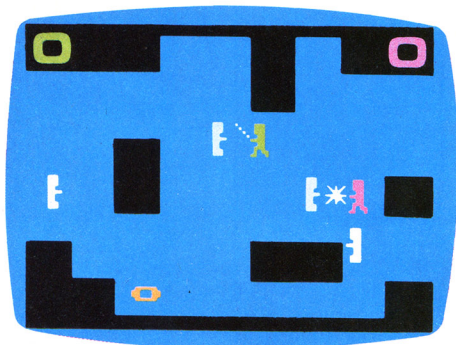
In "Quest for the Rings", a pair of adventurers journey over the countryside in search of the Ringmaster's ten mystical rings. When a dungeon is reached on the board, the action transports to the videogame screen, where gamers — in their roles as wizards, warriors, phantoms or changelings — do battle with realistically-rendered monsters and fire-breathing dragons in hopes of retrieving a magic ring. Averette designed a series of dungeons, each visually distinct, and his bevy of beasts is a triumph of computer animation.

Averette, who sometimes works with his wife Linda, wanted to produce a real senses-stunning videogame with graphics equal to, or better than, anything playable on even the more sophisticated computers. "In this game," he says with considerable pride, "the action is a lot more than just a roll of the dice."

As previously mentioned, "Quest for the Rings" was planned as the first part of a trilogy of classic game themes. Next up will be **Conquest of the World**, which will do for military strategy contests what "Quest" did with the fantasy adventure. Again wedding board and videogame components, actual tactical combat will be played out on screen, with the warring factions employing various combinations of tanks, battleships and submarines.

The last of the three games, tentatively titled **The Great Wall Street Fortune**

Hunt, is one of the most intriguing "money" games ever designed. Players participate in the Stock Exchange, buying selling and trading just as investors do on Wall Street. The video portion of the contest consists of a playfield sectioned into three horizontal segments. Across the top of the screen runs a stock ticker, listing prices and similar data. A news wire clacks along the middle portion of the playfield meanwhile, reporting news events — "Unrest in the Middle East..." "Merger reported..." and such — that might have an impact on the chameleonlike market. The bottom "window" monitors the gamer's personal portfolio. The machine constantly updates the holdings.



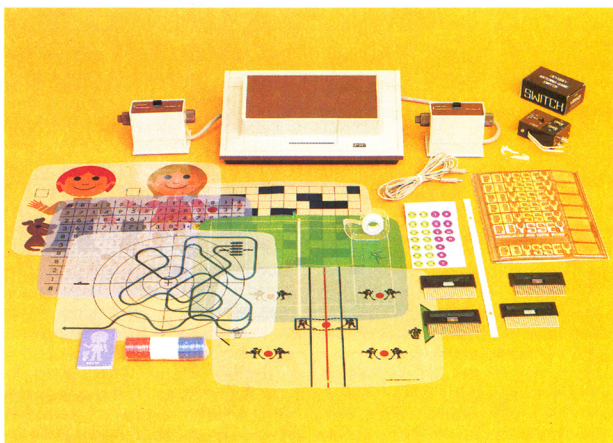
The videogame portion of QUEST FOR THE RINGS

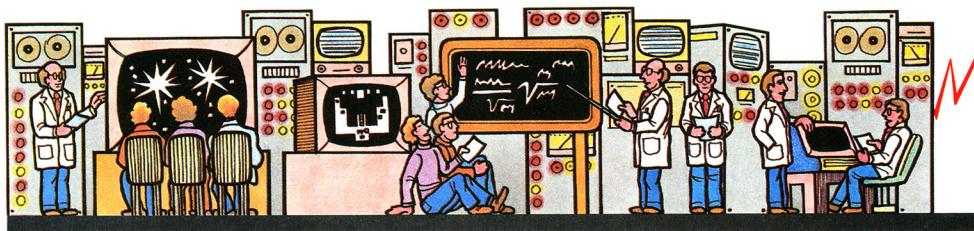
"We even brought in major consultants from the world of high finance to insure that this game is as realistic as possible," says Steve Laner.

The advent of these sophisticated entries signals a major new direction for the Odyssey² system. While the company will continue to offer arcade programs, as well as products designed specifically for young arcaders, the debut of this trilogy is bringing advanced simulation to programmable videogame systems for the first time. Their success or failure will have much to do with shaping the future of home videogame software for years to come.



The very first home videogame, Odyssey, used Laner-created transparent overlays in lieu of computer-generated graphics.





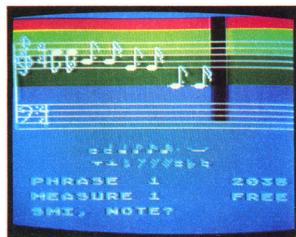
Having tasted unqualified success with its entries in the coin-op and programmable videogame markets, Atari turned its formidable expertise toward the logical next step: a true home computer/gaming system. The new product would be infinitely more flexible than their existing machines, because of its highly programmable nature.

Instead of producing only one system, Atari developed a pair of variations on a single theme, each pegged to a particular price-point: the Atari 400 and 800.

This month's "Test Lab" focuses on the smaller, and less expensive, of the two. It's the system that is rapidly becoming the darling of the computer gamers, the Atari 400.

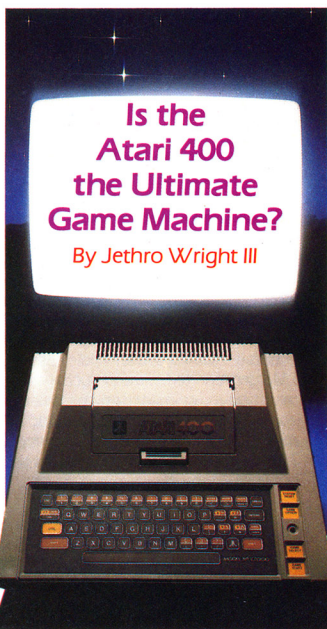
The unit is a simple integrated keyboard/CPU configuration with a single internal slot that accepts Atari's computer ROM cartridges. The other external features include four ports for standard Atari paddle or joystick controllers, a TV output with RF modulator and a multi-purpose interface that makes it simple to attach peripherals.

The keyboard is monoplanar. It uses 57 touch-actuated switches on a flat board. It has no moving parts and is sealed to resist contamination. Translation: it ignores moderate amounts of ice cream, coffee and other substances that



MUSIC COMPOSER

are ordinarily fatal to computers. The computer makes a click to signify a successful keystroke. While this sort of data



ATARI 400

input board is quite adequate for the needs of computer gamers, it will almost certainly discourage anyone from attempting to do any serious programming.

The 400 also features a quartet of function switches and an on/off indicator light at the far right end of the console. These buttons govern system reset, option, select and start. They are, of course, used primarily when playing games.

The multi-function port is a 13-pin connector, located next to the power switch on the right side of the machine. Through this port, the Atari 400 can ac-

cess a printer, cassette player, disk drive or an Atari 850 interface module. (The 850 is used much like an audio mixer to contain several such peripherals at once.) Actually, the machine can access either two disk drives or a disk/cassette team-up through a simple daisy-chaining procedure: The primary drive is attached to the port, and the cassette or second drive is then plugged into the back of the first disk. This is especially useful when transferring programs from tape to disk.

Since the Atari 400 falls into the category of computers oriented for use in the home, the manufacturer had no intention of providing for memory expansion beyond the now-standard 16K. Several companies are already offering upgrade boards that will take it up to 32K. Therefore, should you desire to put more byte in you 400, a Phillips screwdriver attached to a capable arm can easily strip it down to board level in less than 10 minutes and do the conversion.

Once inside the housing, there are only 30 IC's, including the 6502 CPU, various I/O controllers and memory. The chips are distributed among a CPU card (closest to the rear), a 16K-byte memory card, and a motherboard to accommodate the aforementioned PC boards and the I/O circuitry.

At this level, I have two comments:

1. The CPU and memory boards should be keyed to prevent incorrect insertion. Horror stories about upgrade boards installed backwards are legendary in Atari 400 circles.

2. The speaker that produces the audible beep when typing and the CLOAD indicator could be mounted more securely. It is positively unnerving to hear it rattling around inside the console.

As a total system, the Atari 400 is most impressive for its price. \$399, suggested

TEST LAB

retail. With the option of using up to four joysticks (or an almost unbelievable eight paddles!), excellent graphics capabilities (including certain modes that allow selection from a palette of 64 colors) and a sound-through-the-TV generator, the Atari 400 serves as an excellent foundation for a home gaming system.

For programmers and gamers alike,

introduction to computing.

Although the Atari 400 lacks the 800's full-stroke keyboard and modular expandability, it embodies many elements that make it a fine home arcade

machine.

Judging by its rapid acceptance by consumers, a lot of electronic gamers evidently share this opinion.



Atari 400 at a Glance

Price: \$399.00
Weight: 534 lbs.
Dimensions: 4½ in. x 13½ in. x 11½ in.
Microprocessor: 6502
Color: 128 (16 colors at eight intensities each)
Sound: Four voices; four independent sound synthesizers; four octaves with variable volume and tone; independent speaker plus sound through the TV.
Keyboard: Monoplanar (touch-activated flat switches)

ROM: 10K bytes
RAM: 16K bytes
Programming languages: BASIC, Pilot and Assembler.
Monitor: Television set with RF included.
Games: (From Atari): **Star Raiders**, **Basketball**, **Space Invaders**, **Asteroids**, **Missile Command**, **3-D Tic-Tac-Toe**, **Computer Chess**, **Video Easel** and **Music Composer** (assigns musical tones to keyboard).



Atari offers its BASIC cartridge. This dialect of the most popular computer language is similar to other versions, with extensions designed for use in a gaming environment.

Of particular interest in this regard is the concept of player-missile graphics. This provides the programmer with a simple interface for the development of game programs. Principal features of player/missile graphics include:

- Independent control of one to four joysticks
- Flexible manipulation of player objects such as player tokens and missiles on the screen, including user-selected foreground and background color options for these objects.

The Atari BASIC Reference Manual, one of the earliest items the company released, could stand some real improvement in the explanation and clarification of various keywords and their options. On the other hand, the Atari BASIC instruction Manual is a hefty tome that is far better suited to owners needing a real

Auxiliary Storage: Devices used for saving programs when the system itself is turned off. Since RAM loses its contents when the machine is powered down and ROM can only be programmed by the factory, auxiliary storage keeps programs between operating sessions. It can't be used instead of RAM or ROM, however, since it doesn't operate as fast as the CPU.

CPU: Central Processing Unit. This is the microprocessor—or electronic brain, if you will—that lies at the heart of every computer.

Disk Drive: An auxiliary storage device that works like a cross between a phonograph and a cassette recorder. By using plastic disks coated with a magnetic surface, such drives are faster and more reliable than cassette storage.

Interface: The part of the computer that permits the attachment of peripheral devices. These include cassette

recorders, joysticks and a connection for a TV set or monitor.

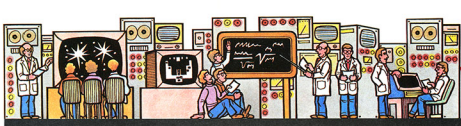
Modem: Modulator-demodulator. A piece of equipment that allows computers to communicate with each other over telephone lines.

Interpreter: This translates programs from human-readable form into a series of codes the computer can understand. This makes using a computer a lot simpler for first-time programmers.

RAM: Random Access Memory. This is the internal memory the computer actually uses when running a program. It can be revised or read an infinite number of times.

ROM: Read Only Memory. This type of memory is also internal to the system, but it cannot be altered by the computer operator. Its contents are fixed at the factory and can't be changed. Most computer games bought in ready-to-play form fall into this category. ★

computer glossary



TEST LAB

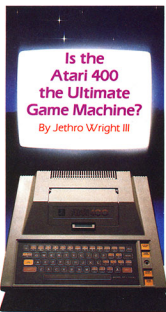
Having tasted unqualified success with its entries in the coin-up and programmable videogame markets, Atari turned its formidable expertise toward the logical next step: a true-home computer/gaming system. The new product would be infinitely more flexible than their existing machines, because of its highly programmable nature.

Instead of producing only one system, Atari developed a pair of variations on a single theme, each pegged to a particular price-point: the Atari 400 and 800.

This month's "Test Lab" focuses on the smaller, and less expensive, of the two. It's the system that's rapidly becoming the darling of the computer gamers, the Atari 400.

The unit is a simple integrated keyboard/CPU configuration with a single internal slot that accepts Atari's computer ROM cartridges. The other external features include four ports for standard Atari paddle or joystick controllers, a TV output with RF modulator and a multipurpose interface that makes it simple to attach peripherals.

The keyboard is monoplanner. It uses 57 touch-actuated switches on a flat board. It has no moving parts and is sealed to resist contamination. Translation: it ignores moderate amounts of ice cream, coffee and/or other substances that



are ordinarily fatal to computers. The computer makes a click to signify a successful keystroke. While this sort of data

input board is quite adequate for the needs of computer gamers, it will almost certainly discourage anyone from attempting to do any serious programming.

The 400 also features a quartet of function switches and an on/off indicator light at the far right end of the console. These buttons govern system reset, option, select and start. They are, of course, used primarily when playing games.

The multi-function port is a 13-pin connector, located next to the power switch on the right side of the machine. Through this port, the Atari 400 can ac-

cess a printer, cassette player, disk drive or an Atari 850 interface module. (The 850 is used much like an audio mixer to contain several such peripherals at once.) Actually, the machine can access either two disk drives or a disk/cassette team-up through a simple daisy-chaining procedure: The primary drive is attached to the port, and the cassette or second drive is then plugged into the back of the first disk. This is especially useful when transferring programs from tape to disk.

Since the Atari 400 falls into the category of computers oriented for use in the home, the manufacturer had no intention of providing for memory expansion beyond the now-standard 16K. Several companies are already offering upgrade boards that will take it up to 32K. Therefore, should you desire to put more byte in your 400, a Philips screwdriver attached to a capable arm can easily slip it down to board level in less than 10 minutes and do the conversion.

Once inside the housing, there are only 30 IC's, including the 6502 CPU, various I/O controllers and memory. The chips are distributed among a CPU card (closest to the rear), a 16K-byte memory card, and a motherboard to accommodate the aforementioned PC boards and the I/O circuitry.

At this level, I have two comments: 1. The CPU and memory boards should be kept to prevent incorrect insertion. Horror stories about upgrade boards installed backwards are legendary in Atari 400 circles.

2. The speaker that produces the audible beep when typing and the CLOAD indicator could be mounted more securely. It is positively unerving to hear it rattling around inside the console.

As a total system, the Atari 400 is most impressive for its price. \$399, suggested

retail. With the option of using up to four joysticks (or an almost unbelievable eight paddles!), excellent graphics capabilities (including certain modes that allow selection from a palette of 64 colors) and a sound-through-the-TV generator, the Atari 400 serves as an excellent foundation for a home gaming system.

For programmers and gamers alike,



Atari offers its BASIC cartridge. This dialect of the most popular computer language is similar to other versions, with extensions designed for use in a gaming environment.

Of particular interest in this regard is the concept of player-missile graphics. This provides the programmer with a simple interface for the development of game programs. Principal features of player/missile graphics include:

- Independent control of one to four joysticks
- Flexible manipulation of player objects such as player tokens and missiles on the screen, including user-selected foreground and background color options for these objects.

The Atari BASIC Reference Manual, one of the earliest items the company released, could stand some real improvement in the explanation and clarification of various keywords and their options.

On the other hand, the Atari BASIC instruction Manual is a hefty tome that is far better suited to owners needing a real

introduction to computing.

Although the Atari 400 lacks the 800's full-stroke keyboard and modular expandability, it embodies many elements that make it a fine home arcade

machine.

Judging by its rapid acceptance by consumers, a lot of electronic gamers evidently share this opinion.

Atari 400 at a Glance

Price: \$399.00

Weight: 5.8 lbs.

Dimensions: 4 1/2 in. x 13 1/2 in. x 11 1/2 in.

Microprocessor: 6502

Color: 128 1/6 colors at eight intensities each

Sound: Four voices, four independent sound synthesizers; four octaves with variable volume and tone; independent speaker plus sound through the TV.

Keyboard: Monoplanner (touch-actuated flat switches)

ROM: 16K bytes

RAM: 16K bytes

Programming languages: BASIC, Pilot and Assembler.

Monitor: Television set with RF included.

Games: (From Atari) Star Raiders, Basketball, Space Invaders, Asteroids, Missile Command, 3-D Tic-Tac-Toe, Computer Chess, Video Easel and Music Composer (assigns musical tones to keyboard).

Computer glossary

Auxiliary Storage: Devices used for saving programs when the system itself is turned off. Since RAM loses its contents when the machine is powered down and ROM can only be programmed by the factory, auxiliary storage keeps programs between operating sessions. It can be used instead of RAM or ROM, however, since it doesn't operate as fast as the CPU.

CPU: Central Processing Unit. This is the microprocessor—or electronic brain, if you will—that lies at the heart of every computer.

Disk Drive: An auxiliary storage device that works like a cross between a phonograph and a cassette recorder. By using plastic disks coated with a magnetic surface, such drives are faster and more reliable than cassette storage.

Interface: The part of the computer that permits the attachment of peripheral devices. These include cassette

recorders, joysticks and a connection for a TV set or monitor.

Modem: Modulator-demodulator. A piece of equipment that allows computers to communicate with each other over telephone lines.

Interpreter: This translates programs from human-readable form into a series of codes the computer can understand. This makes using a computer a lot simpler for first-time programmers.

RAM: Random Access Memory. This is the internal memory the computer actually uses when running a program. It can be revised or read an infinite number of times.

ROM: Read Only Memory. This type of memory is also internal to the system, but it cannot be altered by the computer operator. Its contents are fixed at the factory and can't be changed. Most computer games bought in ready-to-play form fall into this category.

Castle Park: Game Parlor First Class

Experienced arcaders — those who can recall the bad old days of dingy, dirty and faintly disreputable establishments — may think they're dreaming if they're ever lucky enough to visit Castle Park in Riverside, Cal. Passing through the portals of this beautiful castle into a hall filled with the sights and sounds of 300 coin-op wonder-machines is an instant voyage to videogaming's version of Fantasy Island.

This 17,000-sq. ft. amusement center presents its wares with rare style, symbolized by the three Austrian crystal chandeliers that bathe the playing areas with glittering light.

While patrons will always find the newest commercial arcading hits here, Castle Park pays homage to the hobby's past with a selection of extremely rare collector's pieces that date from the earliest penny arcades. And gamers who want something just a trifle more athletic can chose from among four electronically enhanced miniature golf courses.

The more prominent attractions aside, manager Tom Guagliardo has endowed Castle Park with distinctive little flourishes that raise it above the run-of-the-mill amusement center. Little scenes, like a tiny Darth Vader dueling with an equally miniscule Ben Kenobi atop a **Warlords**, are everywhere. Multi-colored chaser lights, animated racehorses and similar



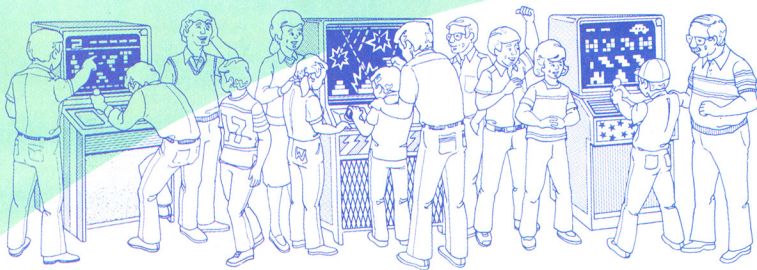
sights keep gamers goggle-eyed when they're not busy saving the Earth from some form of extraterrestrial attack.

Games are grouped according to type in special areas around the split-level layout. The billiard room is highlighted by an enormous gold crown and light

fixture hanging from the ceiling. An exotic canopy covers the line-up of pinball machines. A Leggo-style stairway leads down into a "foosball" pit. There's even an area exclusively devoted to rifle-shooting coin-ops.

Videogames are, of course, the main

ARCADE





attraction. It's hard to imagine a more comfortable and inviting place in which to gobble goblins, blast asteroids and steer video racers through their paces.

One thing hardcore players like is that the most popular titles, like **Asteroids**, are available in rows. There's seldom a

wait for a favorite machine.

Guagliardo has gone to considerable lengths to ensure that things don't get out of hand and ruin the fun-and-games atmosphere. Castle Park is very much a family arcade, an environment so wholesome that parents frequently drop

their children off while they do the marketing. It maintains a security staff of 12 private police officers and two armed guards. And to prevent players from experiencing the frustration of popping a quarter into a malfunctioning game, Castle Park shuts down once a week for thorough maintenance.

This is one place that never rests on its laurels, never stops expanding. Currently under construction at this space-age pleasure dome is a dungeon to serve as an appropriate setting for such popular titles as **Venture** (Exidy) and **Wizard of Wor** (Midway). These and other fantasy machines should feel right at home among the chains and dragons.

So whatever your taste in arcade games, whether you like pinball machines, pool tables, videogames, air hockey or any of the other varieties of arcade device, they're available.

And for arcade antiquarians, there's that museum. It has fun house distortion mirrors and even a perfectly preserved — and functioning — fortune telling machine. This 8 ft. x 3 ft. glass-enclosed rarity was one of the very earliest electronic arcade amusements. It features an automaton-seer complete with a colorful bandana and, naturally, the gift of prophecy. The 11 golden oldies, Guagliardo maintains, often draw more attention than the state-of-the-art units.

It's a safe bet, however, that Guagliardo will have no need of a fortune telling machine to ascertain Castle Park's future.



SPOTLIGHT



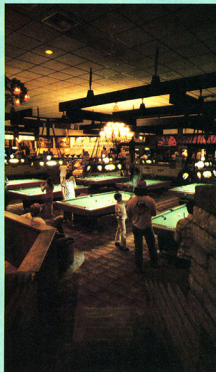
Castle Park: Game Parlor First Class

Experienced arcaders — those who can recall the bad old days of dingy, dirty and faintly disreputable establishments — may think they're dreaming if they're ever lucky enough to visit Castle Park in Riverside, Cal. Passing through the portals of this beautiful castle into a hall filled with the sights and sounds of 300 coin-op wonder-machines is an instant voyage to videogaming's version of Fantasy Island.

This 17,000-sq. ft. amusement center presents its wares with rare style, symbolized by the three Austrian crystal chandeliers that bathe the playing areas with glittering light.

While patrons will always find the newest commercial arcading hits here, Castle Park pays homage to the hobby's past with a selection of extremely rare collector's pieces that date from the earliest penny arcades. And gamers who want something just a trifle more athletic can choose from among four electronically enhanced miniature golf courses.

The more prominent attractions aside, manager Tom Guagliardo has endowed Castle Park with distinctive little flourishes that raise it above the run-of-the-mill amusement center. Little scenes, like a tiny Darth Vader dueling with an equally minuscule Ben Kenobi atop a **Warlords**, are everywhere. Multi-colored chaser lights, animated racehorses and similar



sights keep gamers goggle-eyed when they're not busy saving the Earth from some form of extraterrestrial attack.

Games are grouped according to type in special areas around the split-level layout. The billiard room is highlighted by an enormous gold crown and light

fixture hanging from the ceiling. An exotic canopy covers the line-up of pinball machines. A Leggo-style stairway leads down into a "foosball" pit. There's even an area exclusively devoted to rifle-shooting coin-ops.

Videogames are, of course, the main

attraction. It's hard to imagine a more comfortable and inviting place in which to gobble gobblins, blast asteroids and steer video racers through their paces.

One thing hardcore players like is that the most popular titles, like **Asteroids**, are available in rows. There's seldom a

wait for a favorite machine.

Guagliardo has gone to considerable lengths to ensure that things don't get out of hand and ruin the fun-and-games atmosphere. Castle Park is very much a family arcade, an environment so wholesome that parents frequently drop

their children off while they do the marketing. It maintains a security staff of 12 private police officers and two armed guards. And to prevent players from experiencing the frustration of popping a quarter into a malfunctioning game, Castle Park shuts down once a week for thorough maintenance.

This is one place that never rests on its laurels, never stops expanding. Currently under construction at this space-age pleasure dome is a dungeon to serve as an appropriate setting for such popular titles as **Venture** [Exidy] and **Wizard of Wor** [Midway]. These and other fantasy machines should feel right at home among the chains and dragons.

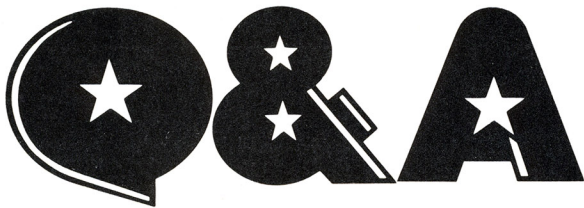
So whatever your taste in arcade games, whether you like pinball machines, pool tables, videogames, air hockey or any of the other varieties of arcade device, they're available.

And for arcade antiquarians, there's that museum. It has fun house distortion mirrors and even a perfectly preserved — and functioning — fortune telling machine. This 8 ft. x 3 ft. glass-enclosed rarity was one of the very earliest electronic arcade amusements. It features an automaton-seer complete with a colorful bandana and, naturally, the gift of prophecy. The 11 golden oides, Guagliardo maintains, often draw more attention than the state-of-the-art units.

It's a safe bet, however, that Guagliardo will have no need of a fortune telling machine to ascertain Castle Park's future.

ARCADE SPOTLIGHT





By the Game Doctor

The Doctor is in. Last issue's offer of a free **Electronic Games** t-shirt to the reader who sends in the best question each issue is already starting to bear fruit. The Doctor's mailbox is getting pleasingly full. This is your chance to be the envy of all the other arcaders in your social set — and at the same time get the answer to whatever electronic gaming problem is bugging you.

Let's lead off this month's questions with the shirt-winning submission from Robert Webber of Glendale, N.Y.

Q: Why do some videogame companies like Atari make systems with detachable controllers, while others like Odyssey and Mattel hard-wire them right into the console. What are the advantages and disadvantages of each? (From Robert Webber, Glendale, N.Y.)

A: Since the Atari Video Computer System (VCS) can use four different controllers — joystick, paddle, keypad and steering-wheel paddle — to play games, a method utilizing interchangeable plug-ins is an obvious necessity.

All games designed for the other two major videogame systems, on the other hand, share the use of the same input device. Since bending the prongs of the multi-pin plugs when pushing them into and pulling them out of the jacks is a prime source of damage to controllers, Odyssey and Mattel elected to permanently attach the controllers to the consoles.

Unfortunately, plugging and unplugging isn't the only way to break a controller. Sometimes, for example, the centering springs on joysticks wear out after a lot of hard gaming. This can cause drifting of the on-screen image. And when a wired-in controller breaks, that means the entire system has to be crated up and taken or mailed to the repair shop.

Q: In reference to your review of **Star Raiders** for the Atari 400/800, I

am turning to you for some advice. I own an Apple II Plus, not an Atari, and I'd like to know which of the currently available programs for my computer would be most like that Atari space game? (From Phillip Randall, Boca Raton, Fla.)

A: The old Game Doctor went out and examined the pick of the Apple soft-

ware screen, so I've stopped playing them until I get the word from you. Should I be concerned? (From Ray Givens, Staten Island, N.Y.)

A: Relax, Ray, it's safe to take those Activision cartridges out of the closet and start using them again. The tiny "Activision" trademark that appears on all of the company's playfields actually does change color. It just takes a little longer than the rest of the field to get started, that's all.

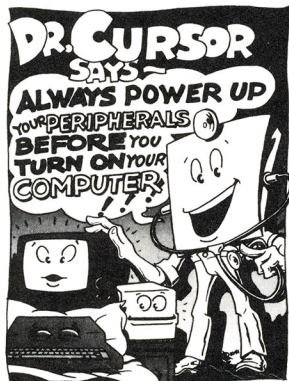
But if you don't trust the Doctor, Ray, it's easy enough to check out for yourself. A few minutes after the rest of an Activision playfield starts to do the dance-of-the-colors, the trademark will begin its colorshifting routine as well.

Q: My TV set has a digital channel selector. Sometimes when I switch to the "open channel" in my area, the videogame playfield comes in distorted and colorless. Other times, it's just fine. What can I do? (From Paula Watts, Shawnee, Okla.)

A: The hang-up probably comes from the lack of a manual fine-tuning knob on your set. Try this method: First tune in the channel that gives you the clearest and sharpest signal. Then set up the videogame system, insert the desired cartridge and switch on the game console. Finally, switch to the "open channel", and the automatic fine tuning should provide you with a clear, sharp picture.

Q: I have heard recently that a 'Pac Man' type game will be available soon for the Atari VCS. Is this true? If so, when will it be available? (from Cheri Robinson, Pittsburgh, Pa.)

A: You heard correctly, Cheri, however Atari's game will not be a "Pac Man" type program, but rather the original gobble himself. Atari went on a coin-op buying spree in 1981, picking up the lucrative home rights to such hit arcade games as **Defender**, **Galaxian**,



ware orchard to find out which program comes closest to duplicating the action that has made **Star Raiders** an instant hit. The closest match, at least in my opinion, is **Space Raiders** from United Software of America. If it isn't the Atari game's long-lost twin, it's at least a kissing cousin.

Q: You explained in **Electronic Games**' first issue how the old-fashioned videogames sometimes left an after-image on TV screens, because the playfields never moved or changed colors. When I was looking at some Activision games recently, I noticed that the company logo is featured on-screen for every one of their cartridges. The name "Activision" never seems to move, and when the rest of the playfield starts color-shifting, it stays white. I don't want any company's name etched permanently onto my televi-

continued on page 53

ON YOUR MARK, GET SET, MUNCH.



With new K.C. Munchkin from Odyssey²,
you don't destroy your enemies, you simply eat them.



Simulated TV picture.

How many Munchies can your Munchkin munch before your Munchkin's all munched out? Play K.C. Munchkin and see!

It's fun. It's exciting. It's challenging. Your whole family will love it!

A Munchkin, three Munchies and 12 Munchies float in a maze with a rotating center. The more Munchies your Munchkin munches, the more points you get. The more points, the faster the computer makes the game go. And the more skill you need to score and to keep your Munchkin from getting munched by one of the Munchers!

The better you play, the greater the challenge!

Program your own mazes.

Use the Odyssey² keyboard... there's virtually no limit to the number of mazes you can create. There are even invisible mazes for when you're ready to turn pro.

Choose from more than 40 arcade, sports, education and new Master Strategy™ games, from Odyssey². They're waiting for you now at your video games or Odyssey² dealer.

Odyssey²... video game fun, computer keyboard challenge. All for the price of an ordinary video game.

© 1982 N.A.P. CONSUMER ELECTRONICS CORP.
A NORTH AMERICAN PHILIPS COMPANY



The excitement of a game.
The mind of a computer.

IS IT YOUR BEST BUY IN VIDEO GAMES?

DECIDE FOR YOURSELF

"If you're interested in an inexpensive video game, compare: Odyssey² has better hand controllers... comes with an alphanumeric keyboard..."
(GAMES MAGAZINE)

MAIN UNIT VALUE — With Odyssey², you get a basic game keyboard unit plus two hand controls (joysticks) with action buttons plus a starter cartridge with three different games. There are no hidden costs for extra hand controls or a keyboard attachment. More cartridges — which add new games — are the only extras. And Odyssey² can be easily attached to any black-and-white or color TV without fear of damage to the screen.

Next, compare the Odyssey² keyboard itself. It is a complete alphabet and number unit with 49 characters for sophisticated game playing. The keyboard is used to play some game cartridges and to program different game variations, time limits and skill levels.

One popular competitive video game doesn't have a full alphabet and number keyboard available for its comparably

priced system; another popular brand offers a keyboard, but only at a very high extra cost.

Don't overlook the hand-control joysticks, either. Odyssey² joysticks are excellent in their smooth, easy operation.

They also have eight slotted control positions so you always know exactly in which position you'll be going when you push the joystick.

And, to emphasize again, Odyssey² comes complete with the hand controls and keyboard for playing all available cartridges. Some competitive games require you to purchase additional sets of controls to play some of their games!

GAME SELECTION — Odyssey² offers over 40 games with new ones regularly being introduced (see the back cover for full listing). This is about the same number of games as from one other game manufacturer and about twice the number as from another. Also, only Odyssey² offers board/strategy games where you set up the strategy on the game board and play out the action on the screen.

Don't take just our word for Odyssey² value. Read what experts, owners, educators and students say. And, most important, compare feature by feature, side by side, with other leading brands at your video games dealer's. You'll see why we say that Odyssey² has the excitement of a game, the mind of a computer — all for the price of an ordinary video game.

STARTER CARTRIDGE WITH THREE GAMES

ACTION BUTTON

JOYSTICK

SPECIAL FUNCTION KEYS

FULLY COMPUTERIZED TYPEWRITER-LIKE KEYBOARD CONTROLS FOR ALL GAMES

WHAT THE EXPERTS SAY ABOUT THE ODYSSEY² MAIN UNIT:

"BEST VALUE IN ITS PRICE CLASS" "The company has evidently labored long and hard to create a truly outstanding state-of-the-art home video arcade. In fact, this machine may well be the best value in its price class..." (VIDEO)

"HAND CONTROLLERS ... BEST ON THE MARKET" "The hand controllers for the action games are very well designed,

too — perhaps the best on the market." (VIDEO REVIEW)

"Odyssey² game unit's main selling point, I believe, is its joystick which is probably the **easiest to maneuver of all the control units for home video games** ... I cannot emphasize enough how important this difference is." (VIDEO ACTION)

"KEYBOARD ... REQUIRES ONLY A LIGHT TOUCH TO OPERATE" "The built-in alphanumeric keyboard is of a durable monoplane design that requires only a light touch to operate." (VIDEO REVIEW)

"The Odyssey² console, which features a full monoplane keyboard, is **very attractive — yet rugged enough** to stand up under regular play." (VIDEO)

WHAT THE EXPERTS SAY ABOUT ODYSSEY² GAME CARTRIDGES:

"The SPEEDWAY/SPIN-OUT/CRYPTO-LOGIC game comes packed with the Odyssey² and is a good showcase for the machine's capabilities. The trio of contests provides a pleasing variety of action well calculated to whet the arcade addict's appetite for more..." (VIDEO)

THE QUEST FOR THE RINGS, rated most innovative game in VIDEO Magazine's 3rd Annual Arcade Awards: "Odyssey² designers have charted a bold new path for video games by blending the on-screen action with aspects of the traditional boardgame ... This brilliant synthesis enriches QUEST with more depth, detail and complexity than any previous cartridge for this — or any other — programmable videogame system." (VIDEO)

"QUEST FOR THE RINGS is a giant step ahead of other video games in richness and complexity." (ELECTRONIC GAMES)

UFO, rated best science fiction game in VIDEO Magazine's 3rd Annual Arcade Awards: "Odyssey² designers have

always had a special affinity for science fiction themes, and this cartridge is definitely one of their greatest triumphs." (VIDEO)

"UFO is one of the best games in the entire Odyssey² library and seems **destined to become something of a video game classic.** This is a 'must buy' for every Odyssey² owner." (ELECTRONIC GAMES)

"WAR OF NERVES ... Absolutely first-class video and audio effects further distinguish this outstanding game ... This is without a doubt one of the most entertaining arcade games yet produced ..." (VIDEO)

"BASEBALL is the closest thing to the national pastime ever offered to home video game enthusiasts." (VIDEO)

"FOOTBALL is a visually exciting and generally successful attempt to do something pretty challenging ... certainly an excellent game ..." (VIDEO)

"ALIEN INVADERS-PLUS! is the most difficult video game I have ever encountered —

bar none, and that includes the larger and sometimes more sophisticated games one encounters in game rooms and saloons ... ALIEN INVADERS-PLUS gets this reviewer's unqualified nomination for the most captivating video game around." (VIDEO ACTION)

"OUT OF THIS WORLD is a colorful and entertaining lunar-lander game that should be perfect for novices who might find other Odyssey² space games too demanding. It's also an ideal way to introduce younger brothers and sisters to the joys of home arcing ... This cartridge has an extra bonus in the form of a second game, HELICOPTER RESCUE. It's a race against the clock to save people from a doomed skyscraper, enhanced by colorful graphics that will keep youngsters entertained for hours." (VIDEO)

"AN INCREDIBLE NUMBER AND VARIETY OF GAMES" "Among Odyssey²'s special features are, to put it simply, an incredible number and variety of games!" (WHERE)

WHAT ODYSSEY² OWNERS SAY:

"(Odyssey²'s) capabilities are beyond its price range! I purchased the Odyssey² in November 1979, and have enjoyed its video game-fare along with the rest of the neighborhood. Since then, four other families have bought the Odyssey² system."

"Lately, Odyssey² has made so many

great cartridges to choose from. I just bought the newest one, THE QUEST FOR THE RINGS. I have never seen such a game with so much excitement. I think the keyboard overlay is a great idea ... Thanks a lot for making my Odyssey² into something I never thought it would be!"

"I am an avid fan of your Odyssey² video

game. I feel that your games are top quality and the competition just doesn't stand up to your standards."

"We have recently purchased an Odyssey² video game and would like to say how pleased we are with it. Everyone is enjoying the challenge and fun it offers."

WHAT EDUCATORS AND STUDENTS SAY:

"These games have a great potential for youngsters learning mathematics, logic and spelling."

"Wonderful motivation! The kids will work

much longer and much harder to play on Odyssey²."

"The study habits (of one of my students) have been extremely poor since first grade and I have had little luck in motivating him to do math work ... until I

began using Odyssey² with him. I was astonished at the results."

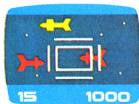
"**Buzzword** helps me spell words I never learned before."

OVER 40 GAMES AVAILABLE

VIDEO GAME FUN — COMPUTER KEYBOARD CHALLENGE

Favorite arcade, sports, educational, and strategic games are available with Odyssey². Exciting new ones are on the way. Some cartridges offer two or more different games, plus a choice of skill levels, time limits, and number of players. There's so much variety, you'll never get tired of playing Odyssey².

ARCADE



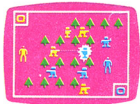
Cosmic Conflict
9421



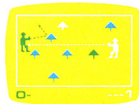
Invaders from Hyperspace
9424



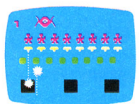
Thunderball
9425



War of Nerves
9427



Showdown in 2100 A.D.
9416



Allen Invaders-Plus
9428



Armored Encounter
9403



Subchase



THE EXCITEMENT OF A GAME, THE MIND OF A COMPUTER



Helicopter Rescue
9419



Out of this World



Pachinko
9425



Casino Slot Machine
9426



Speedway



Spin-Out
9400



Crypto-Logic



Take the Money and Run
9412



Blockout
9427



Breakdown



K.C. Munchkin
9435



Monkeyshines
9432



UFO
9430

SPORTS



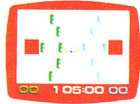
Baseball
9408



Bowling
9404



Basketball



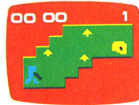
Hockey
9420



Soccer
9424



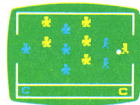
Football
9402



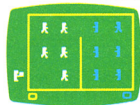
Computer Golf
9410



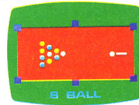
Alpine Skiing
9418



Electronic Table Soccer
9423



Volleyball
9422



Pocket Billiards
9424

EDUCATION



I've Got Your Number
9413



Matchmaker
9414



Logix
9407



Buzzword

STRATEGIC GAMES



The Quest for the Rings
9429



Conquest of the World
9431



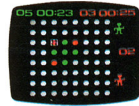
Math-A-Magic
9405



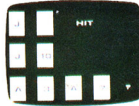
Echo



Computer Intro
9406



Dynasty
9421



Las Vegas Blackjack
9401



HERE'S HOW TO
SUBSCRIBE TO
**electronic
GAMES**
Magazine

... And enjoy previews of all the newest, best, most challenging games! Reviews of the latest equipment—from your point of view as a player! Valuable gaming strategy that can make you a better player! Guided tours of the most exciting commercial arcades! Entertaining features on all aspects of electronic gaming! And much more!

ELECTRONIC GAMES is the first—and only—magazine devoted exclusively to playing videogames, computer games, stand-alone games, and arcade games. To start home delivery, insure that you don't miss a single issue because of newsstand sell-outs, and save over 15% on the single-copy cost at newsstands, just fill out and mail the order card you'll find in this issue. (If the order card is missing or has already been used by a friend, cut out and mail the coupon below.)

Subscribe today and save!
6 issues—just \$15.00



----- Use this coupon if **ELECTRONIC GAMES** order card is missing -----

Mail to: **ELECTRONIC GAMES**
Subscription Department
P.O. Box 1128
Dover, New Jersey 07801

YES! I want to subscribe to ELECTRONIC GAMES!

- Send me 6 issues for \$15.00 (I save \$2.70 on the newsstand cost)
 Increase my savings! Send me 12 issues for \$28.00 (I save \$7.40)

Name _____ (please print)

Address _____

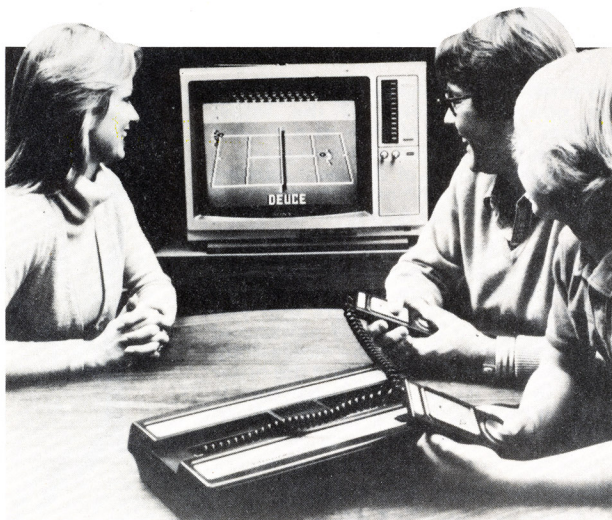
City _____ State _____ Zip _____

Enclosed is my payment of _____ Bill me later

For Canada: 6 issues, \$17; 12 issues, \$32. Please allow up to 60 days for delivery of first issue.

822023

A DECADE OF VIDEO



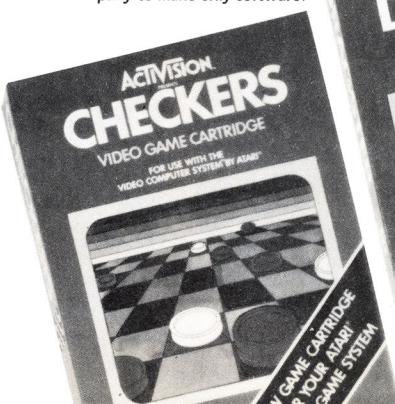
The Master Component to Mattel's Intellivision offers keypad controllers and super graphics

A Decade of Programmable Videogames

Like a vain woman who covers tell-tale wrinkles with tons of make-up, electronic games consistently fib about their age. True, home systems have only been available since May, 1972, when Magnavox introduced the trailblazing Odyssey, but folks have used computers to play games on television screens for closer to 20 years than 10.

In 1962, Steve Russell, a graduate student at M.I.T., decided it would be great fun to create an entertainment program he could run on one of the school's

Activision, the first company to make only software.



mainframe computers. Inspired by the futuristic nature of the technology with which he worked, Russell cooked up a science fiction contest he dubbed **Spacewar**. His brainchild quickly acquired almost legendary status among programmers everywhere. It made a great change-of-pace after a hard day of working with business and scientific software.

Two of the game's biggest fans were a couple of fellow M.I.T. students, Bill Pitts and Nolan Bushnell. Impressed with the potential and quality of 'Spacewar,' each set out independently to create a commercially viable version of Russell's classic. Bushnell completed his, **Computer Space**, shortly before Pitts put the finishing touches on **Galaxy Game**. Neither proved successful.

Bushnell was not ready to give up the idea. He became convinced that 'Computer Space' failed because its sophistication went over the heads of players who craved an electronic entertainment they

PROGRAMMABLE GAMES

could grasp instantly. Completely reversing his field, Bushnell plunged into the development of a much simpler program, a video version of ping pong.

Half a continent away, Ralph Baer had already started work on what he considered to be a rather obvious idea.

By 1971 the Magnavox Odyssey—the world's first videogame system for the home—was virtually completed. The Knoxville, Tenn., manufacturer

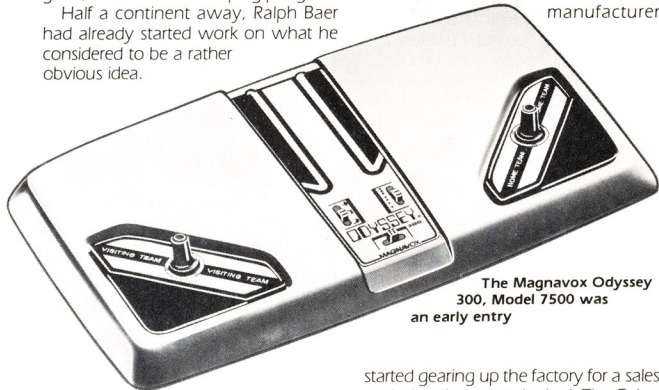
television sets.

- Promotion of the device was inadequate
- The unit suffered from Magnavox's failure to switch over to solidstate technology when the rest of the industry made the change.

Even so, Magnavox kept the faith. As the equipment continued to improve, the company issued a series of steadily more advanced videogames under the Odyssey imprint.

Nolan Bushnell, after much labor, developed a video ping pong that he felt sure would instantly appeal to players. He tested the game, **Pong**, in a Sunnyvale, Cal., tavern with great success. He built more 'Pong' machines, and it immediately became the hottest coin-op amusement item. It was easy to understand, a kick to play and a marvelous novelty. 'Pong' uprights began turning up in bars, bowling alleys and candy stores as well as the more traditional arcades.

It was at this point that the videogame concept branched off in two distinct directions. While Magnavox focused on



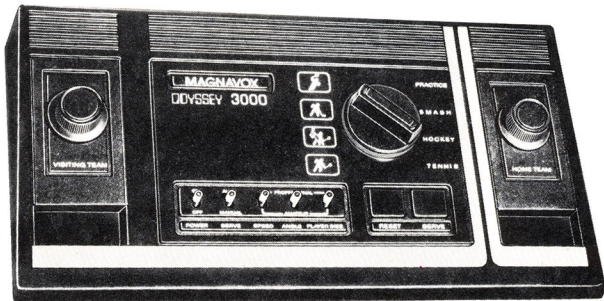
The Magnavox Odyssey 300, Model 7500 was an early entry

"The question of how to make use of home TV sets had been bothering me since the early sixties," Baer recalls. "The fact is that even back then there were 62 million T.V. homes—that's TV homes not TV sets. The idea of attaching some device to even a small fraction of that many sets was a pretty powerful incentive for coming up with something, anything, on which people might actually want to spend their money."

Baer's idea came to fruition in a tiny cubicle at Sanders Associates, where he worked as division manager for equipment design. Baer, Bill Harrison and Bill Busch had the only three keys to the top-secret research lab known as "the game room." The trio played prototypes of video ping pong and hockey games, with color and FM sound produced through the TV speaker, as early as 1967. (For posterity, the set they used was a 17-in. RCA color console.)

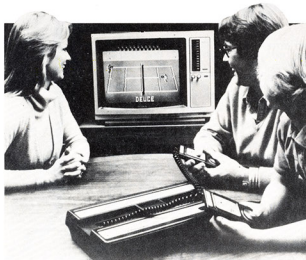
started gearing up the factory for a sales explosion that never ignited. The Odyssey failed to catch on for a variety of reasons:

- Some people incorrectly believed that the system was only compatible with Magnavox



The Mangavox Odyssey 3000, Model 7514 offered four game options including hockey and tennis

A DECADE OF VIDEO PROGRAMMABLE GAMES



The Master Component to Mattel's Intellivision offers keypad controllers and super graphics

mainframe computers. Inspired by the futuristic nature of the technology with which he worked, Russell cooked up a science fiction contest he dubbed **Spacewar**. His brainchild quickly acquired almost legendary status among programmers everywhere. It made a great change-of-pace after a hard day of working with business and scientific software.

Two of the game's biggest fans were a couple of fellow M.I.T. students, Bill Pitts and Nolan Bushnell. Impressed with the potential and quality of "Spacewar," each set out independently to create a commercially viable version of Russell's classic. Bushnell completed his, **Computer Space**, shortly before Pitts put the finishing touches on **Galaxy Game**. Neither proved successful.

Bushnell was not ready to give up the idea. He became convinced that "Computer Space" failed because its sophistication went over the heads of players who craved an electronic entertainment they

could grasp instantly. Completely reversing his field, Bushnell plunged into the development of a much simpler program, a video version of ping pong.

Half a continent away, Ralph Baer had already started work on what he considered to be a rather obvious idea.

By 1971 the Magnavox Odyssey—the world's first videogame system for the home—was virtually completed.

The Knoxville, Tenn., manufacturer



The Magnavox Odyssey 300, Model 7500 was an early entry

started gearing up the factory for a sales explosion that never ignited. The Odyssey failed to catch on for a variety of reasons:

- Some people incorrectly believed that the system was only compatible with Magnavox

television sets.

- Promotion of the device was inadequate

- The unit suffered from Magnavox's failure to switch over to solidstate technology when the rest of the industry made the change.

Even so, Magnavox kept the faith. As the equipment continued to improve, the company issued a series of steadily more advanced videogames under the Odyssey imprint.

Nolan Bushnell, after much labor, developed a video ping pong that he felt sure would instantly appeal to players. He tested the game, **Pong**, in a Sunnyvale, Cal., tavern with great success. He built more "Pong" machines, and it immediately became the hottest coin-op amusement item. It was easy to understand, a kick to play and a marvelous novelty. "Pong" uprights began turning up in bars, bowling alleys and candy stores as well as the more traditional arcades.

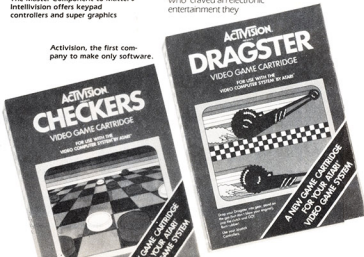
It was at this point that the videogame concept branched off in two distinct directions. While Magnavox focused on

A Decade of Programmable Videogames

Like a vain woman who covers tell-tale wrinkles with tons of make-up, electronic games consistently fib about their age. True, home systems have only been available since May, 1972, when Magnavox introduced the trailblazing Odyssey, but folks have used computers to play games on television screens for closer to 20 years than 10.

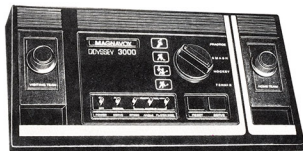
In 1962, Steve Russell, a graduate student at M.I.T., decided it would be great fun to create an entertainment program he could run on one of the school's

Activision, the first company to make only software.



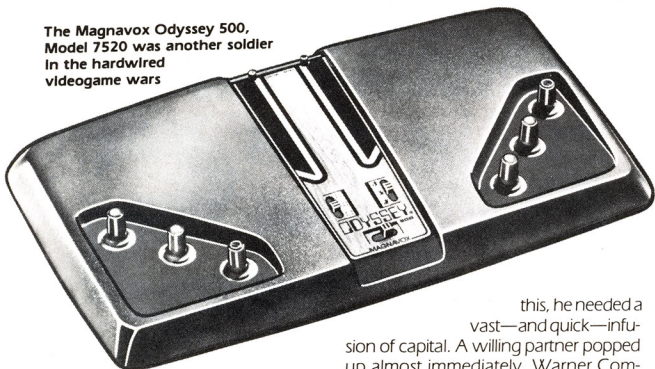
home TV sets had been bothering me since the early sixties," Baer recalls. "The fact is that even back then there were 62 million T.V. homes—that's TV homes not TV sets. The idea of attaching some device to even a small fraction of that many sets was a pretty powerful incentive for coming up with something, anything, on which people might actually want to spend their money."

Baer's idea came to fruition in a tiny cubicle at Sanders Associates, where he worked as division manager for equipment design. Baer, Bill Harrison and Bill Busch had the only three keys to the top-secret research lab known as "the game room." The trio played prototypes of video ping pong and hockey games, with color and FM sound produced through the TV speaker, as early as 1967. (For posterity, the set they used was a 17-in. RCA color console.)



The Magnavox Odyssey 3000, Model 7514 offered four game options including hockey and tennis

The Magnavox Odyssey 500, Model 7520 was another solder in the hardwired videogame wars



the home market, Bushnell directed his energies at the coin-op field.

He followed up 'Pong', a certified blockbuster, with a score of driving, sports and tank battle contests. He also developed **Breakout**, a significant advance over the early, crude ball-and-paddle programs.

The next major breakthrough in game technology burst on the scene in 1975. Shortly after the introduction of the LSI (Large-Scale Integration) chip, General Instruments unveiled its revolutionary AY 38500, a "dedicated chip" capable of holding enough instruction data to play up to four paddle and two target games.

Coleco became GI's first major customer. Its Telstar Arcade rocked the marketplace like a technicolor bomb blast. By Christmas of 1976, more than 75 companies were churning out dedicated chip videogames. Unbeknownst to most people at the time, these hard-wired units were shortly to become obsolete.

Bushnell responded to the advent of GI's chip by starting a new Atari division, completely separate from the coin-op business, aimed at entering the home videogame market.

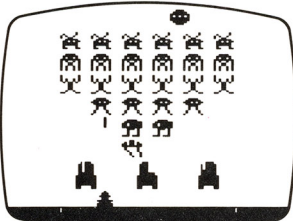
Soon he had signed a deal with Sears under the terms of which the catalogue giant agreed to sell Atari videogames. This meeting of the corporate minds was a landmark event, guaranteeing an instant nationwide audience for the home videogame. It also gave Bushnell a leg up on achieving a high level of brand recognition for Atari.

Suddenly everyone from computer companies to candlestick makers was leaping aboard the videogame bandwagon. The result was a product glut. With so many manufacturers producing virtually indistinguishable products, Bushnell realized that now was the time to get in there and firmly establish Atari as the maker of home videogames. To do

this, he needed a vast—and quick—infusion of capital. A willing partner popped up almost immediately. Warner Communications shelled out \$28 million for full ownership of Atari. Busnell remained on the scene as chairman of the board.

Between 1976 and 1980, Atari introduced several intriguing hard-wired products, including **Indy 500** and **Video Pinball**. The latter was particularly good, boasting two of the best pinball programs ever developed, a version of 'Breakout', and a pair of basketball-like contests called **Rebound**.

Consumers started getting restless. They were tiring of paddle games and,



The revolutionary SPACE INVADERS

especially, of systems that were antiquated two weeks after purchase. The telling point: No matter how entertaining a videogame—or even six videogames—might be, players got bored sooner or later.

Programmability was the obvious answer. Fairchild took the first step by marketing its Channel F in August 1976. It was the first system for which additional game cartridges could be purchased.

Following hard on the heels of the Channel F came RCA's Studio II, a fiasco of astonishing magnitude. Among other drawbacks, Studio II attempted to compete against the vividly colored hard-wired units—not to mention the then-upcoming programmables—with a black and white system. It soon sank beneath the waves of consumer indifference,

never to be seen again.

By 1978, manufacturers were dumping hard-wired games on the market. Discounts ran up to 75%. It was Good-bye Mr. Chips and hello home programmables.

For the holiday gift-giving season that year, consumers could choose from a wide selection of sophisticated game machines, each imbued with a high degree of programming flexibility. They all but banished the dedicated chip systems to the storage closets of America.

For customers interested in a gaming computer, Bally offered the Professional Arcade. It featured a fantastic collection of sports and arcade titles enhanced by audio-visual effects almost as good as those on the coin-op devices.

At lower price points were Atari's Video Computer System [sold by its old friends at Sears as the Tele-Arcade] and Magnavox's long-awaited program-

1962 Steve Russell designs **Spacewar**, the first computer videogame. His efforts directly inspire another M.I.T. man, Nolan Bushnell.

1966 Ralph Baer, working at Sanders Associates, starts development of the first unit for playing games through a home TV set.

1967 Baer hires Bill Harrison and Bill Busch, assigning them to a small lab called 'the game room.' The strange noises coming from behind the cubicle's locked door touch off some wild rumors.

1971 Nolan Bushnell builds his first videogame, **Computer Space**. This commercial version of 'Spacewar' proves to be far ahead of its time. The complex rules and abstract nature of the play mystify and intimidate players. It flops.

1971 Shortly after Bushnell unveils 'Computer Space,' another M.I.T. student named Bill Pitts produces his own 'Spacewar' variant, **Galaxy Game** is even less successful; the prototype was the only version ever put together.

1972 (May) Magnavox introduces Ralph Baer's pioneering videogame system, Odyssey. America remains indifferent, but the potential is obvious to visionaries.



mable, the Odyssey².

All three trumpeted the availability of dozens of game cartridges with more planned for later release. Crazy Eddie, a leading New York electronics retailer, sold more videogames during the 1978 holidays than any other type of product in the store.

Mattel joined the programmable parade in 1980 with Intellivision. Its Master Component was touted as the core of a modular computer system, but only the game-player has materialized thus far.

There was something for everyone. Atari specialized in arcade-style games, Intellivision emphasized sports simulations, and Odyssey² struck a balance between the two other systems.

How far has technology advanced in the intervening four years? The Atari VCS was originally created to play just **two** games. "That's correct," says

continued on page 34

GREAT MOMENTS IN VIDEOGAME HISTORY

- 1972** After Midway gives him the cold shoulder, Bushnell forms his own company. He names it Atari, the equivalent of "check-mate" in the Japanese game of Go. When **Pong** is tested at Andy Capp's, a Sunnyvale, Cal., watering hole, it breaks down immediately. The hitch: the coin box is jammed to overflowing with quarters!
- 1973** Universal Research produces the world's **second** home videogame. The company does not go on to become the *Avis* of the new industry.
- 1973** Magnavox introduces the Odyssey to a waiting world on a network TV special hosted by Frank Sinatra. Maybe if it had been Elton John...
- 1975** The introduction of the LSI—for Large-Scale Integration—chip, opening the way for a generation of ball and paddle games.
- 1975** Sears agrees to handle Atari's home videogame products, giving the fledgling company access to a national audience.
- 1976** Coleco uses the General Instruments super-chip to create the hugely popular Telstar Arcade. Its success inspires no fewer than 70 companies to market videogames for holiday gift-giving.
- 1976** The first programmable system,

Channel F, makes its debut from Fairchild Electronics. RCA follows with the black-and-white Studio II.

- 1976** Warner Communications sets a new record for spending on videogames when the conglomerate buys Atari for \$28 million.
- 1977** The historic "Gametric Conference" brings all of videogaming's leading lights together for a meeting in San Francisco. Awards are bestowed upon Ralph Baer and Nolan Bushnell for their pioneering work.
- 1978** A 'Pong'-weary nation turns its eyes toward programmability and finds the Atari VCS, Magnavox Odyssey² and Bally Professional Arcade on store shelves.
- 1978** A small Japanese pachinko manufacturer comes up with an interesting coin-op diversion called **Space Invaders**. Midway acquires the license to make the U.S. coin-op version, and it proves to be something more than a mild success.
- 1980** Mattel launches its modular game-playing computer, Intellivision. The games bowl people over with their outstanding graphics, and no one really minds too much when the keyboard and other peripherals remain

among the missing.

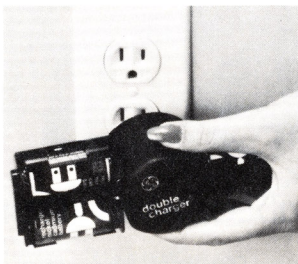
- 1980** Jim Levy and four ex-Atari designers—David Crane, Larry Kaplan, Alan Miller and Bob Whitehead—form Activision, the world's first videogame software company. Not surprisingly, the company immediately gives game designers a lot more recognition by crediting them on the cartridge packages.
- 1981** Atari introduces **Asteroids** to commercial arcades. Its use of the vector-scan graphics system developed by Cinema-tronics/Electrohome its non-linear play action. The arrival of this Quadrascan system, albeit only in black and white, signals another push forward in game quality.
- 1981** Atari enters the home computer field with the 400/800 system—and a great space game called **Star Raiders**.
- 1981** An influx of female arcaders makes this the year of **Pac-Man**.
- 1981** **Electronic Games**, the first magazine exclusively devoted to arcading, distributes its first issue.
- 1981** Color Quadrascan arrives. Atari produces **Tempest**, and Sega/Gremlin offers **Space Fury**.



NEW PRODUCTS

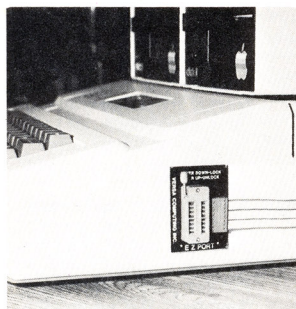
Rechargeable Batteries/General Electric/Suggested retail prices: Mini-Charger (BC-3) AA, \$13.63; C & D, \$14.88; 9-volt, \$14.37; Double-Charger (BC-2), \$6.38 (module and batteries separate); AA, \$9.25; C & D, \$10.50; 9-volt, \$9.99.

As owners of battery-operated handheld and stand-alone electronic games can certainly attest, those entertaining bundles of beeps, boops and bright lights can chow down on power cells with the voraciousness of a killer shrew.



A possible alternative is available from General Electric in the form of rechargeable batteries that can be juiced up over 1,000 times! Even alkaline batteries can't hope to compete with that kind of longevity.

Two models are offered, for single- or double-battery recharging. The former, identified as the BC-3, sells as a complete unit. With the Double-Charger, however, the unit and the type of batteries preferred must be purchased separately.



E-Z Port/Versa Ware/Suggested retail price: \$24.95

Apple owners have long suffered with a not-so-secret sorrow: everytime they want to plug or unplug a paddle or joystick, the whole machine must be opened up. There's no external connection for such gaming paraphernalia.

The folks who make, among other things, the VersaWriter, have come to the rescue with an easily attached external port. As an extra bonus, it's a "no pressure connection" which will greatly prolong the life of those fragile, multi-pin plugs.

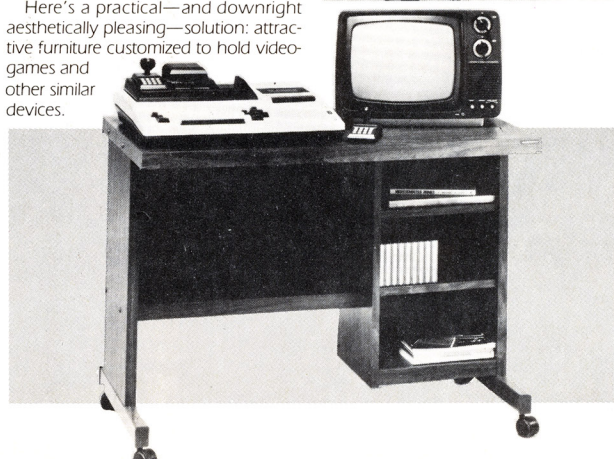
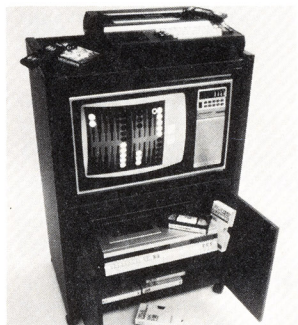
The 'E-Z Port' is suitable for hooking up a pair of paddles or a joystick. The actual port attaches to any convenient spot on the outside of the Apple's casing with a self-adhesive back.

Electronics Furniture/Gusdorf Corp./Suggested retail price (for model No. 1920 pictured here): \$235.

As the number of game machines—both programmable videogame systems and microcomputers, continue to proliferate in American livingrooms, the problem worrying many electronic arcaders is: "Where am I going to put this stuff?"

In the past, two options existed. The devices could either be tucked under couches or put in closets, where dust could get at the workings, or they could be allowed to lie there in plain sight so that little brother could step on them.

Here's a practical—and downright aesthetically pleasing—solution: attractive furniture customized to hold videogames and other similar devices.



STONE of Sisyphus

INCLUDES 2 JAM PACKED DISKS OF DATA BUT
WILL WORK ON YOUR 1 DRIVE MICROCOMPUTER!

AVAILABLE ON DISK ONLY FOR:

TRS-80 MODEL 1 32K	012-0100	\$29.95
TRS-80 MODEL 3 48K	012-0100	\$29.95
Apple 2 Applesoft in ROM	042-0100	\$29.95
ATARI 40K	052-0100	\$34.95

 **Adventure
INTERNATIONAL**

A DIVISION OF SCOTT ADAMS, INC.
BOX 3435, LONGWOOD, FL 32750
(805) 862-6917

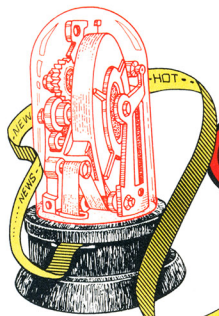
ORDER FROM YOUR FAVORITE DEALER
or CALL TOLL FREE (800) 327-7172

SHIPPING & HANDLING ARE EXTRA. PRICES SUBJECT TO CHANGE WITHOUT NOTICE

We want to take you on a journey — a journey into an age undreamed of. When a man's worth was measured by his courage and cunning. With **STONE OF SISYPHUS**, we have re-created the wonderment of that ancient era. The **Maces & Magic Series** allows you to interact with the adventure on an intensely personal level. You create your own character, giving him (or her) the attributes of strength, IQ, constitution, dexterity and charisma. You then arm and prepare your creation for the challenges ahead. Amazingly, your character will evolve and grow as the journey progresses. Prepare yourself — breathe deeply, and step into the enchantment ... the enchantment of **STONE OF SISYPHUS** and the **Maces & Magic Series**.

ART COPYRIGHT
1981 RAYMOND BAYLESS

ELECTRONIC GAMES HOTLINE



NEWEST GAMES HIT TOWN

FLASH -- SUPER GAMES

NEW --- GREAT

0995

Atari report

★ New cartridges for the VCS will include versions of games already popular with owners of Atari computers, **Super-Breakout** and **Star Raiders**. The Sunnyvale, Cal., company has also acquired home videogame rights to a trio of amusement center luminaries, **Defender**, **Pac-Man** and **Galaxian**...

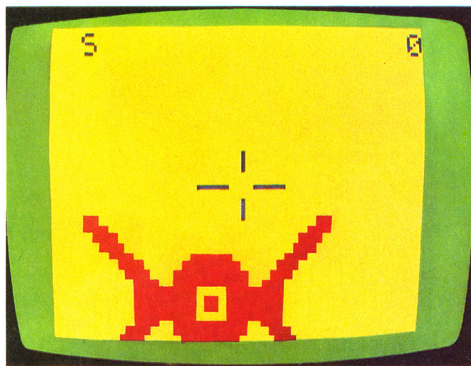
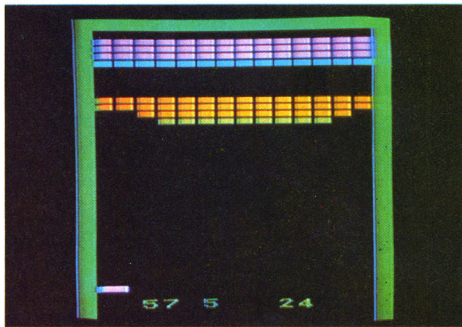
★ VCS fans looking for fresh games should investigate Atari's three titles available exclusively through Sears. These in-

clude **Super-Breakout**, **Steeplechase** and **Stellar Track**...

★ Warner Amex, the cable arm of Warner Communications (in partnership with American Express) has announced the introduction of a 24-hour game channel for those wired up in its territories. No details yet, but the betting is that the channel will make use of the expertise of another Warner subsidiary, Atari...

★ **Tempest** and **Centipede**, the latest entries from the Coin-Op division,

SUPER-BREAKOUT COMES TO THE VCS



NEW FOR THE TRS-80

Computer shorts

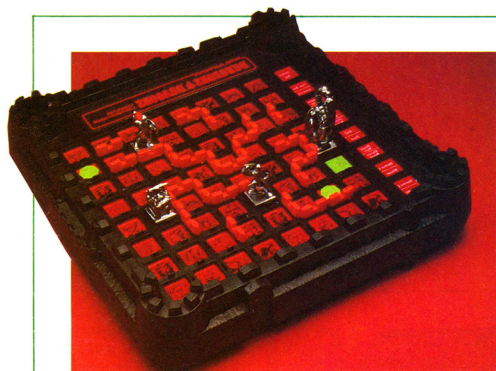
★ Nasir, who has designed some of the most popular computer games for Sirius Software, including **Gorgon**, is out on his own with a new company called Gibelli Software. The infant firm's first title will be **Firebird**, touted as a departure from the usual space shoot-'em-ups.

★ On-Line, having hit it big with **Jawbreaker** for the Atari 400/800, is busily converting some of its other leading titles for play on the system. The much-admired **Hi-Res Adventure** series is

tion from the original Apple II edition...

★ Prospects for acceptance of the TRS-80 Color Computer by the electronic gaming community look a lot brighter than they did six months ago. A batch of new games from Tandy and the appearance of several independent software suppliers is beginning to end the software drought...

★ Will success spoil Mark Turmell, the doctor who created the off-beat **Sneakers** for Sirius Software? Probably not, but the overwhelming positive reception for his labor-of-love has reportedly con-



DUNGEONS AND DRAGONS

Inside Mattel

★ Mattel has broken its production logjam and put three new cartridges into the stores: **Bowling**, **Astro-Smash** and **Triple Action**. **Boxing**, which was to have been the fourth release, has evidently been pulled back for further work. 'Bowling' is a visual delight with animated pinsetter and bowler. 'Astro-Smash' and 'Triple Action' represent a rare Intellivision excursion into the realm of action games. The former is a cross between **Space In-**

vaders and **Asteroids**, while the latter is a pot pourri including bi-plane, car race and tank contests. . . .

★ **Dungeons & Dragons**, Mattel's stand-alone maze game inspired by the role-playing game of the same name is now available, with the company's **Dallas** expected to follow it soon. Lending a note of authenticity to the electronic version of the popular CBS series is that the computer, as J.R., attempts to dupe, cheat and manipulate the human players.

are getting a warm welcome in the game parlors. The latter is a charming Space Invaders variation in which the cannon can move vertically as well as horizontally, while shooting at a multi-segment centipede slithering down the screen through mushroom-lined corridors. 'Terpest' is the first full-color quadrascan coin-op in which players move a pulsar-firing weapon around the perimeters of various different geometric shapes. . . .

vinced the strictly amateur designer to concoct a new game program.

★ Evidently the folks at **A.N.A.L.O.G.**, a magazine covering Atari VCS and 400/800, couldn't bear to stay on the sidelines and only write about all the exciting software. The Massachusetts-based outfit has just produced a number of programs for the Atari computers. Included in the first group of programs are **Analog Adventure**, a version of the original adventure game; **Thunder Island**, a maze challenge; and **Shooting Gallery**, a moving target extravaganza.

Tabletop Pac-Man

★ Coleco has picked two of arcading's choicest plums. It has concluded agreements that give it exclusive rights to produce stand-alone versions of both **Pac-Man** and **Galaxian**. The company plans to market them as tabletop devices utilizing a newly developed graphics system. Each will offer the standard version of the game, a head-to-head option and a third choice employing an unusual rules addition. . . .

★ Entex has added four upscale hand-helds to its line: **Galaxian II**, **Space Invaders 2**, **Escape** and **3-D Grand Prix**. 'Escape' is a maze game with 3-D per-



COLECO PAC-MAN

spective. It has 1,000 different mazes, several levels of difficulty and a variant

that allows the arcader to hunt for prizes in the labyrinth. . . .



GALAXIAN 2



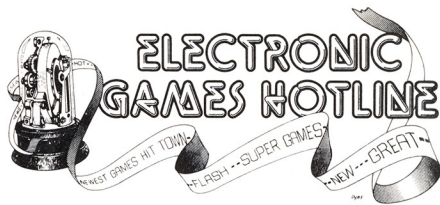
ESCAPE-1000-MAZES

PDI goes Beyond

The latest company to succumb to the irresistible lure of the electronic gaming world is PDI, Inc. Although the firm's **Sammy the Sea Serpent** is a hit entertainment program for small fry, PDI has been best-known for an impressive

line of educational software.

The manufacturer has established a new division, Beyond Software, to market games for popular micro-computer systems. The first release is **Captivity**, a three-dimensional maze game for the Atari 400/800.



Odyssey Outlook

★ Odyssey has stolen a march on rival videogame companies by being the first to get a gobble game into the retail market. Its version features just 12 munchies, but they don't stand still as in **Pac-Man**...

★ One of the few kid-vid cartridges is Odyssey's new **Monkeyshines**. Players swing on-screen simians around the wildest jungle-jim you've ever seen...

★ **Conquest of the World**, the second in Odyssey's Master Strategy Series, lets players battle with tanks, planes and sub-



K.C. MUNCHKIN

marines to make their home country the most powerful on the planet. The company has announced that the third title will be **The Great Wall Street Fortune Hunt**. This financial game splits the screen into thirds horizontally. A stock ticker runs across the top, news headlines crawl across the middle and the players' portfolios fill the rest of the field...

★ The first issue of the 0^2 newsletter is now in the hands of owners. That means that Atari, Intellivision and Odyssey all now provide regular information to the hobby via clubs and/or newsletters.

Tournament fiasco

The coin-op world has crowned a pair of national champions, but nobody is celebrating. The tournament, held in Chicago's Expo Center from October 28 to November 1, proved to be a dismal failure.

Although Atari backed the project to the tune of \$50,000 in prizes, the outfit picked to administer the event, Tournament Games Inc., fumbled the ball. Tournament Games, which had previously run billiard, foosball, air hockey and dart competition, showed their lack of experience with the hobby of electronic gaming.

Although TGI had prom-

ised 10,000-15,000 coin-oppers would attend the four-day tourney, actual attendance was an unbelievable 150. Fewer than two-dozen female arcaders showed up to take part in the championship.

Poor attendance is probably attributable to the cost and scheduling of the tournament. Off-the-street registrants paid \$60., and even those winners of local contests who received entry passes still would have had to pay transportation to, and lodging in, Chicago.

Once enrolled, contestants found that it was a TGI tradition that every participant pay for all games, even practice rounds. Arcaders who shelled out those additional quarters soon learned,

ATARI WINNERS





PAM PLAYS

Activision Close-up

As one of the main sponsors of this year's U.S. Tennis Open, Activision stocked the players' lounge with videogames to help them relax between strenuous rounds.

The inevitable happened: Some of the pros became ardent arcaders. Pam Shivers, for example, became a dedicated—and reportedly superb—hand at **Kaboom!**

Imagic debuts

Four veterans of the programmable videogame business have announced the formation of Imagic, a new independent supplier of software for both the Atari VCS and Mattel Intellivision systems.

Bill Grubb and Dennis Koble, previously with Atari, and James Goldberg and Brian Dougherty, formerly of Mattel, are the



IMAGIC'S TEAM

men responsible. The company expects to have its first pair of releases—one a new science fiction contest—in the stores by mid-1982. Where feasible, Imagic intends to produce the same program in both formats. This would, of course, be a videogaming first.

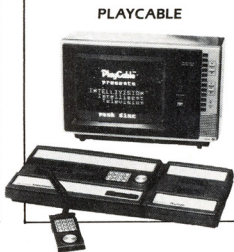
"Imagic intends to be a major factor in the videogame business within 12 months," vows co-founder Bill Grubb.

Play with Cable

PlayCable is getting off the ground now that Mattel and General Instruments have signed on the dotted line.

Subscribers purchase the Master Component of the Intellivision system from their local cable operator. The heart of the operation is the GI-developed Jerrold "Data-Channel," which can store up to 15 game programs. After the home arcader selects a game, the Jerrold adapter selects the correct code from the data stream and transfers it to a computer memory chip.

PlayCable will rotate available selections periodically, giving subscribers access to the complete Intellivision library.



to their dismay, that internal timers had been installed in all 250 **Centipede** machines to limit play to just three minutes.

Chaos ruled during the four days of competition. Rules and schedules changed frequently, creating much confusion about where and when people were to play.

Eric Ginner emerged as the winner of the "Open Singles" competition and pocketed a check for \$12,000. Ok-Soo Han walked away with \$4,000 in money and merchandise as the female arcader supreme.

Bulletin . . .

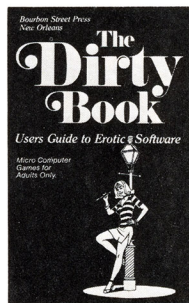
What bounces higher than the clowns in **Circus**

Atari? The checks given to winners of the Atari Coin-Op Tournament. As **Electronic Games** goes to press, a report—confirmed by Atari officials—surfaced that the checks given winners by Tournament Games, Inc., had proven bogus.

Atari has taken this latest setback with corporate good grace. The Sunnyvale, Cal., manufacturer, which will probably run its own tournaments in the future—the VCS events have enjoyed great success—has volunteered to make good on all awards. Atari has established a toll-free number 800-538-1611 and urges all winners to call so that they can receive the prizes they earned.

Adult games

New Orleans' Bourbon Street Press has announced a computer software guide to "adults only" computer game programs. **The Dirty**



THE DIRTY BOOK

Book, to be published quarterly, promises to print program listings for games that are a good deal more risqué than **Space Invaders**. Such programs have circulated informally among computerists for some time, but now there'll be a clearing house for X and R-rated material.

The ad brochure for 'The Dirty Book' states: "Take a break from space wars, shoot-'em-ups, hide and seek games. Add spice, flavor and sensual stimulation instead. . . Enough chasing klingons around the tube. Let's take a different trip around the world." Sounds like the kind of stuff that might make a green screen turn red with embarrassment.

PDI goes Beyond

The latest company to succumb to the irresistible lure of the electronic gaming world is PDI, Inc. Although the firm's **Sammy the Sea Serpent** is a hit entertainment program for small fry, PDI has been best-known for an impressive

line of educational software.

The manufacturer has established a new division, Beyond Software, to market games for popular micro-computer systems. The first release is **Captivity**, a three-dimensional maze game for the Atari 400/800.



Odyssey Outlook

Odyssey has stolen a march on rival videogame companies by being the first to get a gobbler game into the retail market. Its version features just 12 munchies, but they don't stand still as in **Pac-Man**.

One of the few kid-wid cartridges is Odyssey's new **Monkeyshines**. Players swing on-screen simians around the wildest jungles you've ever seen.

Conquest of the World, the second in Odyssey's Master Strategy Series, lets players battle with tanks, planes and sub-



K.C. MUNCHKIN

marines to make their home country the most powerful on the planet. The company has announced that the third title will be **The Great Wall Street Fortune Hunt**. This financial game splits the screen into three thirds horizontally. A stock ticker runs across the top, news headlines crawl across the middle and the players' portfolios fill the rest of the field.

The first issue of the O' newsletter is now in the hands of owners. That means that Atari, Intellivision and Odyssey all now provide regular information to the hobby via clubs and/or newsletters.

ATARI WINNERS



Tournament fiasco

The coin-op world has crowned a pair of national champions, but nobody is celebrating. The tournament, held in Chicago's Expo Center from October 28 to November 1, proved to be a dismal failure.

Although Atari backed the project to the tune of \$50,000 in prizes, the outfit picked to administer the event, Tournament Games Inc., fumbled the ball. Tournament Games, which had previously run billiard, football, air hockey and dart competition, showed their lack of experience with the hobby of electronic gaming.

Although TGI had prom-

ised 10,000-15,000 coin-oppers would attend the four-day touney, actual attendance was an unbelievable 150. Fewer than two dozen female arcaders showed up to take part in the championship.

Poor attendance is probably attributable to the cost and scheduling of the tournament. Off-the-street registrants paid \$60, and even those winners of local contests who received entry passes still would have had to pay transportation to, and lodging in, Chicago.

Once enrolled, contestants found that it was a TGI tradition that every participant pay for all games, even practice rounds. Arcaders who shelled out those additional quarters soon learned



PAM PLAYS

Activision Close-up

As one of the main sponsors of this year's U.S. Tennis Open, Activision stocked the players' lounge with videogames to help them relax between strenuous rounds.

The inevitable happened: Some of the pros became ardent arcaders. Pam Shivers, for example, became a dedicated—and reportedly superb—hand at **Kaboom!**

Imagic debuts

Four veterans of the programmable videogame business have announced the formation of Imagic, a new independent supplier of software for both the Atari VCS and Mattel Intellivision systems.

Bill Grubb and Dennis Koble, previously with Atari, and James Goldberg and Brian Dougherty, formerly of Mattel, are the



IMAGIC'S TEAM

men responsible. The company expects to have its first pair of releases—one a new science fiction contest—in the stores by mid-1982. Where feasible, Imagic intends to produce the same program in both formats. This would, of course, be a videogaming first.

Imagic intends to be a major factor in the videogame business within 12 months," vows co-founder Bill Grubb.

Play with Cable

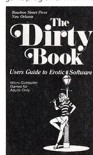
PlayCable is getting off the ground now that Mattel and General Instruments have signed on the dotted line.

Subscribers purchase the Master Component of the Intellivision system from their local cable operator. The heart of the operation is the GI-developed **Jerrid "Data-Channel,"** which can store up to 15 game programs. After the home arcader selects a game, the Jerrid adapter selects the correct code from the data stream and transfers it to a computer memory chip. PlayCable will rotate available selections periodically, giving subscribers access to the complete Intellivision library.



Adult games

New Orleans' Bourbon Street Press has announced a computer software guide to "adults only" computer game programs. **The Dirty**



THE DIRTY BOOK

Book, to be published quarterly, promises to print program listings for games that are a good deal more risqué than **Space Invaders**. Such programs have circulated informally among computerists for some time, but now there'll be a clearing house for X-and R-rated material.

The ad brochure for **The Dirty Book** states: "Take a break from space wars, shoot-'em-ups, hide-and-seek games. Add spice, flavor and sensual stimulation instead. . . Enough chasing kingpins around the tube. It's take a different trip around the world." Sounds like the kind of stuff that might make a green screen turn red with embarrassment.

to their dismay, that internal timers had been installed in all 250 **Centipede** machines to limit play to just three minutes.

Chaos ruled during the four days of competition. Rules and schedules changed frequently, creating much confusion about where and when people were to play.

Eric Ginner emerged as the winner of the "Open Singles" competition and pocketed a check for \$12,000. Ok-Soo Han walked away with \$4,000 in money and merchandise as the female arcader supreme.

Bulletin . . .

What bounces higher than the clowns in **Circus**

Atari? The checks given to winners of the Atari Coin-Op Tournament. As **Electronic Games** goes to press, a report—confirmed by Atari officials—surfaced that the checks given winners by Tournament Games, Inc., had proven bogus.

Atari has taken this latest setback with corporate good grace. The Sunnyvale, Cal., manufacturer, which will probably run its own tournaments in the future—the VCS events have enjoyed great success—has volunteered to make good on all awards.

Atari has established a toll-free number 800-538-1611 and urges all winners to call so that they can receive the prizes they earned.

An introduction to computer adventures

By Arnie Katz

SLAY

There's a dragon living at our house. In fact, we're also infested with kobolds, zombies, orcs and hordes of evil-doers of every description. Fortunately, there's no immediate cause for alarm. They're all trapped on diskettes, and an intrepid band of heroes intends to finish most of them off this weekend.

Combatting the forces of darkness—and other familiar elements of sword and sorcery hijinks like finding treasure and saving damsels in distress—are among the thrills that await players of computer adventure games. Already running a close second to arcade-style computer programs in overall popularity, adventures give devotees the opportunity to spend a couple of hours vicariously experiencing worlds of frightening dangers and glorious deeds.

Computer adventures are loosely based on concepts introduced by non-electronic

tronic games

Dungeons

Unlike more traditional games like chess and **Monopoly**, 'D&D' emphasizes creating a persona for a game-character and then play-acting that character through a series of increasingly challenging situations.

In another striking departure from the usual boardgame, participants work cooperatively to accomplish common goals instead of competing against each other. It is not uncommon to see one player sacrifice a character to preserve the others in the adventuring group.

"Winning" in games like 'Dungeons

role-playing (RPGs) such as **& Dragons**.

& Dragons

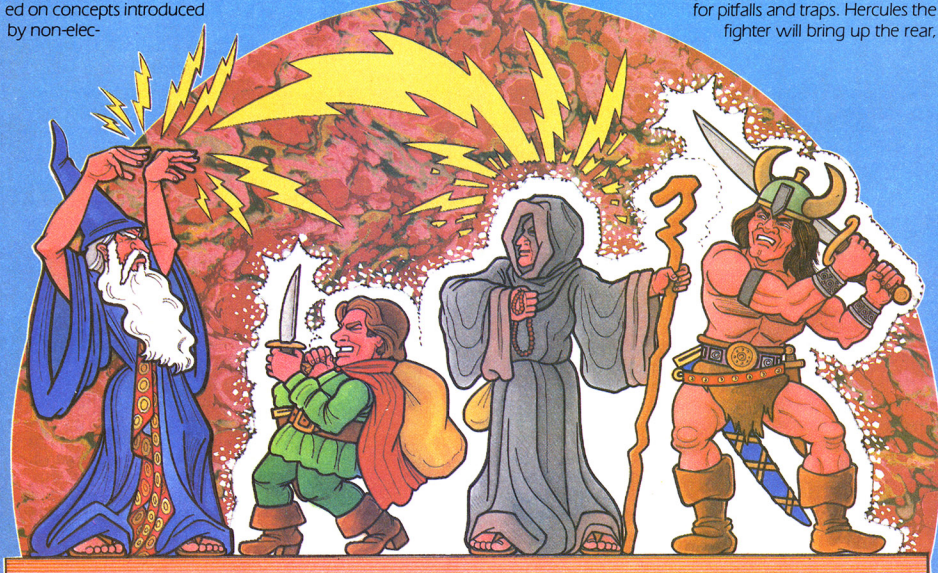
traditional games like chess and **Monopoly**, 'D&D' emphasizes creating a persona for a game-character and then play-acting that character through a series of increasingly challenging situations.

& Dragons,' as in real life, is not a cut-and-dried proposition. RPGs are generally played as a series of semi-connected episodes. Characters accumulate experience as a result of their exploits and gradually rise in power during the course of their heroic careers. Sometimes, success is measured in the number of characters that survive a deathtrap to fight again another day.

The hub of any non-electronic role-playing game is the so-called Dungeonmaster (DM). This individual designs the scenarios, referees games in progress and informs players of the consequences of their characters' actions. Here's a segment that might occur in a typical session of 'Dungeons & Dragons':

Party Leaders: We're walking slowly down the passage. Tovah the Thief is carefully checking the walls and floors for pitfalls and traps. Hercules the fighter will bring up the rear,

The four most popular fantasy roles— wizard, dwarf, cleric and warrior



ING DRAGONS



watching behind us for an ambush.

DM: You walk 60 ft. and see a door on your right.

Tovah: I'm looking at the door and, particularly, the lock.

DM: It is an oaken door reinforced with metal strips. The lock appears to be of the pin tumbler type.

Tovah: I will attempt to pick the lock.

DM: You succeed.

Party Leader: Let's open the door and enter.

DM: You're in a dimly lit room and six hulk shapes charge at you from the dark corners.

Party Leader: Battle positions everyone!

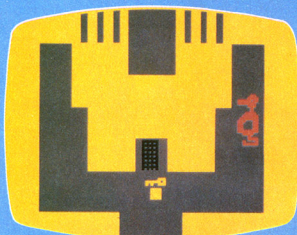
And so it goes. The only catch is that the Dungeonmaster usually ends up spending untold hours creating the fantasy world and dreaming up exciting scenarios. What's more, the DM must function solely as a neutral arbiter and can't run a character!

Electronic adventures substitute the computer for a human DM. While no machine can match the imagination, creativity and resourcefulness of a live Dungeonmaster, the computer version requires little set-up time and no impartial umpire. Virtually all computer adventures can even be played solitary, while non-electronic RPGs require at least four or five participants.

The development of interactive computer adventures confirms that necessity is, indeed, the mother of invention. They were truly an inspiration born out of desperation.

The first generation of personal computers, however well they balanced checkbooks and stored mailing lists, just didn't have the capacity to adequately render arcade games. The reasons were simple and obvious: the earliest micros lacked the basic ingredients that make up such programs. They possessed neither sound nor color and offered only the most rudimentary on-screen graphics.

Perhaps novelty alone made those pioneering computer arcade games look



Owners of programmable videogames can also get in on the fantasy fun with games such as "Adventure" from Atari

less crude back then than they do today, but that couldn't have made them any more exciting to play.

Text-based games created by pioneers like Scott Adams filled the gap admirably. Since these contests relied on mental, not physical, dexterity, the slow response time of games programmed in BASIC was totally irrelevant.

Of course, the scope of adventure games has widened enormously as personal computer hardware improved. Some of the newest titles include such niceties as illustrations of key scenes, multi-character play and even animated sequences. Some companies are even producing additional scenarios that tack onto the basic game program.

There are five distinct types of adventures currently available. They are:

Text adventures: These resemble short stories that are, in a sense, jointly written by the game's designer and each individual player. When the person or persons manipulating the on-screen characters inputs one- or two-word commands via the keyboard, the program responds with the appropriate description. Often but not always, text adventures present a series of puzzles that must be solved in a pre-determined order until the ultimate goal is finally achieved.

Augmented text adventures. These are basically similar to the standard text adventures but add an extra dimen-

sion in the form of a few audio-visual enhancements.

Illustrated adventures. Actual pictures replace the long descriptions of what the on-screen hero sees. These generally take the form of multi-color line drawings in the high-resolution graphics mode. Movement is still accomplished by the input of commands through the keyboard, though the range of commands is frequently more restricted than with the text or graphics adventures.

Action adventures. Manual dexterity plays a much bigger role in this type of adventure than in any other, since the gamer maneuvers and fights by utilizing a joystick. There may or may not be a few additional one-letter commands such as "get," "shoot" and "examine," but the emphasis is on navigating your adventures around what amounts to a schematic map of the game's setting.

Graphics adventures. The newest arrival on the computer adventure scene combines elements of all four other types in varying proportion. The trend is toward giving the gamer the view of the hero's surroundings as he would actually see them rather than offering an omniscient overhead perspective.

Although a good case can be made for graphics adventures as the true state-of-the-art variety, all five approaches have their unique strengths. Many RPGers, for instance, claim to prefer the text adventures. They liken the experience of playing an all-text game to listening to the radio, in that it gives free rein to each gamer's own imagination instead of fencing it in by displaying everything in minute visual detail.

So if the workaday cares of 1982 have got you down, why not strap on an electronic sword, don your armor, and head for the dragon's lair? Maybe you can become the Siegfried or Conan of the computer world!



An introduction to computer adventures

By Arnie Katz

SLAYING DRAGONS

There's a dragon living at our house. In fact, we're also infested with kobolds, zombies, orcs and hordes of evil-doers of every description. Fortunately, there's no immediate cause for alarm. They're all trapped on diskettes, and an intrepid band of heroes intends to finish most of them off this weekend.

Combating the forces of darkness—and other familiar elements of sword and sorcery hijinks like finding treasure and solving drossels in distress—are among the things that await players of computer adventure games. Already running a close second to arcade-style computer programs in overall popularity, adventures give devotees the opportunity to spend a couple of hours vicariously experiencing worlds of frightening dangers and glorious deeds.

Computer adventures are loosely based on concepts introduced by non-electronic

tronic games. **Dungeons & Dragons** (RPGs) such as **Drakens** emphasizes creating a persona for a game-character and then playing-acting that character through a series of increasingly challenging situations. In another striking departure from the usual boardgame, participants work cooperatively to accomplish common goals instead of competing against each other. It is not uncommon to see one player sacrifice a character to preserve the others in the adventuring group.

"Winning" in games like **Dungeons & Dragons**, as in real life, is not a cut-and-dried proposition. RPGs are generally played as a series of semi-connected episodes. Characters accumulate experience as a result of their exploits and gradually rise in power during the course of their heroic careers. Sometimes, success is measured in the number of characters that survive a deathtrap to fight again another day.

The hub of any non-electronic role-playing game is the so-called Dungeonmaster (DM). This individual designs the scenarios, referees games in progress and informs players of the consequences of their characters' actions. Here's a segment that might occur in a typical session of "Dungeons & Dragons":

Party Leaders: We're walking slowly down the passage. Tovan the Thief is carefully checking the walls and floors for pitfalls and traps. Hercules the fighter will bring up the rear,

watching behind us for an ambush. DM: You walk 60 ft. and see a door on your right.

Tovan: I'm looking at the door and, particularly, the lock.

DM: It is an oak door reinforced with metal strips. The lock appears to be of the pin tumbler type.

Tovan: I will attempt to pick the lock.

DM: You succeed.

Party Leader: Let's open the door and enter.

DM: You're in a dimly lit room and six hulk shapes charge at you from the dark corners.

Party Leader: Battle positions everyone! And so it goes. The only catch is that the Dungeonmaster usually ends up spending untold hours creating the fantasy world and dreaming up exciting scenarios. What's more, the DM must function solely as a neutral arbiter and can't run a character!

Electronic adventures substitute the computer for a human DM. While no machine can match the imagination, creativity and resourcefulness of a live Dungeonmaster, the computer version requires little set-up time and no impartial umpire. Virtually all computer adventures can even be played solitaire, while non-electronic RPGs require at least four or five participants.

The development of interactive computer adventures confirms that necessity is, indeed, the mother of invention. They were truly an inspiration born out of desperation.

The first generation of personal computers, however well they balanced checkbooks and stored mailing lists, just didn't have the capacity to adequately render arcade games. The reasons were simple and obvious: the earliest micros lacked the basic ingredients that make up such programs. They possessed neither sound nor color and offered only the most rudimentary on-screen graphics.

Perhaps novelty alone made those pioneering computer arcade games look



Owners of programmable videogames can also get in on the fantasy fun with games such as "Adventure" from Atari

less crude back then than they do today, but that couldn't have made them any more exciting to play.

Text-based games created by pioneers like Scott Adams filled the gap admirably. Since these contests relied on mental, not physical, dexterity, the slow response time of games programmed in BASIC was totally irrelevant.

Of course, the scope of adventure games has widened enormously as personal computer hardware improved. Some of the newest titles include such niceties as illustrations of key scenes, multi-character play and even animated sequences. Some companies are even producing additional scenarios that tack onto the basic game program.

There are five distinct types of adventures currently available. They are:

Text adventures: These resemble short stories that are, in a sense, jointly written by the game's designer and each individual player. When the person or persons manipulating the on-screen characters inputs one- or two-word commands via the keyboard, the program responds with the appropriate description. Often but not always, text adventures present a series of puzzles that must be solved in a pre-determined order until the ultimate goal is finally achieved.

Augmented text adventures. These are basically similar to the standard text adventures but add an extra dimen-

sion in the form of a few audio-visual enhancements.

Illustrated adventures. Actual pictures replace the long descriptions of what the on-screen hero sees. These generally take the form of multi-color line drawings in the high-resolution graphics mode. Movement is still accomplished by the input of commands through the keyboard, though the range of commands is frequently more restricted than with the text or graphics adventures.

Action adventures. Manual dexterity plays a much bigger role in this type of adventure than in any other, since the gamer maneuvers and fights by utilizing a joystick. There may or may not be a few additional one-letter commands such as "get," "shoot" and "examine," but the emphasis is on navigating your adventures around what amounts to a schematic map of the game's setting.

Graphics adventures. The newest arrival on the computer adventures scene combines elements of all four other types in varying proportion. The trend is toward giving the gamer the view of the hero's surroundings as he would actually see them rather than offering an omniscient overhead perspective.

Although a good case can be made for graphics adventures as the true state-of-the-art variety, all five approaches have their unique strengths. Many RPGers, for instance, claim to prefer the text adventures. They liken the experience of playing an all-text game to listening to the radio, in that it gives free rein to each gamer's own imagination instead of fencing it in by displaying everything in minute visual detail.

So if the workday cares of 1982 have got you down, why not strap on an electronic sword, don your armor, and head for the dragon's lair? Maybe you can become the Siegfried or Conan of the computer world!



The four most popular fantasy roles—wizard, dwarf, cleric and warrior

THE MAKING

By the time a coin-operated electronic game arrives at your local amusement center, candy store, bowling alley or tavern, it has already withstood an experience more strenuous than anything it's likely to encounter from the paying customers.

Arcade machines aren't just dreamed up, stamped out, certified smash hits and, eventually, retired to coin-op heaven (someone's basement playroom). No, the evolution of the games into which we all feed so many quarters, from creative concept to final paint job, is a highly complex process.

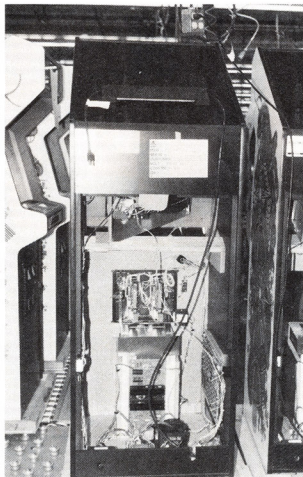
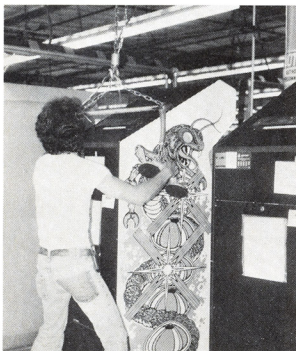
At the Atari coin-op division, the company's oldest operating arm, it all begins with a brainstorming session. Ideas are tossed around, revamped, rejected, cut, tailored and set out to cool. Of the thousands of concepts that have been test-flow across the conference table, only a very few ever negotiate the long winding road from imagination to reality.

The idea is, of course, only half the battle. The concept must be executed. It has to be shaped to meet the demands and limitations of current technology. The best game idea in the world is worthless if it can't be built.

Coin-ops, however, benefit from a much greater array of options than is the case with other types of electronic games. Designers are free to employ special intelligent monitors—such as the quadrascan system which Electrohome developed exclusively for Atari—that provide much higher graphic resolution and freer on-screen movement than is possible on a cathode ray tube (TV) screen.

Coin-ops have another edge: colored

Atari worker loads CENTIPEDES from assembly line and prepares it for shipping to local arcades.



Inside CENTIPEDE—a peek at the sophisticated program boards housed within the game cabinet

plastic overlays, which can create breathtaking images within the darkened confines of the cabinet. Games such as **Warlords** benefit from gorgeous overlay work that even the main-line computers would be hard-pressed to equal.

Game creators must also adapt their ideas to the stringent demands of the coin-op marketplace. Are the images colorful enough? Is the game going to satisfy even players who are quickly eliminated? Is it boring? Addictive? Does it look too complicated to master?

Once a game idea is approved, the company allots three to four months for development and puts its game wizards to work. Meanwhile back at the ranch, the graphics crew is doing its thing, designing backboards, overlays (if any) and side-decals for the machine's cabinet. Special attention is lavished on creating

eye-catching lettering for the unit's title.

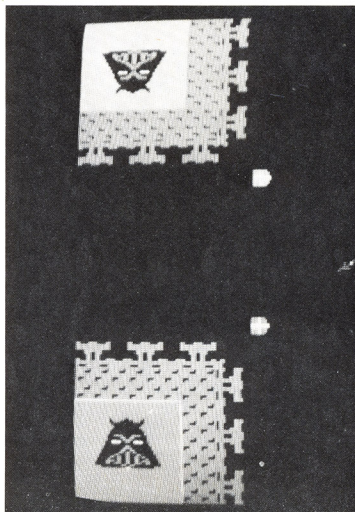
Four months later, Atari technicians assemble the first prototype, and in-house testing begins. Testers weed out gross errors and subject the game to probing critical evaluation.

If all is still "go," Atari builds several more prototypes and ships them to arcades all across the country. There the hardcore electro-gamers go over the new machine with a fine-tooth comb, picking up glitches and suggesting refinements.

Then the games return to the factory for more analysis and adjustment before a second round of on-location testing. This is the only way to determine if the new coin-op is rugged enough to stand up to heavy pay traffic in the commercial amusement centers.

Finally, the prototypes return to Atari's Sunnyvale, Ca., headquarters for final inspection. Boot camp is over. From now on, it's all gravy... or so the manufacturer hopes!

Soon the new machine is running off the assembly line in batches. The entire unit is assembled right in the factory,



OF AN

ARCADE

GAME

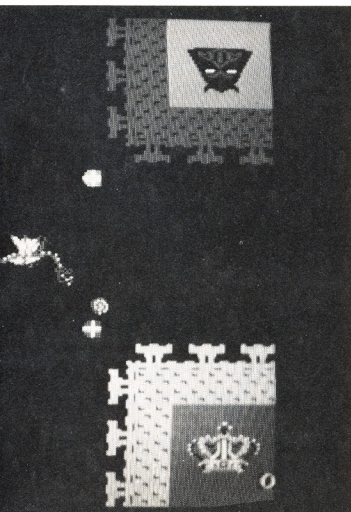
everything from control devices—like the mini-trackball recently introduced on **Centipede**—to the program boards.

Coin-op games don't enjoy very long lives. Even the most successful titles rarely survive more than a year at the peak of popularity. After their time has come and gone, some of the machines are sent to warehouses for resale to clubs, resorts and even some private collectors.

Others get to go 'round one more time. In arcade terms, they are reincarnated. Atari yanks the innards, strips the outer surface and uses the chassis for a more recent coin-op sensation.

But a few coin-op machines, who are very, **very** good, attain a particularly happy retirement in the Atari Game Room. Yes, game-lovers, it really exists. It's located in an L-shaped room just off the main reception area at Atari's main facility. There, in a luxurious carpeted setting, is a copy of every major coin-op

In the coin-op version of Atari's **WARLORDS**, plastic overlays are utilized to create a playfield with realistic castles and kings.



The making of an Arcade Game



RED BARON, one of Atari's new coin-op games, boasts flight simulator-quality visuals thanks to its Quadrascan monitor

Atari's **TEMPEST**—The first full-color Quadrascan game is both a technological and creative triumph, with wildly abstract science-fictional graphics!



creation the company has ever produced.

The games, say many visitors to this arcading shrine, are smiling.

Some companies have even begun experimenting with the concept of interchangeable games, with cabinets custom designed for that purpose. When a particular game has outlived its capacity to make money, the old program boards can be yanked and replaced by new ones in a matter of seconds. This modular design extends even to the title and accompanying artwork, which can be slid out and new labels and decals inserted in their place.



By Willy Richardson

By the time a coin-operated electronic game arrives at your local amusement center, candy store, bowling alley or tavern, it has already withstood an experience more strenuous than anything it's likely to encounter from the paying customers.

Arcade machines aren't just dreamed up, stamped out, certified smash hits and, eventually, retired to coin-op heaven (someone's basement playroom). No, the evolution of the games into which we all feed so many quarters, from creative concept to final paint job, is a highly complex process.

At the Atari coin-op division, the company's oldest operating arm, it all begins with a brainstorming session. Ideas are tossed around, revamped, rejected, cut, tailored and set out to cool. Of the thousands of concepts that have been test-flown across the conference table, only a very few ever negotiate the long winding road from imagination to reality.

The idea is, of course, only half the battle. The concept must be executed. It has to be shaped to meet the demands and limitations of current technology. The best game idea in the world is worthless if it can't be built.

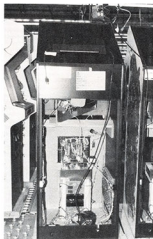
Coin-ops, however, benefit from a much greater array of options than is the case with other types of electronic games. Designers are free to employ special intelligent monitors—such as the quadrascan system which Electrohome developed exclusively for Atari—that provide much higher graphic resolution and free on-screen movement than is possible on a cathode ray tube (TV) screen.

Coin-ops have another edge: colored

Atari worker loads CENTIPEDES from assembly line and prepares it for shipping to local arcades.



32 Electronic Games



Inside CENTIPEDE—a peek at the sophisticated game boards housed within the program cabinet

plastic overlays, which can create breathtaking images within the darkened confines of the cabinet. Games such as **Warlords** benefit from gorgeous overlay work that even the main-line computers would be hard-pressed to equal.

Game creators must also adapt their ideas to the stringent demands of the coin-op marketplace. Are the images colorful enough? Is the game going to satisfy even players who are quickly eliminated? Is it boring? Addictive? Does it look too complicated to master?

Once a game idea is approved, the company allots three to four months for development and puts its game wizards to work. Meanwhile back at the ranch, the graphics crew is doing its thing, designing backboards, overlays (if any), and side-decals for the machine's cabinet. Special attention is lavished on creating

eye-catching lettering for the unit's title.

Four months later, Atari technicians assemble the first prototype, and in-house testing begins. Testers weed out gross errors and subject the game to probing critical evaluation.

If all is still "go," Atari builds several more prototypes and ships them to arcades all across the country. There the hardcore electro-gamers go over the new machine with a fine-tooth comb, picking up glitches and suggesting refinements.

Then the games return to the factory for more analysis and adjustment before a second round of on-location testing. This is the only way to determine if the new coin-op is rugged enough to stand up to heavy pay traffic in the commercial amusement centers.

Finally, the prototypes return to Atari's Sunnyvale, Ca., headquarters for final inspection. Boot camp is over. From now on, it's all gravy... or so the manufacturer hopes!

Soon the new machine is running off the assembly line in batches. The entire unit is assembled right in the factory,

THE MAKING OF AN ARCADE GAME

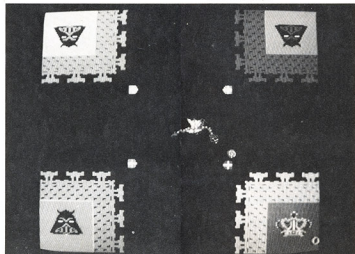
everything from control devices—like the mini-trakball recently introduced on **Centipede**—to the program boards.

Coin-op games don't enjoy very long lives. Even the most successful titles rarely survive more than a year at the peak of popularity. After their time has come and gone, some of the machines are sent to warehouses for resale to clubs, resorts and even some private collectors.

Others get to go "round one more time. In arcade terms, they are reincarnated. Atari yanks the innards, strips the outer surface and uses the chassis for a more recent coin-op sensation.

But a few coin-op machines, who are very, very good, attain a particularly happy retirement in the Atari Game Room. Yes, game-lovers, it really exists. It's located in an L-shaped room just off the main reception area at Atari's main facility. There, in a luxurious carpeted setting, is a copy of every major coin-op

In the coin-op version of Atari's **WARLORDS**, plastic overlays are utilized to create a playfield with realistic castles and kings.



The making of an Arcade Game



RED BARON, one of Atari's new coin-op games, boasts flight simulator-quality visuals thanks to its Quadrascan monitor



Atari's **TEMPEST**—The first full-color Quadrascan game is both a technological and creative triumph, with wildly abstract science-fictional graphics!

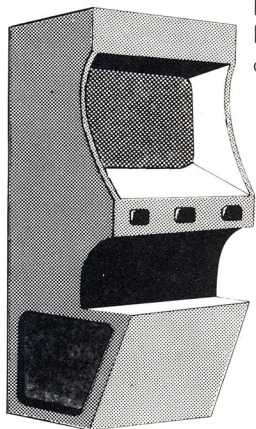
creation the company has ever produced.

The games, say many visitors to this arcading shrine, are smiling.

Some companies have even begun experimenting with the concept of interchangeable games, with cabinets custom designed for that purpose. When a particular game has outlived its capacity to make money, the old program boards can be yanked and replaced by new ones in a matter of seconds. This modular design extends even to the title and accompanying artwork, which can be slid out and new labels and decals inserted in their place.

Enjoy your own arcade at home!

Now you can have a new, used, reconditioned or closed out commercial video or pinball machine of your very own.



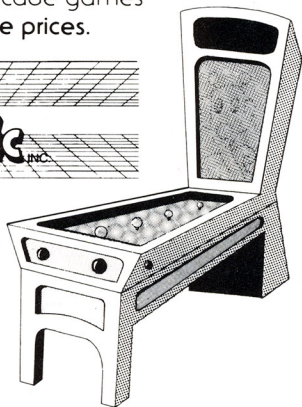
Interlogic has Asteroids, Phoenix, Space Invaders, Pac-Man and many more arcade games available at the best possible prices.

inter
logic INC.

(312) 671-0305

9806 W. Farragut Ave.
Rosemont, IL 60018

Telex: 270359
Intrlogic Rosm



HISTORY

continued from page 23

Atari's Steve Wright. "The VCS was basically designed to play paddle games and tank battles. In fact, when the VCS was being designed, it was felt that a 2K program capacity would be more than adequate.

"But then they decided, 'What the hell, why not make it 4K,'" Wright explains. "Not that they thought anyone would ever use it."

As things turned out, Atari began making 4K games—putting an extra chip into the cartridge itself—long before they ever expected to be doing so. By the time **Missile Command** and **Asteroids** appeared in home editions, the company was utilizing a technique that permitted the VCS to read two flipfopping 4K programs.

Activision, formed by Jim Levy and a quartet of designers, was the next new thing in electronic gaming. Established in 1980, it is exclusively devoted to the design and marketing of home videogame software. Activision now makes games

compatible with the VCS, but rumors are rife that other suppliers will be following in Activision's successful footsteps before the end of this year. (One has already been announced; Imagics will produce cartridges for both the VCS and Intellivision.)

Odyssey, the company that began the whole field, is making a major assault on the home market. While continuing to produce arcade-style titles like **UFO** and **K.C. Munchkin** and kideo entries like **Monkeyshines**, Odyssey is trying to catch the fancy of more sophisticated players with games that make use of the unit's alpha-numeric keyboard. Its adult strategy series of boardgame/videogame hybrids deals with such classic themes as fantasy adventure (**Quest for the Rings**), war (**Conquest of the World**) and high finance (**The Great Wall Street Fortune Hunt**). By expanding the range of its software library, Odyssey clearly hopes to benefit from the growing recognition that electronic gaming is a pastime for the entire family.

The last word in the videogame saga may well bring things full circle, right back to the computers that spawned it all. Today's microcomputers are more powerful than the one on which Steve Russell created 'Spacewar,' so it's entirely

logical that personal computers will become the game machines of tomorrow.

For the present, videogame manufacturers remain unsure as to whether the average American is ready to buddy up to a computer. Atari, it is reported, will soon begin production of a super videogame system capable of presenting coin-op quality programs.


The question for now is: at what point does the videogame system meet the computer? As the latter simultaneously becomes cheaper and more powerful, it won't be long before the two segments of the electronic gaming hobby are joined together as one. Already the floppy disk is vying with the ROM cartridge as a medium for storing games.

One thing is for sure. If the first decade of videogames is any indication, the next 10 years ought to provide plenty of excitement both on and off the home screen.



Take
stock
in America.





**Players
Guide To
Electronic
Science
Fiction
Games**



Arcading Goes Space-Happy

Science fiction and electronic gaming have been tearing up successfully for nearly 20 years. The obvious relationship between leading-edge technology and futuristic literature is obvious, so it's no surprise to learn that many pioneering designers were also rabid SF fans.

When Stephen Russell, Wayne Wiatanen and J.M. Graetz got together at the Hingham Institute in Cambridge, Mass., to collaborate on the first experimental videogame, they turned to science

fiction for a suitable inspirational theme.

"At the time, we were crashing and banging our way through the 'Skylark' and 'Lensman' novels of Edward E. Smith, Ph.D.," Graetz recalled in his memoirs of the invention of **Spacewar**. "In breaks between books, we would be off to one of Boston's seedier cinemas to view the latest trash from Toho. In the days before Mazdas and Minoltas,

the Japanese... churned out a steady diet of cinematic junk

food of which Rodan and Godzilla are only the best-known examples."

When the first video coin-ops materialized more than a decade later, among them was a device which allowed the arcader to pilot a spaceship that hunted flying saucers in outer space. It boasted a crude black and white monitor, but space-hounds loved it just the same.

Even as videogames climbed

vaders, became a super-hit first in

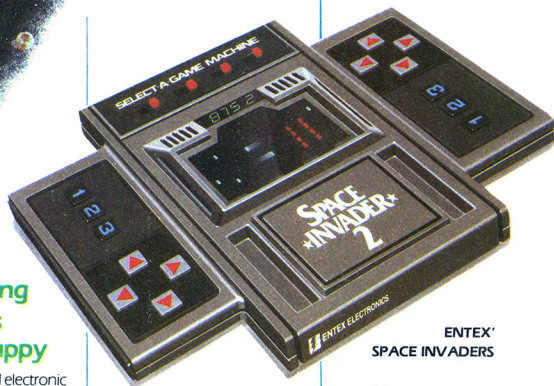
Japan and then in the United States. Since this breakthrough alert manufacturers catering to all segments of the electronic arcading hobby have pumped out an unbelievable variety of science fiction games in an effort to meet the seemingly inexhaustible demand.

The Many Faces of Space Invaders

Tromp! Tromp! Tromp! The creatures from space march down the screen toward the cannon in the eternal duel between arcaders and electronic aliens.

When Taito Ltd. wired up Japan with 100,000 **Space Invaders** machines, it put the whole world on notice that a new form of entertainment was at hand. Pinball kingpin Bally, realizing that the handwriting was already on the wall for the traditional commercial game parlor, bought the U.S. rights to 'Space Invaders.' Within months, it could safely be said that wherever two gamers gathered, one was playing 'Space Invaders'—and the other was waiting on line for a turn.

Atari produced the official videogame version in 1980, and it instantly vaulted to the top of the cartridge best-seller list. The company's nationwide tournament, with regional events in Los Angeles, San Francisco, Ft. Worth, Chicago and New York City, attracted well over 10,000 participants. By the time Bill Heineman emerged as Show Champion in an expert show-down, hundreds of favorable articles and stories about electronic gaming had been aired on television and printed in newspapers and magazines. More than any other single event, the 'Space Invaders' Tournament' established electronic arcading as a

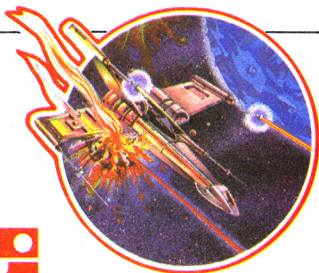


ENTEX' SPACE INVADERS

up the ladder of sophistication from **Pong** during the 1970's, science fiction was growing in popularity by leaps and bounds with the general public. A succession of SF fads—Edgar Rice Burroughs' 'Star Trek' and, finally, 'Star Wars'—made people extremely enthusiastic about anything that smacked of interstellar adventure.

So it was not entirely an accident when a science fiction coin-op videogame, **Space In-**

THE ELECTRONIC SPACESHIP CONQUERS THE UNIVERSE



major hobby.

Of course, even a good thing can be improved. **Galaxian** takes the basic 'Space Invaders' idea and adds aliens that swoop out of formation on birdlike wing for dive-bombing attacks on the defender's ship. This program has proven nearly as successful as its inspiration, with the result that 'Galaxian'-style games are proliferating into every corner of the electronic gaming world. Coming soon are authorized versions from Atari for home videogame systems and Coleco.

Asteroids Forever!

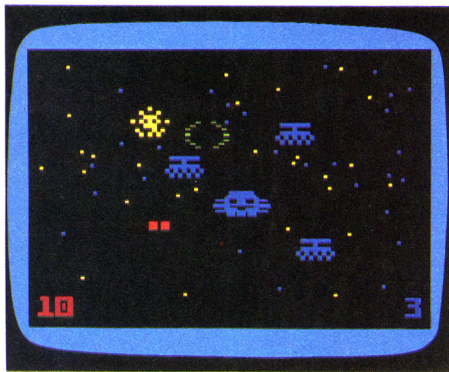
Just when the U.S. coin-op game makers started to get an inferiority complex about having to import all the good ideas from Japan, Atari showed what American ingenuity could accomplish by releasing **Asteroids**.

What a change from the

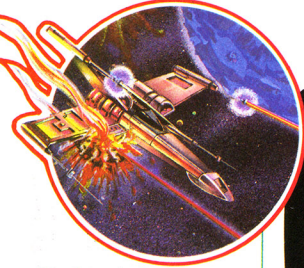
lock-step pattern made famous by **Space Invaders!** This quadrascan sensation put arcaders at the controls of a spaceship charged with clearing a sector of the galaxy of dangerous space debris. Instead of 'Space Invaders' fearsome symmetry, danger hurtled at the gamer from every conceivable direction.

Atari's edition for the VCS has duplicated this success, becoming 1981's hottest piece of videogame software. The Sunnyvale, Cal., manufacturer also offers 'Asteroids' for its 400/800 computers, and a host of other suppliers have marketed computer programs based fairly closely on the original prototype.

Enthusiasm built so rapidly for the game that Atari chose it as the contest for its second annual videogame tournament last fall. This time, Atari held regionals not just in a few cities, but all over the world. That's quite an achievement.



SPACE BATTLE

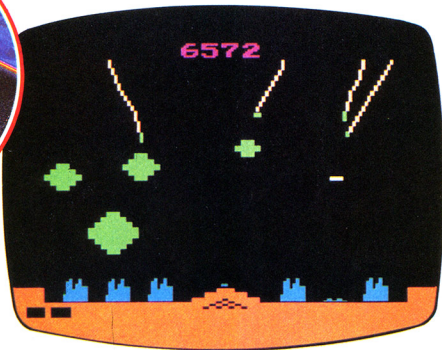


Defend the Earth with Missile Command

All that stands between six major cities and total annihilation is Earth's missile force. Alien rockets pour out of the heavens, the flames from their engines etching the sky with brilliant multi-colored lines. That's the setting for **Missile Command**, the second half of Atari's one-two punch of science fiction car-

space driving game in which the arcade steers a ship using the joystick so as to avoid collision with on-coming moonlets. Pushing the action button throws the craft into super-speed mode, enabling the player to tote up more points for tra-

MISSILE COMMAND



fun games for the Odyssey² programmable videogame system.

Since kicking things off with **Cosmic Conflict**, in which arcaders hurtle through the void, zapping enemy ships, the company's design staff has always

taken the wishes of SF-lovers very much to heart. The software line has grown to include **Invaders from Hyperspace**, **Alien Invaders—Plus!** and the highly unusual **War of Nerves**. Forsaking the typical SF game locale of deep space, 'War of Nerves' simulates the clash of ground-based android armies. An innovative bit of programming allows each general to control a whole battalion of robot troopers with a single joystick.

But of course, 'UFO' is the stellar attraction. It generates a level of frenzied excitement, as the arcader steers and shoots at the menacing unidentified flying objects that surround the star cruiser, that is rarely approached by even the fast-paced coin-ops.

Waging Interstellar War

One of the hallmarks of Mat- tel's software for Intellivision is that it always seems to provide an extra dimension for whatever topic is being simulated. This is certainly the case with the epic **Space Battle**, the flagship of the company's science fiction game line.

Even more than the outstanding graphics, what distinguishes 'Space Battle' is that it is much more than just an excellent outer space shoot-out. As commander of three defensive squadrons, the arcader must carefully allocate all the ships to meet both present and future dangers. Even if you're a better shot than Luke Skywalker, the computer-directed enemy can still

FUTURISTIC VIDEOGAMES FOR HOME ARCADES

tridges released for the Video Computer System last year.

And if **Asteroids** has its par-tisans, so does **Missile Command**. Experts rate the video-game edition as one of the best programs ever prepared for the VCS—and its tremendous sales certainly back up this view-point.

Atari didn't just start doing science fiction videogames lately, though. **Spaceship** was one of the first titles released for the system. One of the numerous variations included on the cartridge, **Warp**, is particularly enjoyable. It's a kind of outer

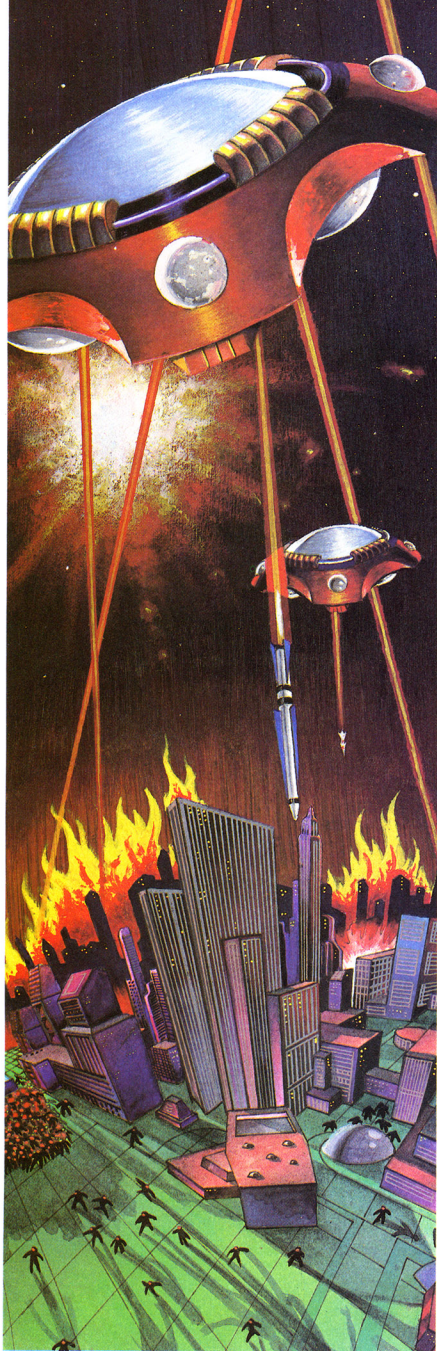
veling further without a crack-up in the time allotted. Atari has spoken of pruning some of the older games from its line to make room on the retail shelves for new arrivals, so rocket jockeys may want to pick up 'Spaceship' before it becomes an unobtainable collector's item.

A Space Odyssey²

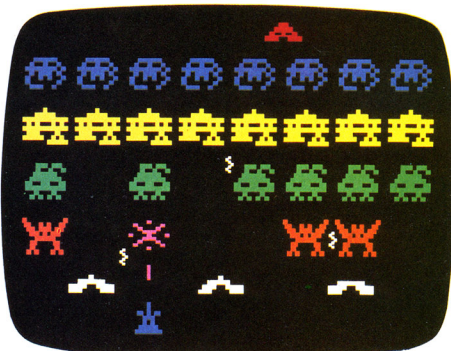
UFO, this year's Arcade Award winner at 'Best Science Fiction Game,' is only the latest in a noble series of futuristic

INVADERS FROM HYPERSPACE





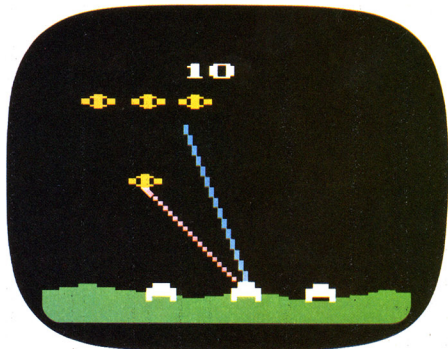
SPACE ARMADA



triumph if it fakes your mini-fleets out of position and then streaks in on the mother ship.

The new year will bring good news for Intellivision owners who've been lamenting the lack of arcade-style games with a science fiction twist. The company will shortly release not one, but two such games—**Astrosplash** and **Space Armada**. The former is a struggle against careening asteroids and homicidal monsters, while the latter puts the player against phalanxes of marching invaders.

The result is **Laser Blast**, the program that stands the original **Space Invaders** concept on its head. Instead of covering behind shields at the bottom of the screen, the arcader directs saucers on a mission of retribution against the extra-terrestrials' installations on the surface of the moon. The object is to obliterate as many of the three-gun emplacements as possible, before the creatures' mighty laser cannons turn your forces into so much scrap. An added complication is that the surface batteries are protected



LASER BLAST

Striking Back at the Aliens

Ever had the feeling, when playing one of the many invasion games, that you'd like the chance to strike an offensive blow against the monsters? That thought evidently occurred to the folks at Activision, too.

by an invisible shield wall. As the game progresses, the arcader must bomb installations with progressively stronger shields that prevent the saucers from coming in too low.

The defending aliens have an uncanny ability to radar-track the assault ships, forcing the arcader to keep moving constantly, even while trying to aim the laser.

MICROCOMPUTERS

Scoring Big at the Starcade

No matter which micro-computer you may own—or intend to buy—one thing is certain: There's a wide choice of action games with a science fiction slant offered for your favorite machine.

Since **Space Invaders** has enjoyed success longer than most other designs, it is consequently the most widely available SF program at the present time. Atari makes the "official" version for its 400 and 800 systems, and this edition packs at least as much glitter as the coin-op original. Though the title was initially marketed on cassette, Atari has now seen the error of its ways and introduced the same program on instant-loading ROM cartridges.

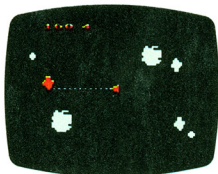
Creative Computing currently makes the most popular 'SI' programs for both the Apple II and Sorcerer under the name **Super Invasion**. Acorn Software performs the same service for TRS-80 users with **Invaders from Space**.

The best entries among the **Galaxian**-style programs are **Alien Typhoon** (Broderbund) for the Apple and the newly released **Galactic Chase** (Spectrum) for the Atari 800. Big Five Software, which specializes in arcade games for the TRS-80 Model I/III, offers **Galaxy Invasion**.

There are two strong variations of **Asteroids** for the Apple II. Quality Software has **Meteoroids in Space**, while California Pacific has replaced the standard hunks of space junk with apples of various sizes in its irresistibly cute **Apple-oids**. Big Five is the source for **Super Nova** for the TRS-80.

It's usually a safe bet that any science fiction game that registers well in the commercial amusement centers will soon

be playing on home screens. **Defender**, for instance, has already spawned **Protector** (Crystalware) and **Gorgon** (Sirius Software), with more to come. Atari has purchased the home arcade rights to 'Defender,' so owners of its systems will soon have another first class SF arcade extravaganza.



ATARI 'ASTEROIDS'

One Against the Galaxy

You're one of the Furies, an interstellar white knight in high-technology battle armor. Your mission: free a planet from the imperial yoke of oppression. That's the background of



IN SPACE

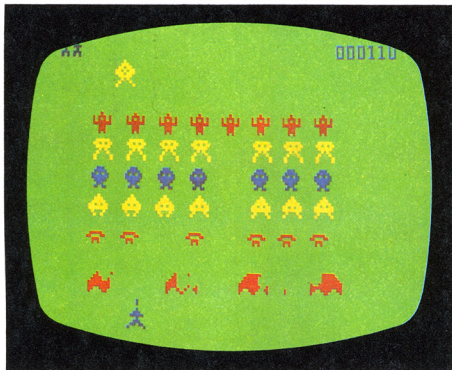


Star Warriors (Automated Simulations) an action-adventure for both the Atari and Apple II. Wearing a suit reminiscent of "Starship Troopers" by Robert A. Heinlein, your on-screen representative is given one of two tasks. The Fury can either blast, pillage and destroy as a diversion while another (unseen) avenger assassinates the cruel military governor, or else you can take the bull by the horns and search out and destroy the petty tyrant yourself.

Although most role-playing adventures for the computer are resolutely oriented toward fantasy, science fiction fans aren't entirely out in the cold. Avalon-Hill presents **Empire of the Over-Mind** as a text program for all major systems, while Sentient Software has gotten SF writer Michael Berlyn to create **Oo-Topos** for Apple II arcaders. Coming soon from Sentient is **Cyborg**, in which the player manipulates a half-man, half-machine character through a succession of exploits. The new wrinkle is that the computer functions as the Cyborg's synthetic brain, offering information and opinions about the surrounding world.

And for those who are over

TRS-80 INVADER GAME



the age of 21. On-Line Systems is offering, for the Apple II, a little item called **Softporn Adventure**. It lets the gamer wander through a Las Vegas-type pleasure city of the future.

Super Star Wars

Strategic space war games have been around almost as long as the micro-computers on which they are played. Programs modeled on the universe presented in the "Star

Trek" television series won the hearts of many players right from the start.

You had to be a real science-fiction fanatic to love them, though, because they limped along without the benefit of sound or graphics. This state of affairs changed abruptly when Atari brought forth **Star Raiders** for its then-new 400 and 800 computers.

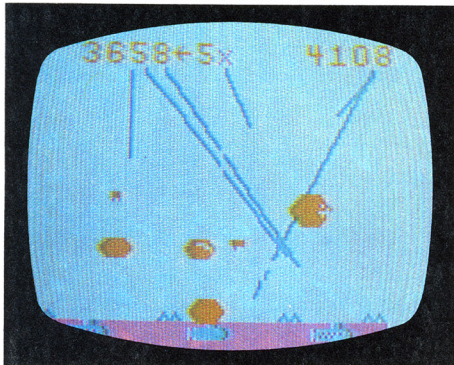
Winner of the 1982 Arcade Award as "Best Computer Game of the Year," this is one

title that has earned every bit of the praise which has been heaped upon it by reviewers and players alike. It combines compelling visuals with a dual-level game that furnishes lots of ship-to-ship dogfighting within the context of a galaxy-spanning conflict between humans and an implacably aggressive alien race. A choice of four levels of skill allows arcaders to steadily increase the ability of the opposition as their own competence grows.

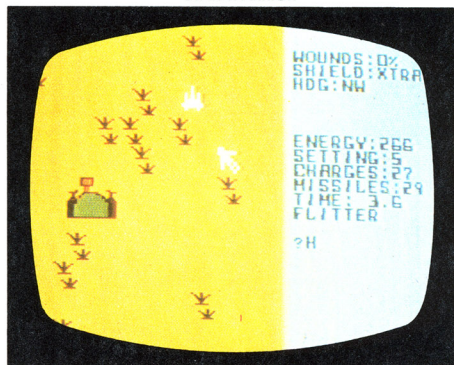
The Warp Factor (Strategic Simulations) resembles the primitive programs mentioned earlier in that it, too, is based on the "Star Trek" mythos, but there the similarity ends. This is a finely constructed game that gives would-be Kirks the opportunity to direct fleet-level actions against a variety of antagonists, all of whom will be familiar to loyalists of the TV show and theatrical movie.

"The Warp Factor" is that rarity, a game that is flexible enough to allow minute detailing of each ship without unduly bogging down multi-unit movement.

TRS-80 MISSILE DEFENSE GAME



STAR WARRIOR



Two pictures are worth

*Atari vs. Intellivision?
Nothing I could say would be more
persuasive than what your own
two eyes will tell you. But I can't
resist telling you more.*

—George Plimpton—



ATARI

HOME RUN™ BASEBALL

INTELLIVISION

MAJOR LEAGUE BASEBALL™

a thousand words.

It's obvious how much more realistic Intellivision graphics are. But take a closer look. Notice the Intellivision players. They've got arms and legs like real players do. Look at the field. It actually looks more like a real baseball field. If you compare the two games, I think you'll find that Intellivision looks a lot more like the real thing.



Atari Casino™ No dealer.



Intellivision Las Vegas Poker & Blackjack. You play cards with a shifty-eyed dealer.

More about action

You can see how much more realistic Intellivision looks. What we can't show you here is how much more realistically it moves. If you could compare the two, I think you'd see that Intellivision has smoother and more life-like movement than Atari.



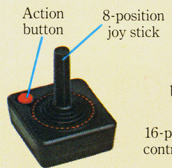
Atari Pele's Championship Soccer™ players



Intellivision NASL Soccer™ players

More about control

If you've ever played a video game, you know how important control is. And if you held these two control units in your hand, you'd know Intellivision gives you more. The Atari hand controller offers only 8 positions and one button. The Intellivision hand controller has 16 positions and 4 buttons. So Intellivision allows



ATARI JOY STICK HAND CONTROLLER

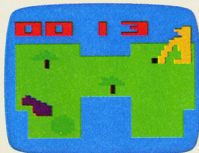


INTELLIVISION HAND CONTROLLER

you to maneuver players and objects in more directions with greater precision and accuracy. And the Intellivision controller is compatible with the entire library. With Atari, some games require the purchase of additional control units.

More about challenge

You can't see it here, but I have found that in many of the Atari programs, the game play is rather simplistic. With Intellivision, the game play is more sophisticated. And that makes Intellivision more challenging. With Intellivision PGA Golf for instance, you get nine different clubs to choose from. With Atari Golf, you have to make do with just one club. Greater attention to detail is a quality I have found in all of the Intellivision games. Making them more realistic. And more challenging.



Atari Golf



Intellivision PGA Golf™

More about libraries

Both Intellivision and Atari have large libraries. But there really isn't any way you can tell which library is better, until you play with both. Once you compare the two systems for challenge, sophistication and continued interest, I'm confident you'll choose Intellivision. But don't just take my word for it. Visit your local dealer and decide for yourself.



MATTEL ELECTRONICS®
Intellivision™
 Intelligent Television

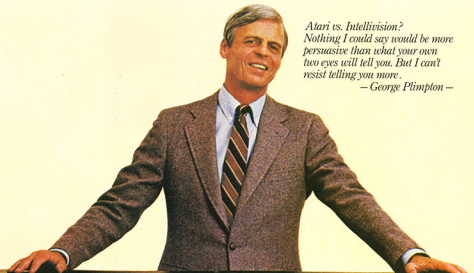
For your nearest dealer call 1 (800) 323-1715
 In Illinois 1 (800) 942-8881

*Trademarks used under license from designated owners.
 © Mattel, Inc. 1981. All Rights Reserved.

Two pictures are worth a thousand words.

*Atari vs. Intellivision?
Nothing I could say would be more
persuasive than what your own
two eyes will tell you. But I can't
resist telling you more.*

— George Plimpton —



ATARI
HOME RUN™ BASEBALL

INTELLIVISION
MAJOR LEAGUE BASEBALL™

It's obvious how much more realistic Intellivision graphics are. But take a closer look. Notice the Intellivision players. They've got arms and legs like real players do. Look at the field. It actually looks more like a real baseball field. If you compare the two games, I think you'll find that Intellivision looks a lot more like the real thing.



Atari Casino™ No Dealer.



Intellivision Las Vegas Poker & Blackjack. You play cards with a shifty-eyed dealer.

More about action

You can see how much more realistic Intellivision looks. What we can't show you here is how much more realistically it moves. If you could compare the two, I think you'd see that Intellivision has smoother and more life-like movement than Atari.



Atari Pole's Championship Soccer™ players



Intellivision NASL Soccer™ players

More about control

If you've ever played a video game, you know how important control is. And if you held these two control units in your hand, you'd know Intellivision gives you more. The Atari hand controller offers only 8 positions and one button. The Intellivision hand controller has 16 positions and 4 buttons. So Intellivision allows



ATARI JOY STICK
HAND CONTROLLER

INTELLIVISION
HAND CONTROLLER

you to maneuver players and objects in more directions with greater precision and accuracy. And the Intellivision controller is compatible with the entire library. With Atari some games require the purchase of additional control units.

More about challenge

You can't see it here, but I have found that in many of the Atari programs, the game play is rather simplistic. With Intellivision, the game play is more sophisticated. And that makes Intellivision more challenging. With Intellivision PGA Golf for instance, you get nine different clubs to choose from. With Atari Golf, you have to make do with just one club. Greater attention to detail is a quality I have found in all of the Intellivision games. Making them more realistic. And more challenging.



Atari Golf



Intellivision PGA Golf™

More about libraries

Both Intellivision and Atari have large libraries. But there really isn't any way you can tell which library is better, until you play with both. Once you compare the two systems for challenge, sophistication and continued interest, I'm confident you'll choose Intellivision. But don't just take my word for it. Visit your local dealer and decide for yourself.



MATTEL ELECTRONICS®
Intellivision™
Intelligent Television.

For your nearest dealer call 1 (800) 323-1215
In Illinois 1 (800) 942-8881

© 1983 Mattel Electronics, Inc. All Rights Reserved.

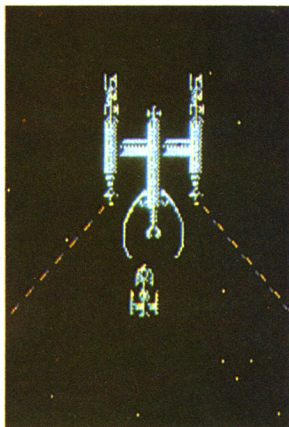
A Little History Lesson

If science fiction themes dominate any area of electronic gaming, it's certainly the coin-ops. Since **Space Invaders** first blasted its way into gamers' hearts four years ago, manufacturers of commercial fun machines have gone SF-crazy. For the last 36 months, the amusement center "top 10" has included no fewer than five science fiction games at any given time.

Once it saw that 'SI' would be a runaway hit in this country, as it was in Japan, Midway lost no time in getting the rights to another winner from the Land of the Rising Sun. It made a deal with Namco for **Galaxian**—and the company has not had reason to regret the move. The alien bird-monsters are a fixture of every game parlor these days, and 'Galaxian' has developed into an enduring classic.



PLEIADES

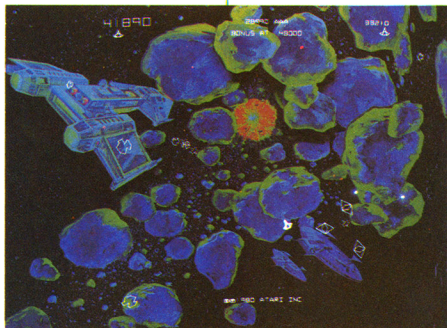


ASTRO-BLASTER

Multi-Phase Mayhem

If one-scenario games are good, reasoned some manufacturers, multi-scenario con-

ASTEROIDS BACKBOARD



tests would be even better. This judgment has proven uncannily accurate.

Gorf (Bally) and **Phoenix** (Centuri) introduced the concept only within the last year or

so, and already numerous games like **Pleiades** and **Vanguard** have joined them in the commercial amusement parlors. Obviously, skilled arcaders prefer the idea of a dozen or so mini-games to repeating the same play sequence 10 or 12 times in a row.



BATTLEZONE PLAYFIELD

Recent entries even bring the average gamer into the fold. Throwing another two-bits into the coin slot makes the action resume from the point at which the player met disaster. Thus all participants now have

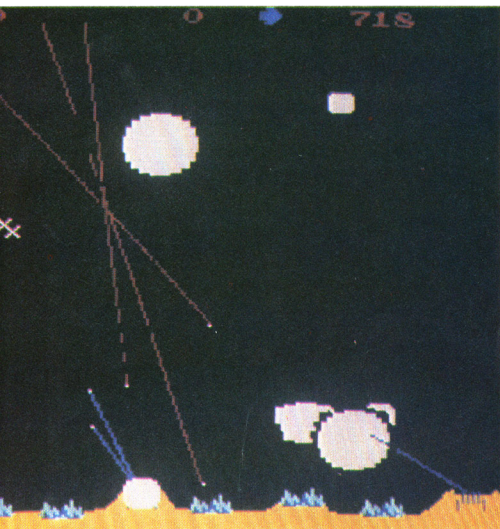
a chance to see the full range of scenarios, even if they don't have the ability to race through all the phases in a single round.

Talk to the Aliens

Space Invaders was the first coin-op contest in which the targets could fire back at the player. Thanks to some further advances in computer science, the machines have started to talk back, too. They not only blow up your ship, they gloat over their achievement.

The combination of recently developed voice-computer-chips and the use of pre-recorded messages has bestowed the power of speech upon such titles as **Berserk** (Stern), **Astro-Blaster** (Sega/Gremlin) and **Vanguard** (Centuri).

These days, when a player activates a machine, he or she is liable to come face-to-whatever with aliens who issue mocking challenges like, "You couldn't hit the broad side of a super-nova!" as they fight. Sometimes, of course, the machine's voice assumes a more helpful stance, as in the games in which the program



THE COSMIC QUARTER- SNATCHERS COMETH



announces, "You're now coming up to the next scenario —get ready."

The next step? Probably to have the arcader tell the machine his name so that the device can directly address the player throughout the match.

Earth's Last Hope

Defender (Williams) takes a different tack than most of the other popular coin-ops. Earth has lost a war with a race of space invaders, and the arcader, as commander of the last Defender-class spaceship, must save any surviving Terrans and blast it out with the baddies from space.

The gamer pilots the powerful craft along an ever-changing horizontally scrolling playfield, looking for survivors below and attackers from a variety of directions. Since the scenery is always different, there's no chance of getting bored by a couple of hours of battling on the same playfield.



A Little History Lesson

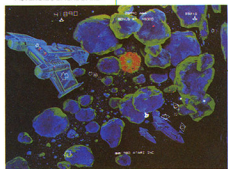
If science fiction themes dominate any area of electronic gaming, it's certainly the coin-ops. Since **Space Invaders** first blasted its way into gamers' hearts four years ago, manufacturers of commercial fun machines have gone SF-crazy. For the last 36 months, the amusement center "top 10" has included no fewer than five science fiction games at any given time.

Once it saw that 'SF' would be a runaway hit in this country, as it was in Japan, Midway lost no time in getting the rights to another winner from the Land of the Rising Sun. It made a deal with Namco for **Galaxian**—and the company has not had reason to regret the move. The alien bird-monsters are a fixture of every game parlor these days, and **Galaxian** has developed into an enduring classic.

Multi-Phase Mayhem

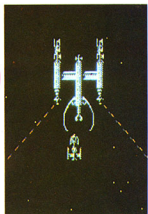
If one-scenario games are good, reasoned some manufacturers, multi-scenario con-

ASTEROIDS BACKBOARD



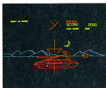
tests would be even better. This judgment has proven uncannily accurate.

Gorf (Bally) and **Phoenix** (Centuri) introduced the concept only within the last year or



ASTRO-BLASTER

so, and already numerous games like **Pleiades** and **Vanguard** have joined them at the commercial amusement parlors. Obviously, skilled arcaders prefer the idea of a dozen or so mini-games to repeating the same play sequence 10 or 12 times in a row.



BATTLEZONE PLAYFIELD

Recent entries even bring the average gamer into the fold. Throwing another two-bits into the coin slot makes the action resume from the point at which the player met disaster. Thus all participants now have

a chance to see the full range of scenarios, even if they don't have the ability to race through all the phases in a single round.

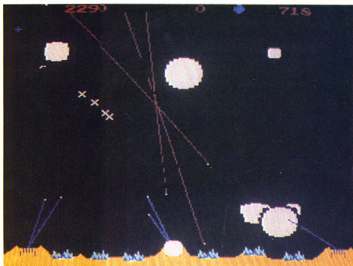
Talk to the Aliens

Space Invaders was the first coin-op contest in which the targets could flee back at the player. Thanks to some further advances in computer science, the machines have started to talk back, too! They not only blow up your ship, they gloat over their achievements.

The combination of recently developed voice-computer-chips and the use of pre-recorded messages has bestowed the power of speech upon such titles as **Berserk** (Stern), **Astro-Blaster** (Sega/Gremlin) and **Vanguard** (Centuri).

These days, when a player activates a machine, he or she is liable to come face-to-whatever with aliens who issue mocking challenges like, "You couldn't hit the broad side of a super-nova!" as they fight. Sometimes, of course, the machine's voice assumes a more helpful stance, as in the games in which the program

MISSILE COMMAND COIN-OP



THE COSMIC QUARTER-SNATCHERS COMETH



announces, "You're now coming up to the next scenario—get ready!"

The next step? Probably to have the arcader tell the machine his name so that the device can directly address the player throughout the match.

Earth's Last Hope

Defender (Williams) takes a different tack than most of the other popular coin-ops. Earth has lost a war with a race of space invaders, and the arcader, as commander of the last Defender-class spaceship, must save any surviving Terrans and blast it out with the baddies from space.

The game plots the powerful craft along an ever-changing horizontally scrolling playfield, looking for survivors below and attackers from a variety of directions. Since the scenery is always different, there's no chance of getting bored by a couple of hours of battling on the same playfield.

ARCADE AWARDS



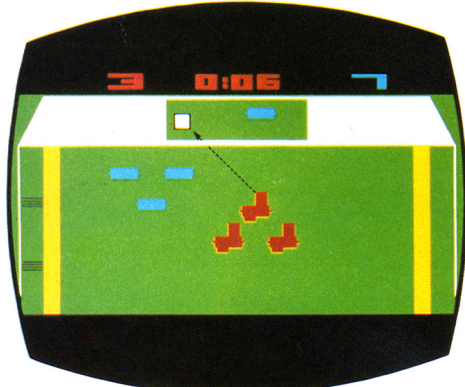
Forget about the Oscars, Emmys and Tonys—here come the 1982 Arkies! The third annual Arcade Awards, this year sponsored jointly by **Video** magazine and **Electronic Games**, honor outstanding achievements in the field of electronic arcading in the year 1981.

And what a banner year it was! Manufacturers responded to the tremendous increase in the popularity of electronic games by introducing a record number of titles. Overall quality also took a giant leap forward, resulting in intense competition for every one of the 13 major prizes. Many games that had to be content with an Honorable Mention in the 1982 Arcade Awards would have been winners in either of the two previous years.

Before proceeding to an analysis of the winners, let's run through the ground rules. Games introduced into national distribution during 1981 were eligible, except for a few 13th-hour entries which will be held over for consideration by the 1983 Arcade Awards committee. No title can win more than one Arkie in a given year, although multiple Honorable Mentions are allowed. New for this year are Arkies for the best computer games, a logical extension of the original concept.



CHAMPIONSHIP SOCCER

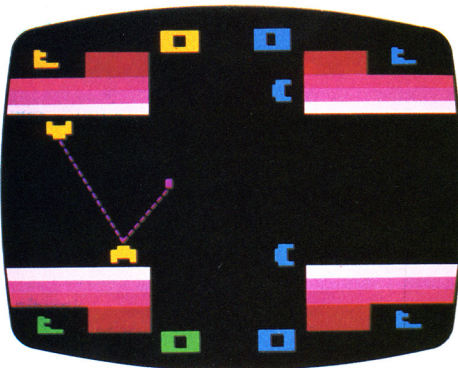


Videogame of the Year: Asteroids (Atari)

Some games are ideal for play at home. Others are perfect for the family amusement centers. But only a select few possess the special qualities—easy-to-grasp essentials and a wide enough variety of action to stand up to hundreds of replays—to hit it big in all corners of the electronic gaming world.

Asteroids is such a game. Last year, it captured the Arkie for the best coin-operated game. This time, solidifying its standing as one of arcading's authentic classics, 'Asteroids' was the unanimous choice as Videogame of the Year.

Eagerly anticipated before its release, 'Asteroids' more than lived up to its advance billing. Atari scientists have done a marvelous job translating the quadrascan original to the home screen, actually inventing a new process that "fools" the VCS console into reading a program twice as complex as any previous ROM cartridge.



WARLORDS

DIE AWWARDS

Commentary by Bill Kunkel & Frank Laney Jr.

The VCS version even adds color to the game, an element missing from the original. (Quadrascan is currently a black & white technology.) Add in the most distinctive sound effects since **Space Invaders**, and the result is a truly satisfying gaming experience.

Honorable Mention: Quest for the Rings (Odyssey)

The first boardgame/video-game hybrid is a lot more than just a design curiosity. It's a solid, playable cartridge that casts two arcaders as a team of adventurers attempting to defeat the forces of evil in a land of magic, mystery and danger.

Honorable Mention: Missile Command (Atari)

Here's another Atari coin-op success that has made it big in the home arcade market. It takes quick reflexes and good marksmanship to save the six cities from destruction by missiles from space.

Honorable Mention: UFO (Odyssey)

This program gives new meaning to the phrase "fast action". Blasting away at the three types of marauding ufo's is the electronic gaming version of riding one of those mechanical bulls. Blink once, and it's all over.

Most Innovative Game: Quest for the Rings (Odyssey)

There's no question that Odyssey has charted a bold new path for videogames with this adventure fantasy cartridge. Blending off-screen movement on a colorful map-board with an electronic combat game can only be called inspired. By assigning some of the details of play to the



human participants, Odyssey was able to create a game with lots of variable factors to keep the action continuously fresh while still providing the kind of visual pyrotechnics arcaders adore.

Another ingenious feature is that the program makes use of the Odyssey keyboard to allow players to customize the stocking of the various dungeons and labyrinths that lie beneath the castles on the map. This makes every play session unique, while preventing adventurers from developing "sure win" strategies that would ultimately rob **Quest for the Rings** of

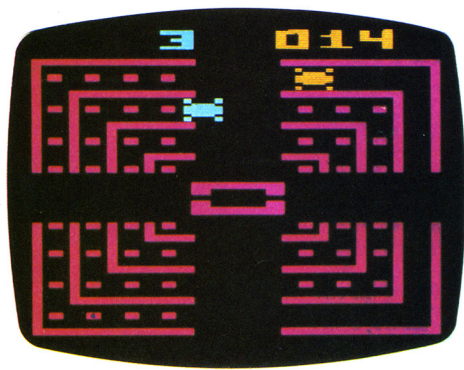
much of its excitement.

Honorable Mention: Freeway (Activision)

With so many electronic games being merely refinements of existing hits, it's refreshing when a new title introduces a totally original brand of play-action. A few minutes of steering the chicken through 10 lanes of on-coming traffic rarely fails to put a smile on the player's face.

Honorable Mention: Asteroids (Atari)

The importance of Atari's achievement of getting a videogame system to run an 8,000-byte program can't be over-estimated. This development opens the way for a whole generation of more sophisticated cartridges.



Best Competitive Game: Tennis (Activision)

Now that so many of the new home videogames are adaptations of big successes in the coin-op field, there's a growing scarcity of authentic head-to-head, two-player contests. (Most two-player games are played in rotation, not simultaneously.)

DODGE 'EM

ARCADE AWARDS

Commentary by Bill Kunkel & Frank Laney Jr.



Forget about the Oscars, Emmys and Tonys—here come the 1982 Arkies! The third annual Arcade Awards, this year sponsored jointly by **Video** magazine and **Electronic Games**, honor outstanding achievements in the field of electronic arcading in the year 1981.

And what a banner year it was! Manufacturers responded to the tremendous increase in the popularity of electronic games by introducing a record number of titles. Overall quality also took a giant leap forward, resulting in intense competition for every one of the 13 major prizes. Many games that had to be content with an Honorable Mention in the 1982 Arcade Awards would have been winners in either of the two previous years.

Before proceeding to an analysis of the winners, let's run through the ground rules. Games introduced into national distribution during 1981 were eligible, except for a few 13th-hour entries which will be held over for consideration by the 1983 Awards committee. No title can win more than one Arkie in a given year, although multiple Honorable Mentions are allowed. New for this year are Arkies for the best computer games, a logical extension of the original concept.



CHAMPIONSHIP SOCCER

Videogame of the Year: Asteroids (Atari)

Some games are ideal for play at home. Others are perfect for the family amusement centers. But only a select few possess the special qualities—easy-to-grasp essentials and a wide enough variety of action to stand up to hundreds of replays—to hit it big in all corners of the electronic gaming world.

Asteroids is such a game. Last year, it captured the Arkie for the best coin-operated game. This time, solidifying its standing as one of arcading's authentic classics, "Asteroids" was the unanimous choice as Videogame of the Year.

Eagerly anticipated before its release, "Asteroids" more than lived up to its advance billing. Atari scientists have done a marvelous job translating the quadrascan original to the home screen, actually inventing a new process that "fools" the VCS console into reading a program twice as complex as any previous ROM cartridge.

The VCS version even adds color to the game, an element missing from the original. (Quadrascan is currently a black & white technology.) Add in the most distinctive sound effects since **Space Invaders**, and the result is a truly satisfying gaming experience.

Honorable Mention: Quest for the Rings (Odyssey)

The first boardgame/video-game hybrid is a lot more than just a design curiosity. It's a solid, playable cartridge that casts two arcaders as a team of adventurers attempting to defeat the forces of evil in a land of magic, mystery and danger.

Honorable Mention: Missile Command (Atari)

Here's another Atari coin-op success that has made it big in the home arcade market. It takes quick reflexes and good marksmanship to save the six cities from destruction by missiles from space.

Honorable Mention: UFO (Odyssey)

This program gives new meaning to the phrase "fast action": Blasting away at the three types of marauding ufo's is the electronic gaming version of riding one of those mechanical bulls. Blink once, and it's all over.

Most Innovative Game: Quest for the Rings (Odyssey)

There's no question that Odyssey has charted a bold new path for videogames with this adventure fantasy cartridge. Blending off-screen movement on a colorful map-board with an electronic combat game can only be called inspired. By assigning some of the details of play to the



ASTEROIDS

much of its excitement.

Honorable Mention: Freeway (Activision)

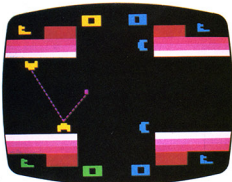
With so many electronic games being merely refinements of existing hits, it's refreshing when a new title introduces a totally original brand of play-action. A few minutes of steering the chicken through 10 lanes of on-coming traffic rarely fails to put a smile on the player's face.

Honorable Mention: Asteroids (Atari)

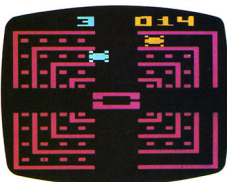
The importance of Atari's achievement of getting a videogame system to run an 8,000-byte program can't be over-estimated. This development opens the way for a whole generation of more sophisticated cartridges.

Best Competitive Game: Tennis (Activision)

Now that so many of the new home videogames are adaptations of big successes in the coin-op field, there's a growing scarcity of authentic head-to-head, two-player contests. (Most two-player games are played in rotation, not simultaneously.)



WARLORDS



DODGE 'EM

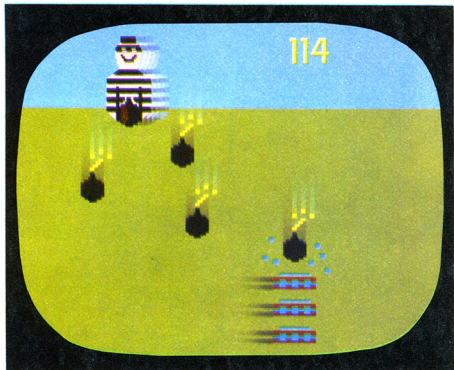
That's why **Tennis**, designed by Al Miller, is such a welcome addition to the Activision line. The program provides a choice of two skill levels, which can be set individually.

Honorable Mention: Ice Hockey (Mattel)

Ice Hockey is a particularly good competitive game, because mere manual dexterity isn't necessarily the ticket to an electronic Stanley Cup. Even if your fingers are more numb than nimble, you can stay in the game with pinpoint passing and carefully coordinated offensive thrusts.

Honorable Mention: Warlords (Atari)

Home arcaders in the habit of inviting a bunch of friends over for a night of gaming will definitely want this one. **Warlords** is the first cartridge playable by four participants.



KABOOM!

Best Solitarie Game: Missile Command (Atari)

The best thing about **Missile Command**, from the solo gamer's point of view, is that it has the most extensive options for varying the difficulty of any video game. Good players always find it annoying to have to start each game at a level of play suitable for only the most inexperienced new-comer. With 'Missile Command', the arcader can select the precise starting point that's appropriate for his or her ability.

Honorable Mention: Dodge 'Em (Atari)

The very first gobble game to reach the market makes a pleasant solitaire pastime. Most arcaders quickly master the trick of dealing with one computer-driven crash car, but it gets a lot trickier after that second robot-controlled auto starts zooming from lane to lane.

Best Science Fiction Game: UFO (Odyssey)

Terming the pace of **UFO** "fast" is a little like referring to professional wrestler Andre the Giant as "tall". A typical game of 'UFO' is a symphony of multi-hued explosions that seems to end almost before it starts. The same experts who measure a successful round of **Space Invaders** or **Asteroids** by the number of hours the machine takes to demolish the player's entire arsenal would be happy to last 10 minutes in 'UFO'.

As captain of an Earth Federation cruiser, the arcader must face peril from every direction in the form of three distinct types of unidentified flying objects.

Honorable Mention: Laser Blast (Activision)

This is the cartridge that gives grizzled veterans of alien invasion games the chance to turn the tables. The arcader directs a fleet of flying saucers that must wipe out a series of enemy ground installations.

Best Sports Game: USAC Auto Racing (Mattel)

This race game has just about everything previous attempts to simulate the sport have lacked. The cars look—and steer—like cars, and they roar around realistic tracks.

Drivers choose from a selection of autos with differing acceleration, cornering, braking and speed characteristics. The courses are also a pleasingly varied lot, ranging from fairly easy to tracks that feature turns so sharp that only the most skillful will be able to avoid a costly spin-out.

Honorable Mention: Championship Soccer (Atari)

Like many of the Atari sports games, **Championship Soccer** would never win a prize as the most realistic simulation. But it deserves a great deal of praise for reproducing a lot of the feel of the actual sport in an easily learned and fun-to-play format. An added bonus is that it plays very nicely as a solitaire contest, something that's rare among sports titles.

Honorable Mention: Tennis (Activision)

The trapezoidal field elevates this cartridge above the typical pony-style tennis games that once dominated the home arcade scene.

Best Pong Variant: Warlords (Atari)

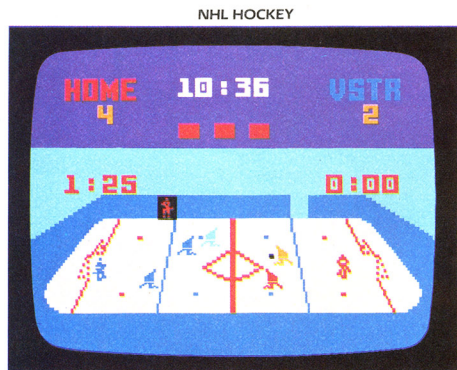
Ball-and-paddle games have certainly come a long way since the days when pioneering arcaders huddled in front of a screen with a white line down the center and a block-like paddle on each side. **Warlords** is a four-way battle with a medieval theme. Players attempt to batter down the walls of their opponents' castles and slay the monarchs inside.

Honorable Mention: Blockout/Breakdown (Odyssey)

There's nothing new about games in which arcaders attempt to dismantle multi-colored walls by firing projectiles against them using a paddle to keep the "ball" in play. The added ingredient is a troupe of hard-working demons that rebuilds the barriers as fast as the bricks disappear.

Honorable Mention: Whizball (Zircon)

There's really no other videogame quite like this one. Players fire pellets called "whizballs" at gigantic floaters in an attempt to knock one through the opposing goal.



Best Audio-Visual Effects: Kaboom! (Activision)

Charming graphics turn a pleasant, if unexceptional, title into a true videogame classic. From the hissing fuses of the explosives to the maniacal grin on the face of the mad bomber when one of his devices gets past the player's water buckets, **Kaboom!** is a real visual treat.

Honorable Mention: Quest for the Rings (Odyssey)

One of the joys of this game is the way the designer has given each type of monster not only a unique look, but a distinctive mode of movement and attack. Having to watch a spydroth tyrantulis drop down on the head of your hero and suck him into its gaping maw is a sight the electronic adventurer will not soon forget.

Best Commercial Arcade Game: Pac-Man (Namco/Midway)

Can a game without aliens, missiles and explosions make it in the family amusement center? **Pac-Man** proved conclusively that the answer is, "Yes!" Thanks in part to its tremendous appeal to female arcaders, 'Pac-Man' machines gobble up quarters nearly as fast as the little on-screen pac-man scoops up the point-scoring pellets in this maze-chase program.

Delightful audio-visual effects further enhance one of the best-designed of all the coin-op games. The most interesting play-feature is that while the pac-man ordinarily must flee from the rovers, it becomes the aggressor after gulping down one of the special energizers. Then it is the rovers' turn to run, because the arcader can score big bunches of bonus points by gobbling them up.

Honorable Mention: Defender (Williams)

Truly original coin-op games can be counted on the fingers of one hand. This is one of them. Players maneuver an armed plane over the horizontally scrolling surface of a planet, battling the winged aliens and attempting to save the doomed inhabitants.

Honorable Mention: Battlezone (Atari)

Early versions of this game, in which arcaders pilot super-tanks on the surface of the moon, had players peering through a periscope. Atari deep-sexed the periscope when the company realized that people enjoy watching the hunt for the enemy vehicles almost as much as taking the controls themselves. Still, the original edition does have a special flavor, putting the player in splendid isolation even in the middle of a crowded amusement center.

Computer Game of the Year: Star Raiders (Atari)

"Which do you want, strategy or graphics?" That used to be a question frequently asked of computerists by game software manufacturers. **Star Raiders**, for the Atari 400 and 800 systems, changed all that almost overnight. This space war simulation blends a tactical shoot-out with a galaxy-spanning strategic-level situation—and puts it all together with some of the best game visuals ever seen on a computer monitor.

Four different missions, each a bit more difficult than the last, help arcaders get a handle on the 'Star Raiders' universe. The complex after-action scoring system is also a joy, providing even novice star warriors meaningful goals at which to aim.

Best Computer Action Game: Jawbreaker (On-Line)

This is the program that, more than any other, demonstrates the excellence of the Atari computers as game-players. The multi-voice rendition of "The Candy Man" that serves as the opening theme music, to cite an obvious example, could not have been done on any other micro.

But there's a lot more to **Jawbreaker** than just bells and whistles. Beneath the surface trimmings lies a superb home variation on this year's Arcade Award winner in the coin-op division, **Pac-Man**. This time, though, the idea is a merry spree in a candy shop. A mouthful of chomping teeth crunches the hard candies that line the mazelike paths, chased from one end of the store to the other by a gang of four bullies.



Best Computer Sports Game: Computer Baseball (Strategic Simulations)

Statistically-minded sports freaks have participated in face-to-face and mail leagues using non-electronic replay simulations for over 30 years. Now computer owners can do the same with this outstanding portrayal of diamond drama.

The best thing about **Computer Baseball** is that all the complicated play mechanics are buried in the computer, where they belong. Managers can, therefore, concentrate on making many of the same decisions that folks like Tom Lasorda and Billy Martin deal with every summer day.

Clearly, the designers know as much about baseball as they do about computers. Key elements, such as having to properly warm up a relief pitcher, that are neglected in even the best manual simulations get consideration here. And though the graphics aren't arcade-quality, they at least give the managers a visual representation of what's happening on the field.

"Computer Baseball" is a definite home run.

Best Computer Adventure: Empire of the Over-Mind (Avalon-Hill)

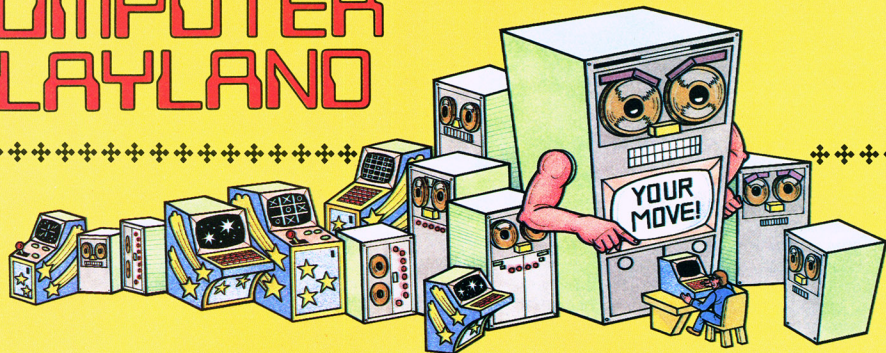
Although **Empire of the Over-Mind** resembles many other text adventures in terms of basic presentation, the marvelously inventive plot makes it an especially absorbing and involving experience for electronic heroes. In particular, the fact that it does not require the arcader to solve a series of puzzles in lock-step order must be considered a tremendous plus.

The program pits the adventurer against a sinister intelligence, the Over-mind, which holds humankind under its thumb on two planets. There's more than one way to attain the goal of overthrowing this tyranny, so when a particular situation seems insoluble, it's always possible to back up, go to another location and try something else.

'Empire of the Over-Mind' is one of the best arguments for the idea that, even though programs with graphics are starting to hit the market there will continue to be a place in computer arcading for well-written text adventures.



COMPUTER PLAYLAND



Raster Blaster (BudgeCo./Apple II/48K) is the first computer simulation of a pinball machine that delivers what it promises. When immersed in an actual round of play, it is easy for the gamer to forget that "Raster Blaster" is only an image on a television screen.

Immediately upon completion of the booting process, a stunning array of flashing lights and electronic "neon" greets the player. Arcaders can then choose to either play alone or against up to three other pinballers.

There are two levels of difficulty, and most folks will want to begin with the easy one. The ball has less chance of falling by the wayside, giving gamers a chance to get the feel of the "table."

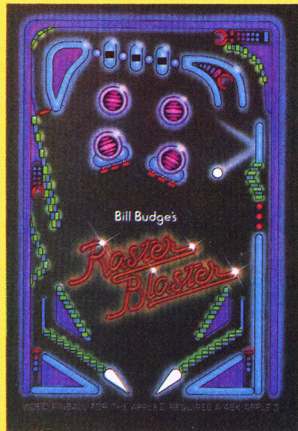
The game is played using a pair of paddles. The action buttons had better be in good working order, too, since they serve as the controls for the flippers.

As with any pinball machine, the object is to beat the game for all it's worth. The geography of the playfield provides plenty of action—and lots of opportunities to prove your flipper-game mastery. In particular, the four bumpers located near the top of the field are very lively. The two lowest bumpers sport flags that blink when hit. Turning them on is worth 5,000 points and causes "Raster Blaster" to energize its claws.

The machine's grabbers can hold two balls on the table indefinitely, until the third one is also caught. Then it creates a storm of chaos by releasing all of them, much like a real pinball machine, **Fireball**. This also earns the arcader a 15,000-point bonus, so the mayhem is not without some rhyme or reason.

Illuminating the three flags on the right hand side of the field lights an orange

"B" and tacks 10,000 points onto the score. The final hurdle to conquer consists of a set of four lanes at the top of the screen. If a ball goes through all of them on the same round, an "R" lights to ac-



RASTER BLASTER

knowledge the achievement, and the machine increases the arcader's total by 10,000.

Bill Budge is a member of that elusive fraternity of programmers who have an incredible familiarity with the Apple's inner workings. "Raster Blaster" seems to do some things that one would think were beyond the computer's capabilities!

Only one programming bug turned up, and it occurred only once. The ball became stuck in the right hand lane, and the game had to be re-booted to con-

tinue play. It was hard to fight down the urge to apply a little "english" by whacking the side of the television set.

Bill Budge deserves congratulations for the excellent graphics work on this program. "Raster Blaster" is a superior effort that is packed with fun. (Leigh Goldstein).

Falcons (Picadilly Software/Apple II/48K disk), based on the popular **Phoenix** coin-op, is one of the truest renditions of a commercial arcade game available today.

The player is given three ships and must clear the screen four times before coming face-to-face with the alien mothership. The meanies constantly move and shoot, while they transform themselves into strange bird-like creatures. Pressing the space bar provides five seconds of shield protection. This must be used sparingly, however, since there is a five-second recharging period before they can be energized again.

The first wave of aliens appears in a format that will be familiar to players of alien invasion games. After the player clears the screen, the next batch emerges in oval formation. The third and fourth fields consist of small blue and orange dots that evolve into funny-looking birds, which dive and collide with great regularity.

Getting to the mothership seems like a great achievement, but in reality, it's only the beginning. This reviewer has not yet succeeded in destroying the alien nested within the huge craft.

"Falcons" is tough. The extreme difficulty of the game lends itself to the kind of repeat playing characteristic of home arcading.

Pinball Goes Video!

One important plus is that the game is programmed to play using joystick, paddle or keyboard input. When employing the paddles, the gamer must press the space bar to activate the shields, and this gets to be a little clumsy. With the joystick, however, the shields work off the second action button, which makes for a more enjoyable game. (Leigh Goldstein)

Timebomb (Swiftly Software/Atari 400 & 800/16K cassette) is a re-working of a concept first introduced by Swiftly's own **Space Chase**. In both, an on-screen object collects items spread across the playfield while avoiding pursuit. In 'Space Chase,' arcaders conquer planets while fleeing from tie-fighters. Rows of aircraft that enter the screen from both sides provide the menace that attempts to frustrate the gamer's gathering of "depots" in 'Timebomb.'

The main point of interest is the amazing number of difficulty options designer Fernando Herreras has included. There are five daylight and five nighttime missions, three sizes of airplanes and three possible aircraft speeds. (In the dark, enemy planes can only be spotted when they pass directly over one of the depots.) No one is going to tire of this game because it's too easy!

The graphics are the biggest drawback. The airplanes are realistic, but the depots are just big blue blocks and the cursor is, well, a cursor. It's really a shame the designer didn't spice up the game by making the depots look like something.

Up to four can compete. An excellent feature is that the program prompts each gamer in turn and will not initiate play until one presses the action button on the joystick. The gamer can then select the desired difficulty options and get going.

It may not be quite up to 'Space Chase,' but this cassette does have its charms, most notably the explosive devices alluded to in its title. The game opens with "Tick, tick, TICK" appearing

both on-screen and on the accompanying audio track. The field then bursts into several alternating colors and the menu comes up.

The ticking resumes when the action starts, emanating from large red blocks about the same size as the depots. The computer keeps track of the number of depots collected as well as the time remaining before the screen blows up real good, as they say on "SCTV Network 90."

The constant ticking, the dwindling clock and the steady stream of enemy aircraft combine to make 'Timebomb' a genuine nail-biter. (Bill Kunkel)

Sneakers (Sirius Software/Apple II/48K disk) doesn't present a wildly innovative play-system, but it certainly wrings the most out of essentially familiar elements. The concept: Players fire at a field of moving targets with a horizontally mobile cannon.

This barebones description makes 'Sneakers' sound like any of a hundred programs that draw inspiration from good old **Space Invaders**. But oh, the execution! It would be hard to find a

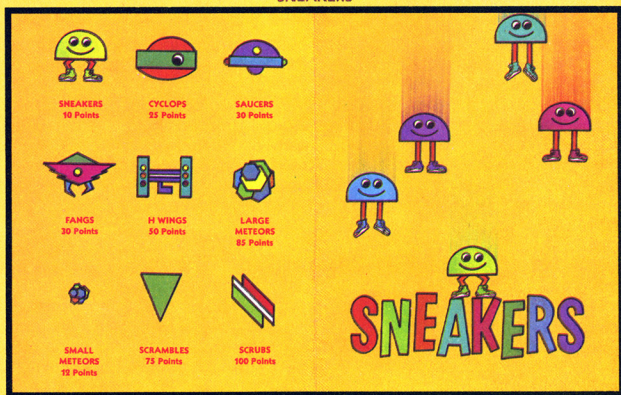
more captivating contest. Mark Turmell is not a professional game inventor, but his performance here shows that there's plenty of room for the talented amateur in electronic gaming.

'Sneakers' is one of the first multi-playfield games to reach the home arcade market. In light of the popularity of such games in amusement centers, it's not likely to be the last, either.

Each of the eight phases challenges the arcader's skill in a slightly different fashion. Instead of shooting at the same sort of target at ever-increasing speeds, the player must confront eight different creatures with as many styles of attack.

Turmell has obviously lavished a lot of attention on the target-monsters, and they are the chief attraction. Rendered in an engagingly cartoony style, the Sneakers, Cyclops, Saucers, Fangs, H-wings, Meteors, Scrambles and Scrubs are nearly as lovable as they are deadly. If this fellow isn't the Disney of computer gaming, he'll do until the real thing comes along.

The rest of the visuals are up to the same high standard. Between each of the five rounds that constitutes a complete game, a huge mothership slowly



lands, extends its gangplank and deposits the next cannon. 'Sneakers' also features an attract program similar to the ones that lure players to the coin-op devices. Not exactly necessary for a home arcade game, admittedly, but the designer can be forgiven this bit of self-indulgence. It does, at least, give a quick visual synopsis of the scoring system.

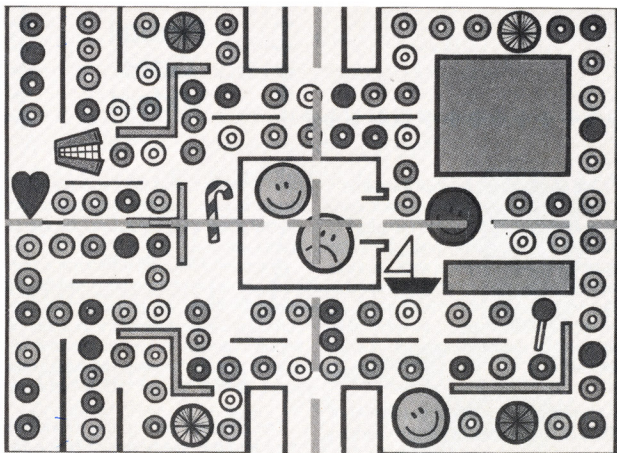
'Sneakers' probably would have been even better were it not for some of the Apple II's intrinsic limitations. The tiny speaker in the computer is simply not up to producing a "big" enough sound to mimic the commercial arcade machines as the designer obviously intended. The sluggish mechanical action of the Apple paddles doesn't help much either, especially when the player must fire rapidly against the Cyclops, H-wings and Scrubs.

Yet even with these minor shortcomings, there's no question that 'Sneakers' is an outstanding program. Turmell is reportedly working on a new game, and this is going to be one very hard act to follow. (Arnzie Katz)

Jawbreaker (On-Line Systems/Atari 400 & 800/48K) introduces gobble games to the Atari computer in grand style. The theme of this machine-language program is a spree in a candy store. The arcader steers a mouthful of chomping teeth around the maze-like establishment, gulping down all the little "wifesaver" hard candies in the aisles.

A gang of four brightly colored bullies tries to spoil the fun by chasing you around the store and attempting to bash out all those pearly teeth. One special sweet in each corner of the store is a special energizing jawbreaker. For a brief period after one is eaten, the chomper has the strength to turn the tables on the rowdies and gobble them up for extra points. The bullies turn gray during this crucial interval, and their leering smiles change to frowns to show their displeasure at getting chased hither and yon by the arcader's gulper. After all, what bully likes to get a taste of his own medicine?

Once a bully is eaten, its ghost floats back to the coral in the center of the playfield, where it resumes its normal belligerent activities. All the bullies begin to flash their true colors when their period of vulnerability is about to come to an end, giving the gamer a warning that it's



JAWBREAKER

time to start avoiding them again. In addition, special treats occasionally appear, as if by magic, in the aisles. They range in value from 100 points for a lollipop to 500 for a toy boat. (Who eats a toy boat? Maybe it's one of those wax-coated candies.)

"By far the most extensive usage of Atari Graphics to date" proclaims the colorful and clever instruction folder. Designer John Harris can be forgiven this attack of egotism, because 'Jawbreaker' does, indeed, set standards for computer game visuals. For instance, when the player succeeds in clearing the store of wifesavers, the machine sends out an animated toothbrush to scrub all the incisors, molars and bicuspidis for the next round.

The audio portion of this electronic pig-out isn't too shabby, either. The game opens with a multi-voice rendition of "The Candy Man" and subsequently offers a wide variety of eating and chewing noises that are well matched to the theme.

Since each round of play is progressively more difficult than the last, it is important to take advantage of all the scoring opportunities. A little practice with the joystick will produce enough skill to stay away from the bullies most of the time, but the arcader should attempt to lure the smilers closer to the chompers

just before eating one of the special jawbreakers. This will enable the teeth to gobble up two or three of them before they can flee out of range without diverting too much attention away from the main business of clearing the aisles of wifesavers. During any given period when the bullies can be eaten, their point value depends on how many fall victim to the teeth. The first is worth 200 points, the second is 400 points and so forth, up to 800 points for the fourth.

The magically appearing goodies are less valuable compared to the bullies, and so are not worth a lot of extra effort to get. Unless one pops up directly in the gobbler's path, it might as well be ignored.

And don't get greedy about the energizing jawbreakers. Try to clear an entire quadrant of the playfield before snagging the powerful treat, or you'll find yourself with a lot of uneaten wifesavers and a pack of bullies hot on your tail. Making occasional use of the vertical scrolling feature is a good idea, because it is less perilous than the trip from the top of the playfield to the bottom through the maze. Remember, however, that the gang of four isn't too dumb to use the scroll, too. There's nothing worse than getting trapped in that corridor with a bully close behind, only to discover that a second roughneck is scrolling in your

Q & A

continued from page 14

Rally-X and 'Pac Man'. According to their schedule for '82, Atari's VCS version of the maze chase classic will be on store shelves by March.

Q: Once and for all I'd like to know what the difference is between a vectorbeam and a quadrascan and how they work. Even though I read that 'Asteroids,' 'Red Baron' and 'Battlezone' uses the quadrascan system, they each look slightly different.

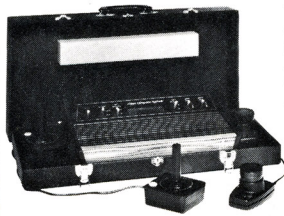
A: Also, will N.A.P. be making new cartridges of their own or will Magnavox continue to supply games for the Odyssey²? (From Jim Cayton, Vista, Ca.)

A: Actually, Jim, there is no real difference between Atari's quadrascan and the other vector graphics systems. The vectorbeam was developed by Electrohome for Cinematronics and was used on such classic coin-op-s as **Star Hawks** and **Star Castle**. "Quadrascan" is essentially the same system, but the name is trademarked for use exclusively by Atari. Quadrascan, in other words, is a specific vector graphics scanning system, named for the fact that it breaks the screen into four equal parts, each capable of generating high-resolution images and moving them at variable speeds.

Vector graphics employs a specially-built, "intelligent" monitor to achieve its eyeball-bending images, unlike your home television monitor, which employs the traditional rasterscan technology. Any differences you may note among the various games employing vector graphics is probably the result of refinement and design improvements.

As for who will be supplying games for the Odyssey², they will continue to be produced by the same folks who brought you UFO, **Quest for the Rings** and the other O² favorites. Magnavox, you see, is a subsidiary of North American Philips. The change is mainly one regarding retail outlets for Odyssey hard and software. Previously, the mainline system and game cartridges were sold exclusively via authorized Magnavox dealerships. By establishing Odyssey as a separate division, N.A.P. hopes to improve distribution.

continued on page 56



Just In Case

For Protecting, Storing and Transporting Your Atari® The new Atari Carrying Case holds the base unit, 2 joysticks, a set of paddles, the adaptors, and 4 cartridges. The cartridges, placed on top of the base unit, are snugly secured by the thick foam inside the lid. Removable lid allows in-case operation \$22.95 Deluxe Model (holds 16 cartridges). \$27.95 Matching 24-pack cartridge case . . . \$17.95

(add \$3.00 for shipping and handling)

Satisfaction Guaranteed!

Send check or money order to:

Cases Inc. P.O. Box 33820 Seattle, WA 98133 (206) 365-5210

*Atari is a Trademark of Atari, Inc.



**NEW CARTRIDGES
CARTRIDGE RACKS
STORAGE UNITS
TV TO STEREO ADAPTERS
CARTRIDGE X-CHANGE SERVICE
USED CARTRIDGE SYSTEMS**

**Looking
For Discount
Prices?**

SCREEN SONICS, Inc. is the complete video game cartridge service for cartridge X-changes, new products, and Atari servicing. If you would like more information on how you can enjoy more games for your system and **SAVE,**



A World Community Company

Authorized Atari®
Independent Service Center

Satisfaction Guaranteed

**send \$100
TO**

SCREEN SONICS INC.

P.O. BOX 8892
ST. LOUIS, MO. 63102

© SCREEN SONICS - 1981

Electronic Games 53

direction.

The instruction folder deserves special notice. It is fully as delightful as the game itself, presenting the simple rules in the style of one of those learn-to-read primers that substitutes little pictures for the hard words.

Who says hygiene lessons can't be fun? (Arnie Katz)

Missile Command (Atari/Atari 400 & 800/ROM cartridge) completes the hat-trick for this enormously popular program that has already done well in both the home programmable and coin-op fields.

The computer version represents a beautiful translation of the original commercial arcade game. If this 'Missile Command' didn't feature a single central command center—instead of the three found on the coin-op—even gaming gourmets would be hard-pressed to tell which one was filling the screen.

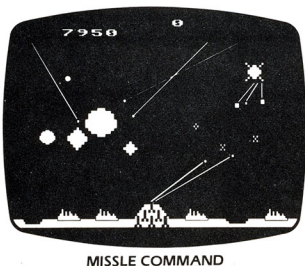
Players begin by choosing the number of participants (one or two), indicating whether scoring 10,000 points should earn a bonus city, and selecting the difficulty level at which the action will start. As 'Missile Command' fans know, the object is to fire anti-ballistic missiles (ABMs) to detonate incoming rockets before they can devastate the cities under your protection.

The enemy bombardment comes in short, but intense, bursts, each faster and deadlier than the one which preceded it. Therefore, by setting the game to commence at wave No. 10, arcaders will test themselves to the limit from the very first shot. Of course, the more difficult the wave, the higher the point value.

Cursor action is satisfyingly fast. The little aiming square flies across the screen with a speed reminiscent of the coin-op's track-ball controller. It's even possible to set up a protective umbrella of ABMs that will stop all but the mightiest weapons from striking the cities.

The always-nameless foe does have some fearsome armaments, too: ICBMs, MIRVs (multiple warhead missiles), killer satellites and bombers, and even smart missiles that can avoid or deflect ABMs not perfectly targeted.

After each attack, the computer tallies the score and displays the number of cities and defensive rockets remaining. The gamer usually uses this interval to take a few deep breaths and prepare for



the next onslaught.

Strategy is similar to that used in the coin-op version. Remember to allow for the time it takes for an ABM to travel to its goal and fire where you expect the missile to be when your ABM detonates. It is generally not worthwhile to protect flattened cities while, conversely, saving the two metropolises on either side of the command center should get top priority. The game's excellent instruction manual also advocates launching "insurance" missiles at the left and right ends of the playfield in hopes of catching a bomber or satellite just as it appears on the screen.

The graphics are outstanding. It's quite a sight to watch up to five different types of weapons streaking down the screen while your cursor hunts them down. (Bill Kunkel)

Galactic Chase (Spectrum Computers/Atari 400 & 800/16K & disk) proves there's truth in the old saying that you can't always tell a book by its cover. The crude illustration on the rules folder, which serves as the game's cover, is unworthy of the program inside.

Arcaders browsing the software shelves may be so put off by the package that they fail to investigate 'Galactic Chase.' That would be a definite mistake, because this disk makes an excellent addition to any Atari gamer's collection.

As the last defender of the civilized galaxy, the arcader confronts a succession of alien invasion fleets. Once the battle is joined, the attackers peel out of formation and swoop toward the bottom of the field on flared insectoid wings. The arcader fires missiles—or, in desperate situations, attempts to ram—the invaders to save mankind and, just incidentally, score points. Any creatures who

scroll off the bottom of the screen automatically reappear at the top and drop back into the formation.

'Galactic Chase' offers both one- and two-player options, but like most invader programs is more suited to solitary action. There are three skill levels, though the aliens' speed and ferocity increase even within each level. At the greatest difficulty setting, which kicks in when the gamer encounters the 31st alien armada, the invaders' invisible ray partially disables the missile launcher so that the defender's weapons travel much more slowly. The program helps the gamer keep track of the number of fleets destroyed by putting a little flag for each one eliminated in the lower right-hand corner of the playfield.

The arcader faces this mighty onslaught with a series of three starships. The joystick is used to move the craft back and forth across the bottom of the screen and the action button must be pressed each time a missile is to be fired. Scoring 7,000 points adds another ship to the defender's reserve fleet, as does advancing to the 16th, 32nd and 48th fleet engagements.

Scoring is tallied on-screen at the base of the playfield. The program also keeps track of the best performance during the current session—highest point total and greatest number of fleets engaged—on the same line.

The point value of the four types of attackers—ensigns, captains, flankers and command ships—holds the strategic key to 'Galactic Chase.' Each type of space creature is worth at least twice as much if hit while swooping than if it is shot out of the formation. The command ships, which count for 50 points ordinarily, can bring up to 400 points if eliminated during a bombing run at the defender.

So although it's hard to resist all those stationary targets, arcaders must use will-power. Wait for the first invaders to leave formation for a lower-altitude attack before atomizing them. How high your score is a function of how long you can continue to pursue this approach before the steadily increasing number of creatures swooping at any one time overwhelms the star ship. At that point, it's every space knight for himself.

So ignore the tacky cover artwork and back into the formation, with the exception of the bonus-targets which must be destroyed before. (Laney)

Dodge Racer (Synapse Software/Atari 400 & 800/16K cassette, 24K transferred to disk) is a splendid computer version of the classic concentric-rectangle race game. Players guide cars through connecting, maze-like corridors and score by running over point-scoring objects placed at regular intervals along the roadways. The main hurdle to clearing the entire field is a human or computer-operated jam car that attempts to crash into the arcader's vehicle before too many points are amassed.

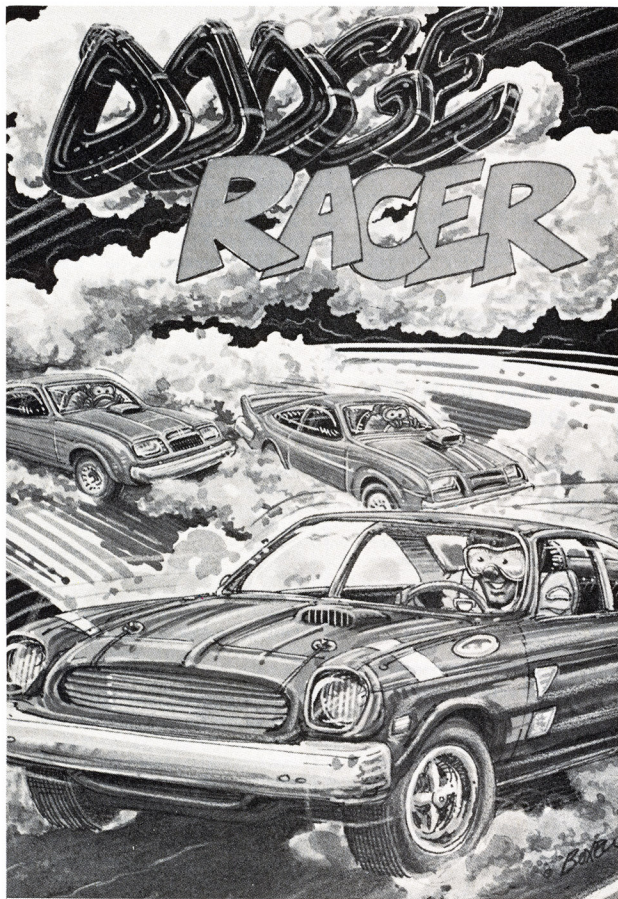
Though obviously inspired by Atari's **Dodge 'Em**, this version is clearly an improvement on its inspiration. By increasing the number of lanes to six, "Dodge Racer" greatly reduces the chance that the gamer will develop a system. Once the arcader has a pre-planned route that covers the entire field in the shortest possible time, it takes a lot out of programs of this type. It is certainly possible to "solve" "Dodge Racer," but it will take most players a lot of time to arrive at a sure-fire approach.

Each player receives five cars, with reserve autos shown lined up next to the score counter in the center of the screen. Drivers rev up to the higher of the two available speeds by pressing the action button. At high speed, cars can jump two lanes instead of the customary one. This is the arcader's sole advantage over the jam car, which can never shift more than one lane at a time.

The program includes 16 variations, some of which drastically change the whole complexion of the contest. One variant replenishes the dots after every crash, while another pilots the scoring racer against two crash vehicles. Up to four can play, either taking turns or squaring off in a series of head-to-head confrontations.

"Dodge Racer" uses machine-language sub-routines that speed up play and juice up the joystick response. A signature tune opens and closes each game, and there's a rumbling audio track that sounds like a souped-up T-bird. Even the instructions are clear and precise. Maze/chase fans will want this one. (Bill Kunkel)

DODGE RACER



Imperial Walker (Crystalware/Atari 400 & 800/16K disk) is a mixed bag of five games—one didn't even make the listing on the package, because Crystalware only added it to later editions—that range from graphically impressive but boring to unique and imaginative.

The lead-off hitter, **Imperial Walker**, is a disappointment. The walker—or At-At—of "Empire Strikes Back" fame moves through a series of stiffly animated poses, but only travels horizontally across the screen.

It certainly looks impressive, at least the first few times. You'll probably gasp in astonishment when, after the At-At brings down a tie-fighter, a tiny rebel pilot emerges, fires a harmless blast at the mechanical mammoth and runs off the screen.

A game needs more than looks, though. "Imperial Walker" leaves a lot to be desired.

The walker can move forward or backward, shift its head into any of three firing positions and spit laser blasts from its mouth, but it can only perform one of these actions at a time. Simultaneous movement and fire is out.

Even with such a handicap, the deck is solidly stacked in the walker's favor.

Officially Licensed T-SHIRTS or SWEATSHIRTS in Special

"GAMER-PAK"

Set of 4 great games on quality 50/50, polycotton T-Shirts or Sweatshirts for one low price:

All 4 T-Shirts - \$24
or \$6.99 ea.

All 4 Sweatshirts - \$52
or \$14.99 ea.



SIZES: Adults S.M.L.XL. Childrens 10-14, 14-16.

COLORS: Space Invaders-royal blue, Asteroids-red
Missile Command-black, Pac Man-royal blue.

*Games on childrens' sizes available on royal T's only

TO ORDER: Send check or money order to:
Downeast Trading Co. INC.
737 Warburton Ave. Yonkers N.Y. 10701

MasterCard, VISA include sign., exp. date & number.

SHIP TO: Name _____
Address _____
City _____ State _____ Zip _____
Gamer T's Pak _____ Gamer Sweatshirt Pak _____ Size _____
Individual game _____ Size _____
N.Y. res. Add 8% sales tax. Add \$1 per order shipping.
Dealer Inquiries Invited.

DRESS UP & PROTECT YOUR FAVORITE TOY

JUD-TARI DUST COVER



Smoked vinyl, designed to fit Atari video games. Holds controllers plus up to 10 game cartridges. Dress up & protect your family's favorite toy... **\$14.95**

Replacement **AC ADAPTER** for Atari, Intellivision, & other video games **\$12.95**

Replacement **TV/GAME SWITCH** For all video games **\$5.95**

To order send check or money order plus + 2.50 shipping & handling. (NJ residents add 5% tax) Visa & MasterCard accepted. Include card no. & exp. date.

For-Play
44 Hoffman Ave. Dept. 1
Lake Hiawatha, NJ 07034
201-334-2085

Video Game Cartridges At Wholesale Prices

Savings Up To 50% Off Retail Prices

- | | |
|---|--|
| <ul style="list-style-type: none"> ATARI Cannonball Space War Surround Street Racer Home Run Football Dodge-Em Air Sea Battle Outlaw Video Olympics Breakout Basketball Bowling Circus Chess Night Driver Maze Craze Missile Command | <ul style="list-style-type: none"> War Lords Adventure Super Breakout Space Invaders Superman Video Pinball Asteroids Indy 500 |
|---|--|

ACTIVISION

- Stampee
- Drafter
- Boxing
- Skiing
- Tennis
- Laser Blast
- Freeway
- Kaboom
- Ice Hockey

PACKMAN IS COMING IN MARCH

BALLY & MATTEL ALSO AVAILABLE
Only 3 Weeks Delivery on Orders

SEND FOR CATALOG OF VIDEO CARTRIDGES & ACCESSORIES

NAME _____
ADDRESS _____
CITY _____
STATE _____ ZIP _____

Mail To: COMP-U-GAMES
P.O. Box 7105, Hicksville, New York 11801

We Accept Checks, Visa & Master Charge

Q & A

continued from page 53

Q: How long does Intellivision take to make a cartridge and how much does it cost to make one? (from Duane ("Intellivision") Smith, Rochester, Mn.)

A: First off, Duane, let's make your question slightly more generic. Intellivision, Atari and Odyssey all take approximately the same amount of time in producing a new game cartridge: about four months. This Research and Development period is very expensive, as is production of the program boards and the assembly line process whereby they are placed within protective plastic casings.

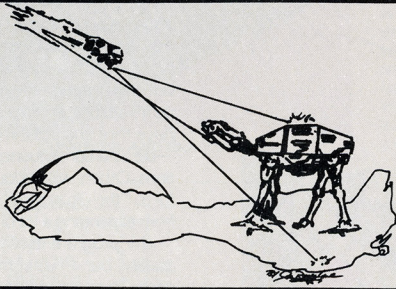
Q: I would like to buy an Atari 400 computer, but I would like to put more K memory into it. The people at Atari told me if I do that, the computer might break down, and it won't understand what I want it to do. (From Robert F. Hobbs, Dracut, Mass.)

A: Well, as your friendly Game Doctor has had an Axlon 32K Ramcram in his 400 for over six months now without any ill-effects, the only real cause for concern seems to be Atari possibly voiding the warranty on any souped up system.

Several companies are now producing upgrade boards for the Atari and, aside for occasional line-distortion, they are all apparently safe. As for the computer failing to "understand" you, I can't imagine why. The only real danger could come from accidentally inserting the board into the 400 backwards. So if you're not sure what you're doing, have an authorized dealer install it for you. ★

Well, it's time to lock up the question box so the Game Doctor can get out there on the videogame golf course and shoot a few holes. But if you have any questions about programmable videogames, hand-helds, coin-ops or computer games — any aspect of electronic arcading — just drop a line to your favorite gaming sawbones. Send your problems and question to: Electronic Games, 235 Park Ave. South, New York, N.Y. 10003.

IMPERIAL WALKER



IMPERIAL WALKER

While this is admittedly true to the "Star Wars" mythos, it makes the game pretty one-sided. The tie-fighter, which can be controlled by either the computer or a second human player, can only stop this armored lumbox by shooting at its vulnerable neck.

The bottom line is that 'Imperial Walker's first-rate visuals mask a program that has many of the characteristics one would expect of a computerized sleeping pill.

Auto Race challenges gamers to steer cars through a treacherous maze. As a nice touch, drivers use the Atari's number keys to shift gears. Not so nice is that the programmer didn't take the time to adapt 'Auto Race' for joystick movement. Having to steer with the four directional keys makes this game much more trouble than it's worth to master.

On the other hand, those who enjoy "nim" games have got to love **Lazer Nim**. For the uninitiated, this version provides several rows of little robot kewpie dolls. Alternating turns with the computer, the arcader eliminates as many dolls as desired, but only from one row in a given turn. The object is to see who gets the last nim.

This program won't make anyone forget **Star Raiders**, but it certainly is the best version of this ancient game for the computer. The allure is all in the charm-

ing graphics: the androids resemble nothing so much as the aliens from "Close Encounters of the Third Kind."

Gunfight is a wild west shoot-'em-up, and the same thing has been done better. The colors seem rather bleak, and the bullets can be difficult to pick out against the background. The shining moment comes when a gunfighter stops a fatal slug. The computer trills a short dirge and then sets up a little tombstone to mark the spot.

Snake 'n Shake is the mystery bonus game mentioned earlier. Ironically, it's the disk's real treasure. This clever cousin of **Surround** is an abstract contest that sends gamers on a chase after a randomly appearing blue dot. The target pops into existence, stays a few seconds and then blinks to another section of the screen.

The player uses a joystick to direct a cursor that grows a longer tail each time it catches up with the dot. Running into the playfield boundary, the obstacle cross located at the center of the screen or the tail of the snake ends the game.

With some practice, skillful players will soon be hauling around a snake that's several times longer than the diameter of the field.

The trick is to pass up the dot when it's wedged into particularly tough spots and make the most of opportunities to

get it when it's comparatively accessible. Be particularly on guard against running over the tail, which often happens when the arcader tries to brake or suddenly reverses direction.

'Snake 'n Shake' ranks as one of the most stimulating challenges to the hand-eye masters to come along in some time. So be sure to get the editions which include it. And if you got one of the earliest copies of 'Imperial Walker,' see if you can exchange it for a newer one. The presence of 'Snake 'n Shake' on the disk spells the difference between a questionable value and a real bargain. (Bill Kunkel)

Star Thief (Cavalier Software/Apple II/48K) is almost assured of a warm reception, because it is one of the few programs offered for the Apple that two people can play simultaneously. Based on the coin-op success, **Ripoff**, the general object is to keep the aliens from stealing the pulsating pods.

The game starts slowly, but the action heats up significantly as it progresses. Each participant is armed with phasers to shoot at the multi-colored and swift-moving aliens, who fire back and gobble up the pods as they fly. Controls function exactly like **Asteroid Field**, Cavalier's previous entry. Pushing the paddle button rapidly discharges the phasers, while holding it down applies thrust to the ship.

The concept is straightforward: Blast the enemy to smithereens before they can clear the field of pods. The game ends when both players have been killed and all the pods are gone. Some of 'Star Thief's' best moments come when the pods are gone, one player is out of commission, and the survivor battles to the death with the invaders.

Avoiding the corners is guaranteed to keep you in the game longer, because that's where the aliens materialize. Shooting through the sides of the screen, using a technique reminiscent of one facet of strategy for **Asteroids**, is quite legal—and very effective. Players are allowed to team up to form a united front against the hostile star thieves, or they can go it alone.

Whichever way it's played, 'Star Thief' is sure to appeal to arcaders looking for another outlet for a strong destructive streak. (Leigh Goldstein)



PASSPORT TO



ADVENTURE

By Arnie Katz

Swords Against the Evil Wizard!

The Quest/Survival Software/
Atari 800/48K disk

This is the initial installment of a projected multi-part epic that is distinguished from the usual run of such games in several important ways.

One is that, in a field overwhelmingly dominated by adventures with a fantasy theme, this one has a resolutely science fictional slant. It's a post-nuclear war story in which the hero starts on the outskirts of one of the few remaining settlements and heads West to discover what remnants of the once-mighty American

civilization might still exist.

Another unusual wrinkle is that **The Quest** is an augmented text adventure. Besides the usual words, it is graced with some entertaining audio-visual effects. As night begins to fall, for instance, the screen's background color slowly darkens from daylight blue to midnight black. Firing a gun—assuming, of course, the arcader is clever enough to find it—produces an audible report. When an adventurer tries to study a map, the screen displays an actual drawing, not just a written description of its contents.

Something else not found too frequently in other games is "The Quest's" concept of "the Guardians." If the computerist attempts to direct the on-screen explorer into a course of action within the game for which the hero is unprepared, the program prints out a warning and prevents progress along forbidden lines until any deficiency is rectified.

Whether this is a good thing or a bad one will depend entirely on each individual's attitude. Some will greatly prefer to have their character live—or if need be—die as a consequence of his own actions. Others will undoubtedly be grateful to "the Guardians" for saving them from expending a lot of futile effort.

The program itself is of fairly good quality, but it has some annoying aspects. There are some intriguing puzzles, but there are also entirely too many "set pieces."

Here's an example. At one point, the explorer, while examining a room, is jumped from behind by a crazed (and wounded) man. The man flails about wildly and rushes past the adventurer, leaving a crucial map behind. Even when the gamer takes precautions against being surprised in this manner—or when you know the attack is coming because it isn't the first time you've played this section of "The Quest"—there is no way to prevent or anticipate this event. Your character can face every direction in the room and not see this guy, but just let the explorer start to leave and—wham!—the wounded psycho jumps on his back out of nowhere. There is also no way to stop the man from leaving, even if the doors and windows are locked. It would have been a lot more sensible to have hidden the map somewhere in the room so it could be found. Such false notes definitely detract from an otherwise enjoyable experience. Hopefully, the designer will learn to avoid such set-ups in future installments.

Wizardry/Sir-Tech/Apple II/48K disk

Although it lacks some of the play-elements found in other titles, **Wizardry's** debut is an event of singular importance to lovers of computer adventures. Those who have a thorough grounding in non-electronic role-playing games like

'Dungeons & Dragons' (TSR) will be particularly excited by the possibilities.

The initial package—Sir-Tech has promised that additional scenarios will become available about mid-year—includes the Master Disk with a "gilded hole" scenario on the flip side.

Proving Grounds of the Mad Overlord, though quite enjoyable in its own way, is intended by the designers to help players become familiar with the system and develop characters powerful enough to stand a chance against some of the forthcoming menaces. The wizard Weirdna has stolen a valuable object from the treasure rooms of the mad monarch Trebor, and the gamer must forge characters mighty enough to survive the dangers involved in getting it back.

A particularly well-done instruction book tells everything needed to create and direct the on-screen heroes and heroines without revealing too much about the various charts, tables and equations that underlie movement, combat and other actions.

While a reviewer might wish to know more about what makes things tick, it's possible to make a very good case for the attitude that the players are better left in ignorance about such matters. Lack of

computer game. Considering the wealth of detail they've packed into this thing, it may well be true. Greatly facilitating ease-of-play is the fact that 'Wizardry' is done in Apple Pascal 1.1 Run-time Operating System. This yields a game that will run on a garden-variety Apple II Plus, yet has lightning-quick data manipulation no Basic program can match. Once a computerist becomes familiar with the procedures in 'Wizardry,' it's possible to input and process information faster than the monitor can print it!

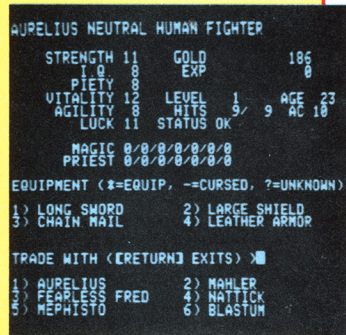
The best way to give you some idea of this title's features is to run through the steps necessary to create a party. That's right, RPGers, it is possible to run a group of up to six characters at the same time.

After choosing a name, the player determines the race (human, elf, dwarf, hobbit or gnome) and the alignment (good, neutral or evil). The computer then prints out the values for the six basic traits (strength, I.Q., piety, vitality, agility and luck) appropriate to the race selected. Also generated is a number of "free" ability points, usually in the 7-30 range, which the player can allocate as desired. This makes it possible for any one character to attain the minimum needed prime requisite for any of the four "regular" classes of adventurers (fighter, priest, thief and mage). There are also four "elite" classes (samurai, lord, ninja and bishop), but only bishop is available to a beginning character—and then only if the adjusted ability scores are very high. Finally, the gamer has the option to keep the character rolled up or scrap it and try again.

It would be helpful if subsequent editions put the selection for alignment later in the character generation routine. The thief class, for example, is only open to "neutral" or "evil" characters, and it would be good to have a less restricted range of choices.

The actual classes are a well-done adaptation of standard non-electronic role-assumption gaming fare. The balance of strengths and weakness compels all members of an adventuring party to work together to achieve success. Fighters are best in combat, mages work spells, priests can fight a little and pull off a variety of miracles, and thieves are experts at defusing traps and picking locks. In the case of the latter class, however, it's too bad the game could make no pro-

vision for the thievish skills of sneaking, stealing and climbing. There's a slight tendency, when playing, to treat the party's thief as a human can-opener, so gamers are advised to control at least one other adventurer on the mission or risk boredom.



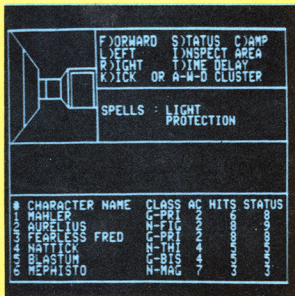
WIZARDRY

Once enough characters are produced, the focus shifts to the castle. A visit to the Inn permits the players to assemble a party of heroes, and this is often followed by a trip to Boltac's Trading Post to buy arms and armor. Some magic is also obtainable, but it is properly expensive and scarce.

Then it's off to the maze-like warrens beneath the castle. The computer shows players a constantly updating 3-D perspective view of what the characters would actually see, a rundown on the party members' current status and a list of options requiring the typing one one letter to implement. The party moves through the corridors, exploring rooms and changing levels. Mapping is absolutely necessary.

Though beings met in the dungeon occasionally greet the party with friendship, most encounters are at sword's point. If one occurs, a color drawing of the monster-type closest to the party appears in the upper left-hand corner, and the opposition is listed to the right.

Players then choose an option for each character. When this is completed, the program fights the first round of combat, reporting what each participant on both sides is doing. The current status of everyone involved is revised, and the process repeats.



WIZARDRY

such data forces arcaders to deal directly with the game situation in its own terms. This, in turn, prevents people from becoming preoccupied with trying to fool around with the mathematical underpinning.

Designers Andrew Greenberg and Robert Woodhead contend that 'Wizardry', at 14,000 lines of code, is the longest program ever written for a micro-



ANALOG ADVENTURE

If the party vanquishes its foes, the number of experience points earned by each character replaces the list of attackers. Any treasure not in a chest is automatically parcelled out evenly. Finally, if there is a chest, the game initiates that series of options for the players.

If the party has sustained appreciable damage, it may erect a camp. There, in safety, the adventures can cast healing spells, examine mysterious items found in the dungeon and revise the group's marching order.

'Proving Grounds of the Mad Overlord' gives adventures a fair shake, but it is very stingy with its rewards. Characters have to work hard and take big risks to get any of the real plums.

After exiting the maze, the party may go to the Temple of Radiant Cant, where the holy men will raise the dead and cure the poisoned or paralyzed for a stiff fee. It is wise to camp shortly before returning to the castle and use up any healing spells on party members that need the help. Damage not repaired in this fashion can be mended with rest at the Adventurers Inn. There are several grades of accommodations, each with a different healing rate. Since aging is a factor in the game, the best rooms should be chosen if the character can afford the cost.

The visit to the Inn is also the means by which the program records each charac-

ter's newly gained experience. Those which have accumulated enough points are advanced to the next highest level within their class. This frequently gains new or heightened abilities. 'Wizardry' also borrows a concept introduced by the non-electronic 'Tunnels & Trolls' and has the ability scores fluctuate slightly when a character attains a new level. Usually, several traits will increase by a point each, but a reduction becomes more likely as a character gets older. Age 50 seems to be the worry line.

Even this extensive review only scratches the surface of 'Wizardry.' The only way to really understand this smooth-playing fantasy game is to get out there and adventure in it for awhile. And in this case, that is highly recommended to all electronic adventurer-gamers.

Book of Hints/Adventure International/Not a program

Scott Adams Adventures were among the first—and remain among the best—series of inter-active computer text games. There are many reasons for their widespread acceptance, not the least of which is that Adventure International has made its varied line available for most of the major micro systems.

Yet that alone cannot explain their enduring popularity in a field that always puts a premium on the new and in-

novative. Scott Adams himself, a skilled programmer with a flair for concocting ingenious puzzles laced with a bracing dash of humor, deserves a large measure of the credit. This library of scenarios, an even dozen at last count, has served as the introduction to computer adventuring for most of those presently engaged in this facet of electronic gaming.

If Adam's creations have an achilles heel, it is that, in general, the individual puzzles and traps must be surmounted in a pre-determined sequence. Failure to penetrate even one of the many mysteries contained within each Adventure inevitably brings all progress to a screeching halt while the player frantically hunts for the key to the solution.

Tying in the command "help" will sometimes elicit enough information to get things moving again, but not always. Adventure International has now taken pity on us poor folks who are, temporarily at least, losing the battle of wits against one of Adams' creations by producing a book of hints covering the first nine programs in the set.

Author Adams displays just as light a touch here as he does with the games themselves. The hints are not so specific that they ruin all the fun, yet they contain enough wisdom to prompt most players to develop the correct strategy.

Even better, the suggestions are presented in a format that is appropriate to the spirit of the games upon which they comment. That is, they are not given in a cut-and-dried, straightforward manner. It requires a small amount of work on the gamer's part to unearth these clues.

The process of finding a hint is relatively simple. After locating the section of the booklet for the desired adventure, the truth-seeker scans a list of short questions until he finds the one that seems to apply to the specific predicament under study. Underneath each question is a series of numbers. These are cross-referenced with a special code dictionary. All the arcader has to do is substitute the right word for each corresponding number, and a little hint emerges.

This may sound cumbersome, but it has one important advantage. It is virtually impossible to see a hint not absolutely required by the gamer. After all, who wants to spoil an adventure by inadvertently learning the solutions to all the puzzles?

A wise adventure-gamer should no more consider tackling one of Scott Adams' brain-bogglers without 'Book of Hints' clutched firmly in hand than the on-screen hero would assay a dangerous quest without sword.



REPLAY

continued from page 7

A plea is answered

First of all, thank you. The magazine is great. You really ought to go to bi-monthly release, at least.

I think an interesting item would be troubleshooting. Service is the only bad thing about programmable videogames, especially where I live. No one local wants to service cartridges or units. Help!

Chuck Jones
(No address given)

Ed: The enthusiastic backing Electronic Games has received from arcaders all across the country makes it possible to grant your wish, starting with the very next issue EG is going bi-monthly.

Service is a problem. Hopefully, as the number of videogame systems continues to grow, more repair facilities will decide to learn how to service them.

More solitaire games needed

As an Odyssey² owner, I am naturally interested in news and reviews of cartridges in production or in the works. That's why "Programmable Parade" and "Hotline" were my favorite articles. I also enjoyed the "Players Guide", since it gave me a good overview of other games.

I would like to see a software outfit that would make cartridges for Odyssey² like Activision does for the Atari VCS. I agree with your conclusion that the Odyssey² is not very well covered for solitary play. I would like to be able to play football or baseball against the computer. It is hard to get good competition for some of these games that take a lot of practice.

Kit Kimes
Montgomery, Ill.

Ed: The very qualities most of us like about Odyssey² sports games, their sophistication and complexity, makes it hard to develop a suitable solitaire version within the bounds of the limited memory capacity of the system. One possible answer is

continued on page 73



the most advanced maze game available to the ATARI® owner

A new game by Craig Patchett which uses machine language routines, 5-color, high-resolution graphics and sound effects.

The player's goal is to guide an imaginary robot through and out of a 3-dimensional maze.

20 game variations insure countless hours of enjoyment.

CAPTIVITY can be used with any ATARI® computer with at least 24K. It is available in cassette format only. Price is \$24.95 plus \$2.00 shipping and handling.

Available at fine computer stores or write us directly.

PDI

Program Design, Inc. 11 Idar Court Greenwich, CT 06830
203-661-8799

ATARI® is the registered trademark of ATARI, Inc.

NOW the official VIDEO GAME PLAYERS' T-Shirts

Join the video game revolution,
by wearing these official shirts...
the choice of video gamers everywhere!

Just **5⁹⁵**

- 100% pre-shrink cotton
- Super Comfortable
- Colors: Blue, White, Tan
- Beautifully silkscreened in dark blue ink
- Sizes: SM(34-36) MED(38-40) LG(42-44) XLG(46-)
- Optional dictionary-type definitions for backs of shirts

OPTIONAL DEFINITIONS

VideoAce: An expert, very skillful; having much training and knowledge in the operation of video games.

Vidiot: One who willingly suffers extreme, prolonged exposure to video games.

Vidicy: The state of being a vidiot.

ORDER YOURS TODAY!

Satisfaction Guaranteed!



Mail To: **FRITZILLIE**
Box 7276 • Eugene, OR 97401-0012

Mail To: **FRITZILLIE: P.O. BOX 7276 EUGENE, OR 97401-0012** 1782 N. 5th Springfield, OR 97477

YES, FRITZ, I want to wear these great shirts!

Please send **VideoAce** shirts @ 5.95

Color _____ Size _____ Color _____ Size _____

Please send **Vidiot** shirts @ 5.95

Color _____ Size _____ Color _____ Size _____

Special savings 2 shirts for \$10.95

Definition on back for only \$1.00

Official certificates for framing @ 2.50

_____ **VideoAce** _____ **Vidiot**

(please add \$1.50 postage & handling for first shirt.
50¢ additional shirts)

Enclosed is my check for the amount plus postage and handling

Please charge my VISA MasterCard Account

Acct# _____ exp _____

Name _____

Address _____

City _____ State _____ Zip _____

STRATEGY SESSION



By Frank Tetro, Jr.

Let's Save the Universe

In **UFO**, players control a spaceship equipped with armed, ramming shield, in an area of space patrolled by an intergalactic foe capable of dispatching three types of deadly weapons. The enemy can launch random UFOs (worth one point), hunter-killers (three points) and even light-speed starships (10 points). The player must use his shield to destroy as many of these as possible before his ship is obliterated.

The shield appears as a ring of eight colored dots, one brighter than the rest. This is the cannon. Moving the ship causes the shield to rotate in a clockwise direction, permitting the cannon to be aimed. The shield can also ram UFOs and starships. But once it has destroyed an enemy weapon or ship, through

either means, the shield shuts down several seconds for recharging. When it returns, it takes on an intermediate color before returning to its normal blue. During this period, the ship has a 50/50 chance of surviving a hit.

If at any time while you are playing, two random UFOs merge, they will form a single hunter-killer. As these are worth three points to the random type's one, let this happen before firing.

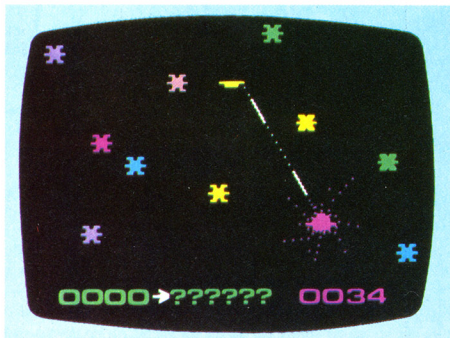
The best strategy for beginners is to ram the UFOs, at least until you master the tricky business of aiming the cannon.

With practice, aiming becomes much easier, but you'll still probably ram more UFOs than you blast. Remember also that the cannon's range is limited to about one-quarter of the playfield, so don't waste time on UFOs that are out of range.

The most valuable target-object on the screen is the light-speed starship, but it is also the most deadly. It can travel through hyperspace, remember, and may turn up anywhere on the screen at any time. It also fires in bursts, so that if it has the Federation cruiser in its range, the first blast defuses the shield while the second obliterates the cruiser itself.

The starship has an achilles heel, however, in that it can only fire in the four diagonal directions. Therefore, if the cruiser approaches it from the side, above or below, it's a sitting duck. Trou-

UFO



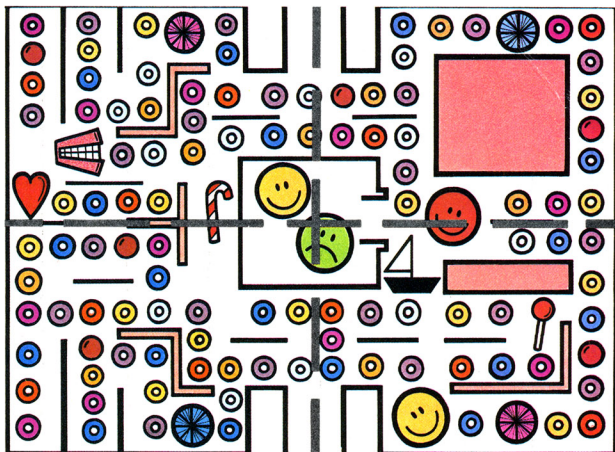
STAR RAIDERS



ble is, it doesn't exactly stand still and let you get astride it, so you'll have to continually mirror its movements from a safe position until you can get off your shot. For beginners, there is a simpler strategy: run for your life, hide behind UFOs—anything—just stay away from it.

Again, arcaders will probably find it easier to ram the starship than blow it up. Whichever tack you prefer, there's no avoiding the fact that you've got to get the starships for the big point totals.

Otherwise, stay toward the center of the screen. The enemy is always busy generating more UFOs off-screen, and the unwary pilot caught in the upper and lower corners of the playfield often ends up floating in space without a craft before they realize what hit them. True, the UFOs are thickest at center-screen, but at least you can see them.



JAWBREAKER

Jawbreaker/On-Line/Atari 400 & 800/16K disk

Jawbreaker is a maze-chase/gobble game patterned on the popular coin-op, **Pac Man**. Players maneuver a set of teeth through a maze, gulping down little white-ringed "wife-savers" and occasional powdered jawbreakers before getting said choppers knocked out by one of the quartet of cheshire-faced "bullies."

In each of the maze's four corners are found the special, jewel-like jawbreakers. Guiding the choppers over such a morsel momentarily turns the smiling, brightly-colored bullies into frowning, blue cowards, which the player may then devour for bonus points. Wife-savers are worth 10 points, jawbreakers count for 50 while bonus objects (lollipops, candy hearts, toy sailboats) range in value from 100 to 500 points.

Eating a bully is profitable business, too. The first tough guy you gulp down during a given "blue period" is worth 200 pts., the second, 400 and so on, up to 800 points for all four. After getting eaten, however, the bully's ghost flies back to the "corral" at the center of the playfield maze, where he will re-emerge, good as new.

There are two strategic approaches to this game, one for a player shooting for a high score, another for a gamer who wants to clear as many walls as possible. (Clearing three sets of wife-savers is good for a bonus pair of choppers.)

When going for points, the best bet is to eat as many savers as possible **without** chowing down on that quadrant's jawbreaker. Try to eat the mystery objects when possible—take no senseless

risks for a 100 point lollipop, however. Only down the jawbreaker when there are several bullies on your tail, at which point you'll stand a good chance of catching all four of them.

There is also a special tunnel which acts as a scrolling short-cut from the bottom of the screen to the top, or vice versa. When moving through the tunnel, the teeth travel at normal speed, but the bullies are reduced to half their normal movement rate. This makes a very convenient escape hatch, therefore, in tight situations.

If you opt for the second approach—going for as many walls as possible, you must mentally divide the maze into four sections, right through the middle, each containing a colored jawbreaker. Go to work clearing one section at a time. When bothered by bullies, just gulp the jawbreaker and they'll run away. **Do not attempt to chase them**; simply continue on your way until you've cleared that sector of wife-savers, then move on to the next one.

With each wall cleared, the bullies get quicker until they can eventually move faster than the teeth. At this point, clever timing in devouring jawbreakers and expert use of the scrolling tunnel are required ingredients.

Star Raiders/Atari 400 & 800/8K

Star Raiders is a computer adventure which puts the player in the cockpit of a mighty intergalactic starship. As part of the Atarian Fleet you must rid the galaxy of enemy fighters, cruisers and deadly

basestars.

As the game begins, hit "S" to activate your shields lest a stray meteoroid demish you before you even start, and "C" to start up the attack computer, which is invaluable in targeting. Next push "G" to summon up the Galactic Chart. This grid-display will indicate the positions of the friendly starbases, which must be protected at all costs, in relation to enemy squadrons.

At the "novice," or learning, level, the trip into warp space is navigated by the computer. At other levels, a steady hand on the joystick is required to stay on target as the tremendous strain of warping can cause the ship to waffle slightly, requiring manual readjustment. Remember that pushing the joystick left moves you right and vice-versa; everything in hyperspace is backwards. This will take some practice.

Once you've reached the desired sector, one of several things will happen. If there are no Zylons in the area (they can change location quickly), all will be quiet. If the enemy's around, warning claxons sound an alert, and the attack computer will pick up the nearest target and focus in on it, giving a visual aid as to its location in the sighting device in the lower right corner of the screen. The computer also feeds other information that allows you to line up the enemy along the vertical and horizontal coordinates with the joystick.

Once within a zone, you can hit one of the numbered keys to apply impulse engine power. Sectors are rather large, and even Zylons in the same sector may

be outside your ship's range. Once you've activated the engines—6 or 7 is a good cruising speed—move to within 100 centons of the enemy craft you're seeking, at which point it will become visible on screen. When it's in the crosshairs, fire twice, in rapid succession, launching both left and right photons. Remember, though, these babies fire back, so don't let them get too close.

If you have trouble centering the ship, or if it seems to disappear off the sides of the screen, it is probably firing from behind you. When this happens, hit "T" and the computer will track the enemy, automatically shifting from front to rear views.

Once you destroy a ship, the computer will home in on the next closest Zylon. But if your ship is hit at any but the "novice" level, it may be damaged. If it's something serious like the engines or

tracking computer, or if the fuel dips below 1500, it's time to dock at a friendly starbase for fuel and repairs.

Track down a base just as you would an enemy ship. When you get close enough to see all six window ports on the starbase, hit "zero" on the keyboard to come to a complete stop. The message "Orbit Established: Stand by" will appear on screen, and all will be well. Sit back and wait until the computer reports that the transfer is complete, then get on with your star raiding.

As explained before, the Zylons first surround, then destroy your bases. When a base looks hopelessly outgunned, you may choose to fly in and finish it off yourself so as not to lose as many points. Use this maneuver sparingly, however, as the Atarian Federation does not look kindly on this sort of interstellar genocide.

SCRAMBLE



Scramble/Stern/Coin-op

Scramble is a space action game in which arcaders must shoot their way through five Scramble Defense Systems to the base station which must also be destroyed. After that, the entire game begins again at a higher difficulty level.

The five defense systems, each requiring a separate strategy, become progressively more challenging. Because of the complexity of this game, and the limited space available, we'll concentrate on the first and fifth systems.

In the first assault, you fly over hills and valleys using bombs and lasers to destroy as many objects as possible. The first target is the fuel tank, which is not only worth 100 points, but also adds to **your** supply of energy. Remember, if you run out of fuel, you crash. The second group of targets, the mystery towers, are worth anywhere from 100 to 300 points, and are relatively easy to destroy. The next objectives, however, are not such sitting ducks; they're rockets, which are launched at your ship if you don't rub them out quickly enough. The most desirable approach is to let them leave the ground, then blow them up before they can get near you—as flying missiles are

worth more than twice as much as rockets sitting on the ground.

As mentioned, your ship can either fire lasers from the bow or drop bombs. The best strategy at this level is to stay close to the ground, using the ship's laser to knock off targets. And always go for the fuel tanks, to insure your own supply.

Aside from controlling vertical movement, this coin-op's joystick also has horizontal control. Movement to the right speeds up the ship; movement to the left slows it down.

Mastering these motion controls comes in very handy, especially during the fifth scenario, when you must guide your craft through a maze-like city of walls with fuel tanks blocking the way. Using the laser, eliminating the fuel tanks should be fairly easy. Navigating through the city's labyrinthine turns isn't quite so simple.

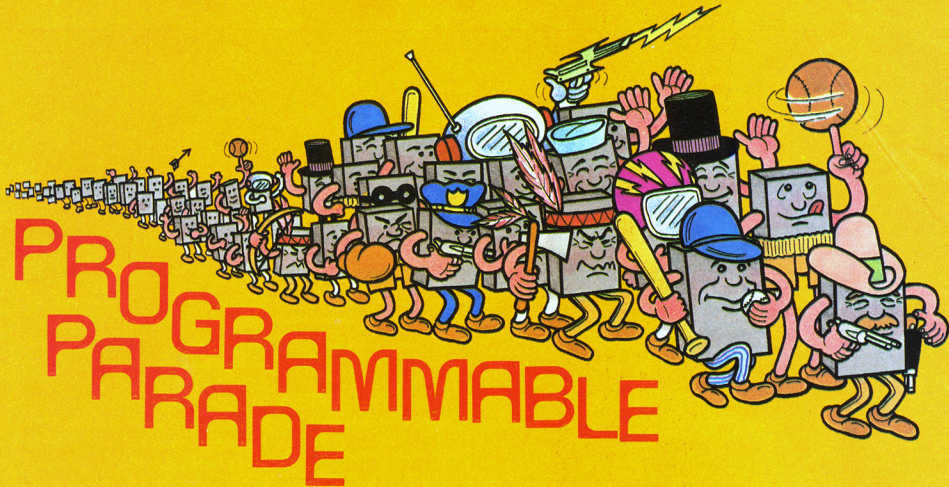
Bear in mind that your ship, like a shark, can **never** stop moving. Therefore, since it seems impossible to move vertically without going forward, most players assume they can't go from the top of the playfield straight down to the bottom in order to complete the maze.

Not so! There **is** a way to **temporarily** make strictly vertical moves. When this phase begins, push the stick all the way to the right, taking her to maximum speed. Then, when you reach a point at which a vertical move is needed to reach the next passage, simply push the joystick diagonally to the lower left to drop, or the upper left to rise straight up. This will simultaneously slow the ship to minimum speed while affording upward and downward control. Then, once you've reached the next passage, return to full speed to get ready for the next vertical route.

Once the fifth level has been conquered, you will next fly over a city and attempt to destroy the base station. This is fairly straight-forward stuff. After that, you can try the whole thing again. However, this time the Scramble Warriors are slightly more agile, so good luck, and keep on trekkin'!

Note: Because of operator-controlled options on many coin-op machines, all do not work on the same difficulty levels. Keep this in mind if you find a game much more difficult than described. It just means that you live in an area with some real hot-shot arcaders who have forced the arcade operator to re-set his machine up a notch or two (coin-ops often feature several difficulty levels) in order to keep from being skinned alive. Maybe you should consider another neighborhood.





PROGRAMMABLE PARADE

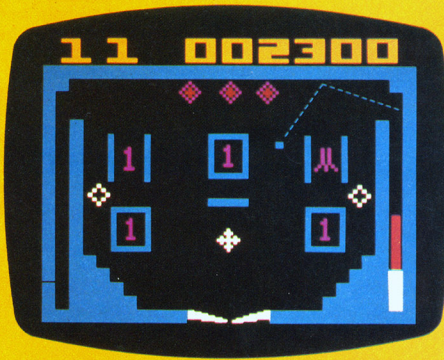
by Bill Kunkel and Frank Laney Jr.



ASTEROIDS



VIDEO PINBALL



Asteroids (Atari/CX 2649) is the long-awaited game that has had owners of Atari's VCS lining up to buy in record numbers. Advance demand ran so high that many retailers had to take reservations from eager arcaders anxious to make sure that they wouldn't be left out once 'Asteroids' arrived in the stores.

Why the long interval between the announcement of the cartridge and its actual release? Making a home version of this coin-op smash proved to be a vastly complicated process. The bugaboo was technology.

The original 'Asteroids' uses an intelligent Quadrascan monitor that

allows hi-res images to be drawn anywhere on the screen. This permits the machine to vary the speed and direction of each hunk of space debris. It is impossible to simulate the unique Quadrascan output on a traditional raster-scan screen such as television sets employ.

Another hurdle Atari designers had to overcome is that the typical coin-op game utilizes 16K of memory, about half

of which is allotted to the "attract mode," the little show the screen gives when nobody's playing. The VCS, even at its optimum, only had the capability of running a 4K program.

Note the use of the past tense. Development of a bank switching system has effectively doubled the capacity of the Video Computer System.

Even so, those who expect the home version to be as similar to its coin-op parent, as were **Space Invaders** or **Missile Command**, will be disappointed. Judged on its own merits, however, it is an astonishing success.

Played in the "fast" mode, 'Asteroids' is an exciting contest, with multi-colored

**Blast Through
Deep Space
with Asteroids!**

space rocks whizzing around the screen in several directions. Even the ever-popular "mystery ship" makes an appearance (if difficulty switches are set to the "A" position). They make surprisingly challenging targets, even in this home edition.

As most **Electronic Games** readers know, "Asteroids" casts the gamer as the skipper of a spaceship besieged by space rocks of various sizes. The craft can be rotated a full 360 degrees and has a front-mounted laser cannon to chop up the moonlets. When a large asteroid is hit, it breaks into smaller chunks. These, in turn, become interstellar pebbles if struck by a subsequent laser shot. The smaller the asteroid, the higher its point value.

Several options are available. One is the choice between "slow" and "fast" asteroids. The designation is a misnomer, since there's no real change in speed. What happens is that, in the "slow" mode, the space junk moves up and down the screen in relatively straight lines. Playing at the "fast" setting causes the rocks to veer when hit, creating havoc for the arcader who must simultaneously track numerous objects.

The player can also select the number of points needed to earn a bonus ship and whether the craft should be equipped with shields or hyperspace drive. Shields temporarily protect against collision with the asteroids, but they are a major drain on the engines. And keeping the shields up too long will make the ship explode. Hyperspace jumps the ship to a random point elsewhere on the screen. This is only good for life-and-death situations, though, because the new location is often even less hospitable than the previous one.



Since the best 'Asteroids' players generally try to maintain a position at the center of the screen, most use the thrust option sparingly. By pushing the joystick forward, the arcader moves the ship in the direction in which its nose is currently pointing. For abrupt stops, turn the ship around and apply thrust until forward momentum is negated.

The addition of color to the program—the coin-op is limited to black and white with a blue overlay—is a definite gain for the VCS edition. Especially pretty are the white asteroids, which explode in a rainbow when struck by the laser.



In **Stampede** (Activision/AX-011), designer Bob Whitehead provides arcaders with a novel situation. The player portrays an electronic horseman with a push-button lariat, ropin' steers and chasin' mavericks on the open range. Cleverly disguised as a cute-but-not-too-difficult kideo cartridge, "Stampede" is actually one of the sternest tests of hand-eye coordination yet devised by the human mind.

The joystick is used to steer the mounted wrangler up and down the left edge of the screen. A flick of the action

button shoots the rope out to snag one of the varicolored cows like a frog's tongue spearing an unwary fly.

The big challenge is to never allow one of the animals to thunder past the cowpoke and off the left edge of the playfield. He can keep the herd within bounds by lassoing some and nudging others by riding up beside them. The problem is the mavericks. These critters don't move a-tall, so they must be roped, or they'll definitely exit stage left. The black maverick cows are worth lots of extra points, however, and roping them will help earn the 1,000 needed to get a bonus horseman.

The visuals are excellent. The cows move at varying speeds, and the pony bucks when it runs into a stray and stumbles if it trips on a rock. At the higher speeds, this cartridge is, as its name suggests, a video stampede. So put on your spurs and chaps, slap that 10-gallon hat on your head and ride 'em cowboy!



Video Pinball (Atari/CX2648) tries to prove that pinball and programmable videogames are compatible, at



STAMPEDE



ICE HOCKEY

least as much as, say, oil and water. Whether Atari has succeeded in wedding the two forms will fuel debate among flipper fans and electronic arcade games alike for some time to come.

Atari made a good start by deciding to control the game with a single joystick—and then using the stick, not the action button, to direct the flippers. This method allows the player to employ the little bats at the bottom of the field one at a time, much as one would on a coin-op pinball machine. (Using the action buttons of both sticks, one for each flipper, might have been even closer to the ideal.)

There's a surprising variety of action in 'Video Pinball.' Three large square bumpers arranged in a big triangle dominate the table, which has the plunger chute on the right and an unguarded drain path on the far left. At the top in the center are three drop targets. These are worth 100 points each when hit and, if all three are eliminated, the multiplier of the main bumpers increases by one. (The bumpers score the multiplier times 100 points for each hit.) If all three drop targets are cleared, they reappear, and the cycle begins again.

Two roll-overs figure prominently in the game. The one on the left is initially worth 100 points times the number shown in the channel, which increases by one every time a ball passes through. At the end of a ball, however, it rings up an additional 1,000 points for each roll-over, up to a maximum of 4,000. The other one, easily identified by the Atari symbol, scores far fewer points, but if it's triggered four times, the player gets an extra ball. Don't get greedy, though; Only one bonus ball can be in reserve at any given time. The machine prints an Atari logo just above the flippers each time the gamer scores with the bonus ball roll-over.

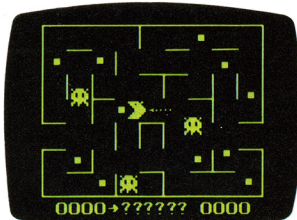
Just to add a little extra suspense, Atari threw in a special lit target. It blinks on just below the center bumper for four seconds at a time. Hitting it scores 1,000 points and makes the whole screen flash.

Pinballers often complain that video pinball fails because the player doesn't physically interact with the field. The cartridge partially overcomes this by allowing the arcader to apply little nudges. Holding down the action button lets the gamer tap the ball by pushing the joystick in the desired direction. Only the slightest push will work, since anything harder causes the game to tilt.

'Video Pinball' includes two difficulty



K.C. MUNCHKIN



MUNCHKIN PLAYFIELD

levels. The harder adds two more drains at the bottom of the playfield. There are four variations, two solitaire and two head-to-head. Either alone or with a friend, you can choose to have the multipliers reset after each ball or allow them to mount up through the entire course of the game. The latter, obviously, produces the higher scores.

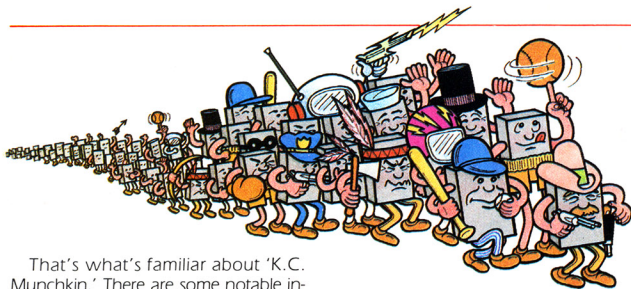
Although nothing short of an honest-to-goodness real pinball table will satisfy the purists, 'Video Pinball' will probably interest most videogamers.



K.C. Munchkin (*Odyssey 2*) is a rather amusing twist on the gobble game theme and earns the distinction of being the first of the type to become available as a programmable videogame cartridge. The arcader moves the munchkin around the maze using a joystick in an effort to scoop up the 12 munchies—eight one-point regular ones and four, three-point specials—before one of the three munchers can gulp it down to end the game. It is possible to scroll horizontally using the corridor of the maze that opens to the left and right edges of the screen.

As in **Pac-Man**, eating the special munchies strengthens the munchkin enough to turn the tables on its tormentors. If consumed before any return to the corral for recharging, the first muncher eaten is worth 5 points, the second scores 10 points and the third counts a big 20 points.

Clearing the entire maze causes the field to be replenished and the game to resume—only this time at a higher level of difficulty. Both the current score and the best total compiled during the current play session are shown at the bottom of the screen. As in *Odyssey's* **UFO**, there's a place for the proud record-holder to type in his or her name.



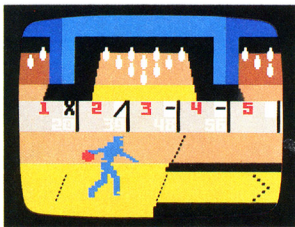
That's what's familiar about 'K.C. Munchkin.' There are some notable innovations as well. One departure is that there is a choice of mazes. Four basic designs are available in either standard or invisible form, and an option that produces a new configuration each time is also offered in both modes. Odyssey has capitalized on the flexibility of keyboard input to introduce true programmability to gobble games. That's right, arcaders can custom-design their own mazes! A simple system, which is thoroughly explained in the instruction folder, enables players to quickly add or subtract boundary lines anywhere on the field.

It goes against the gamer's credo to admit it, but 'K.C. Munchkin' may be just a little too easy, especially at the lower skill levels. Even the fact that the munchies move around the playfield does not balance the relatively slow movement speed, and the lack of a real killer instinct on the part of the munchers. The burden will clearly be on the gobble gaming gentry to design more byzantine mazes that pose a tougher test than the ones provided by the cartridge.

now have a quartet of reasonably realistic simulations that play well solitaire as well as head-to-head.

The cartridge features a non-scrolling, slightly angled rink with two-player teams manning each side. Each team's forward can skate the length of the ice, forechecking fiercely, but the defensemen are restricted to their half of the ice.

Since there are no referees to police things—"I always thought the game



PBA BOWLING

would be more fun without them," quips designer Al Miller—slashing, spearing and tripping are vital elements of strategy. If one of your men knocks a rival off his skates, the on-screen figure is out of commission for a few seconds.

The player nearest to the puck for each faction is given a stick with which to check, trip, steal the puck, carry, pass and shoot. When a player has possession of the disk it slides back and forth along the length of the blade of his stick. The puck's location on the blade at the moment it is shot determines the direction it travels.

'Ice Hockey' tests accuracy and timing more than simple hand-eye speed. Most will need considerable practice to master passing and shooting. Thanks to the positively wicked solitaire version, you'll be able to get plenty of that.

Don't be discouraged if, at first, the computer-coached team seems like Guy Lafleur and Tony Esposito compared to your imitation of the Winnipeg Jets. Playing time will teach you the nuances

of the board angles, how to deke around a defenseman and, perhaps most important, defend your goal.

Do not leave the crease! Not even in one-on-nobody situations. A sounder approach is to stand your ground in front of the net and dare the shooter to slap it past.

Two play variations are offered. The regular version is the one most hockey fans will prefer, while some will find the arcade-like action of the variants involving a slippery, ricocheting puck an interesting change.



PBA Bowling (Mattel/3333) will shock a lot of electronic keglers. Have you ever noticed the strange thing about video bowling games? The scores are always much, much higher than in real life.

Not this time. Arcaders who manage to score 200 will have earned the musical fanfare the system chirps to mark this milestone.

Participants start by setting the parameters for the game. Variables include the number of players (one to four), the slickness of the alley, the weight of the ball, which hand each roller will use, and whether regulation bowling or a "make the spares" contest will be played.

The opening playfield in 'PBA Bowling' shows a side view of the bowler standing next to the automatic return. Pushing the direction disk lets the on-screen athlete pick up his pin-buster. The two action buttons on the left edge of the controller position the figure anywhere along the starting line. The arcader then holds down the lower righthand action button, starting a white ball moving across the alley over the aiming spots. When the shot is properly lined up, letting go of the button initiates the approach. The gamer quickly presses the direction disk again to indicate how much of a curve the ball should make.

As with many Intellivision titles, 'PBA Bowling' will not be mastered quickly. This is an advantage in that a more difficult game will stand up better over the long haul. It may be a little frustrating until you get the right rhythm, admittedly, but when you can make those strikes and spares with consistency, there's no bowling cartridge quite as enjoyable as this one.

Ice Hockey (Activision/AX-012) is not only this company's first teamport title, but also its first 4K videogame (not counting the previously published **Bridge**). The extra length—most cartridges are 2K—provides designers the opportunity to add complexity and subtlety to their creations.

Sports games aren't the strong suit of the VCS, just like arcade games often don't look right on the Intellivision. To enable it to produce top-quality home versions of contests like **Breakout** and **Missile Command**, Atari traded high resolution graphics for faster on-screen movement. Mattel made the opposite choice as a result of its decision to concentrate on athletics as the subject of most of its cartridges.

But with 'Ice Hockey' joining Activision's **Tennis** and **Skating** and Atari's **Championship Soccer**, VCS owners



What Has Your TV Set Done For You Lately?

Sure, watching "the tube" is enjoyable a lot of the time. But today, home entertainment is much more than just broadcast TV. Today, your TV set can bring you movies you choose yourself to play any time you like. Fun and games. Problem-solving, self-improvement, and personal security. Unique, priceless memories of family and friends. Art you create yourself. It's a whole new world . . . the fascinating world of video.

Whether you're a video veteran, a beginner just getting your feet wet, or someone intrigued with the thrilling possibilities the field offers now and for the future, VIDEO Magazine should be your guide to this world.

Every month, VIDEO will show you how to *use* your TV, not just watch it. You'll read news of and invaluable test reports on the latest video equipment. You'll find sources, previews, and reviews of pre-recorded programs to buy or rent. You'll learn helpful home taping techniques: using a video camera, lighting, dubbing in audio, creating video art. You'll profit from expert technical advice. You'll explore all the alternatives to broadcast TV available today and the developing technologies coming tomorrow.

In short, you'll enjoy the most comprehensive information possible from the first and foremost video publication—and in a lively, thoroughly entertaining way.



VIDEO

It's worth watching every month!

Use this coupon to enter your subscription . . . or pick up the latest issue at your favorite newsstand

Mail to: VIDEO
Subscription Department
P.O. Box 1118
Dover, New Jersey 07801

YES! Please enter my subscription to VIDEO and send me 1 year (12 issues) at the regular subscription rate of \$15. (I'll be saving \$6 on the newsstand price of \$21.)

Name _____ (please print)

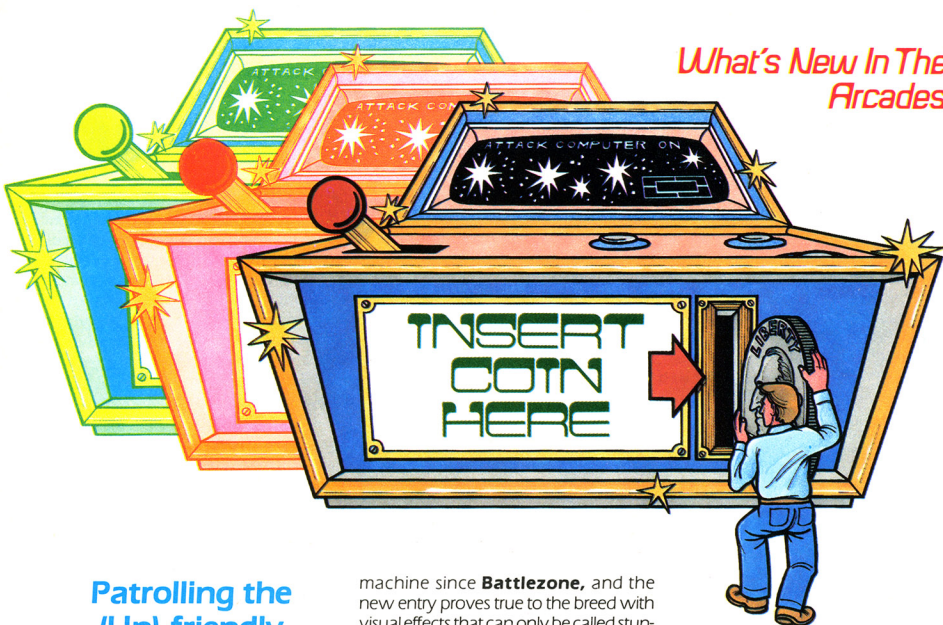
Address _____

City, State, Zip _____

My payment of \$15 is enclosed (check or money order made payable to VIDEO) Bill me later
Offer good for the U.S. only. Please allow up to 60 days for delivery of first issue.

EG219

What's New In The Arcades



Patrolling the (Un)friendly Skies

By Bill Kunkel

Amusement centers are becoming more colorful and exciting with every visit. Better-looking, -sounding and -playing games are one beneficial result of the competition among manufacturers for arcaders' quarters.

Yet this fierce rivalry has its negative side, too. It sometimes leads to the "follow-the leader" syndrome in which the success of a strikingly innovative game sparks a wave of thinly disguised re-makes or, at best, souped-up elaborations on the original concept.

Of course, when a coin-op company does try to do something fresh, instead of grinding out a carbon copy, the results can sometimes blow you away.

Atari has generally proven to be one of the most consistently inventive coin-op suppliers, so let's kick off this installment of "Insert Coin Here" with a look at one of the latest from Sunnyvale.

Red Baron (Atari)

Arcaders take the stick of a World War I bi-plane in this authentic flight simulation. Use of a realistic joystick with firing button mounted on the top of the grip handle gives a realistic feel during play.

Red Baron is Atari's first Quadrascan

machine since **Battlezone**, and the new entry proves true to the breed with visual effects that can only be called stunning. The high-resolution scanning system paints a fully animated landscape

that shifts as the plane dives, climbs and fights.

Quadrascan creates images as three-dimensional, crystalline objects, detailed schematic line drawings of reality. The process produces graphics that are unfailingly bright and clear.

Gamers, as World War I flying aces, pilot their primitive, propeller-driven aircraft across enemy lines. While flying the hazardous wartime skies, arcaders fire the front-mounted machine gun at a variety of tempting targets like blimps, ground installations and, of course, enemy bi- and tri-planes on similar missions aloft.

When the planes are dogfighting, machine gun bullets are represented by little pellet-like dots arcing through the air. Just like the pioneering sky-knights, arcaders must work without any targeting device, because sights hadn't been invented yet!

The mission becomes progressively more difficult. Eventually, everything but the horizon line is firing at the arcader's ship, with ground bases, blimps and rival planes trying to knock it out of the clouds. When the inevitable happens and the gamer's plane takes a lethal burst, the craft dives earthward and crashes in a burst of flame!

In light of Atari's record for games with

VANGUARD



a science fiction basis, *World War I* is certainly quite a departure. Yet anyone who gets a chance to try 'Red Baron,' especially in the sit-down floor model, will quickly learn that the far future doesn't have a monopoly on thrills.

Centipede (Atari)

Centipede presents some wildly unlikely on-screen characters romping through a game that utilizes a play-mechanic that should be completely familiar to every habitue of commercial amusement parlors. A horizontally mobile cannon fires straight up at targets, as in **Space Invaders**, but 'Centipede' gives this basic concept a few novel twists and turns those alien invaders never had.

One change is that the cannon is also capable of a small amount of vertical movement. Another is that, at the start of play, the field is full of . . . mushrooms? The centipede, an ugly creature with nearly a dozen body segments, immediately begins a serpentine journey toward the bottom of the screen through the corridors created by the mushrooms.

Players must eliminate the mushrooms, the centipede and the fleas and spiders which show up periodically. Centipede segments are somewhat like the targets in **Asteroids**; when a section is hit, it divides into two smaller ones. When a bug reaches the bottom of the screen intact, it turns around and wends its way to the top again. Unfortunately, new centipedes appear as soon as any reach the lower boundary of the field, so players will obviously be trying to keep them from getting past.

The spiders drop in to the action on a strand of web and can eat both mushrooms and the player. The fleas can bombard the gamer, but they also leave behind more mushrooms.

And then there's the scorpion, which turns ordinary mushrooms into poisonous toadstools. A centipede that gobbles a tainted goodie immediately sickens and drops toward the bottom of the playfield. The only way to put such a beast out of its misery is with a shot to the head.

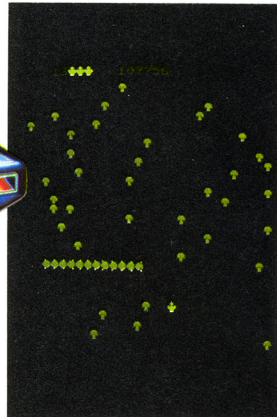
The game is fun, but the concept seems just a trifle bizarre—if not downright unpleasant. Bright graphics take some of the curse off this coin-op survival of the fittest, however, and the game is reportedly achieving the kind of success in arcades its strikingly original theme merits.

Red Alert (GDI)

Another new idea now in the arcades courtesy of GDI, which licensed it from



CENTPEDE offers gamers an interesting variation on the **Space Invasion** theme with fleas, spiders and scorpions replacing the traditional aliens



The centipede travels down-screen through rows of mushrooms while gamers move a cannon in four directions

Japan's Irem, is **Red Alert**. The arcader defends six cities from air by sonic jet fighters, attack helicopters laden with parachute bombs, MIRVs and heavy night bombers.

The gamer defends one city at a time, beginning with a battle against the sonic jet fighters in the skies of Paris over the Eiffel Tower and the Arc de Triomphe. Time is of the essence in each engagement. The onset of night is also a factor that must be considered. When darkness falls over Paris, searchlights cleave the gloom and hunt for the fighters, which can only be spotted when directly in one of the beams.

Next it's off to the Big Apple, where the arcader must prevent the helicopters from rearranging the New York skyline with their bombs. Fans of multi-phase coin-ops will then combat the enemy in Rome, London, West Germany and, ultimately, Japan. Each location is distinguished by its most recognizable landmarks, such as Big Ben in England and Mt. Fuji in Nippon.

If you've successfully defended all the

targets against this all-out attack, a rainbow appears in the sky over Paris along with the heartening words: "Peace Forever".

Unfortunately, calm is as fleeting in 'Red Alert' as in real life. A few seconds later the enemy is again belaboring the City of Light with its jets.

Vanguard (Centuri)

This is the latest potential hit from a company that has, almost overnight, won the respect of coin-op fans with its series of excellent space battle games. **Vanguard**, however, is especially indicative of some of the hottest trends currently sweeping the amusement centers.

It is for starters, a multi-phase game with 12—count 'em!—different fields. In it, spacejockeys steer their ships through a succession of dangerous scenarios.

Another hot feature found on 'Vanguard' is "continuous play". Time was when only the real experts got to experience the later stages of the multi-level machines. When a player loses in 'Vanguard' during, say, the second scenario, dropping a fresh quarter into the slot restarts the action from that point. (It's a little like watching an X-rated movie in an

adult book store movie booth.)

But perhaps 'Vanguard's' greatest importance lies in the fact that it is one of a handful of new videogame machines that talks. It doesn't just make jokes and insults, either. It greets players, warns of impending dangers and announces each new zone as the gamer enters it.

Of course, not all the audio is so helpful. Some may not appreciate the mocking laughter of the alien Kemilus while they struggle through the aptly named "bleak zone".

Graphics are not especially innovative, but they are nonetheless superb. They're so well-done that they stand out even in today's commercial arcades. And, of course, the audio isn't exactly chopped liver, either.

And so, noble coin-oppers, let me close this column with the words of Bob Dylan: "Don't follow leaders/Watch the parking meters" and with a stern warning to meet me here next issue with another pocket full of quarters.

Tempest [Atari]

Tempest is undoubtedly the most original entry into the coin-op world since **Asteroids**. This is the long-anticipated debut of full-color Quadrascan, Atari's vector graphics monitor—and the wait was certainly worth it!

Atari obviously wanted their first color game to be a real mind-blower, and 'Tempest,' with its eyeball-popping hires graphics and blinding play-speed, fits that bill perfectly. The game concept is both abstract and simple: players maneuver a laser-firing weapon around the perimeters of a series of geometric shapes. From the center of these universes come whizzing a whole catalog of alien nasties—Tankers, Pulsars, Flippers and Spikers among others—each posing its own unique threat. Pulsars and Tankers, for example, will obliterate the player's cannon if they make contact. The Flippers must be eliminated before they reach the perimeter or they will skitter after the cannon, grab it, and plunge it into oblivion. But the most devious alien devices are the Spikers, pinpoint objects that construct ever-elongating "spikes," which can impale the gamer's cannon during the re-charge phase that occurs after each universe is conquered. Players have both cannon and a "Super Zapper," which can be used only once per playfield, but which obliterates every alien entity on the screen.

At the easier play levels, arcaders can be content to merely spin around the



edge of the universes, firing continuously. Once play gets serious, however, it becomes necessary to devote at least some firepower to whittling down spikes. Once a universe has been conquered the recharge phase begins, visually similar to the hyperspace jump in **Star Raiders**. At this point the spikes streak outward into the void, impaling the cannon if it can't

avoid them.

'Tempest' is so wildly refreshing, so totally unlike any other videogame, it will have arcaders drooling over the prospect of color Quadrascan games yet to come. For the time being, however, 'Tempest' should keep everyone satisfied.



REPLAY

continued from page 61

to form electronic game clubs [see this issue's "Reader Poll"] so that enthusiasts can meet and play together.

★ ★ ★

A successful adventurer writes

It took some hunting, but I finally found your magazine. It was definitely worth the search! You are exactly what we electronic games fanatics need. After years of finding only an isolated article or column in electronics or video mags, it is extremely satisfying to have a specialty magazine dedicated exclusively to the subject of electronic gaming.

While I enjoyed the whole magazine, the information that you printed on the Atari VCS **Adventure** hidden message was of special interest to me, as that is my family's favorite game.

I lost no time in tracking down the clues [which had puzzled me in the past]. I had always chalked them up as nothing significant. After about an hour-and-a-half of trying various strange solutions to the problem, I finally solved it.

John Denk
Tinley Park, Ill.

Ed: We'll be getting more copies of future issues onto the newsstands, but the best way to assure a steady supply of EG is, of course, to subscribe.

★ ★ ★

THE JOYSTICK JURY WANTS YOU!

If the tremendous response to **Electronic Games** proves anything, it's that you are an unusually knowledgeable and opinionated bunch. That's good. It means you care about this hobby and really feel strongly about the things that affect it.

Her's your chance to air your views on electronic arcing in front of this magazine's entire readership. "Joystick Jury"; a column of reviews by readers, will begin publication in the issue after next.

All you've got to do to participate is follow a few simple rules:

1. Type (or clearly print) your comment on a separate sheet of paper that also includes your name and full address.
2. Keep comments brief and to the point—no more than 100 words.
3. Observe the rules of fairness and courtesy. "Joystick Jury" should be a forum for reasoned opinions, not an arena for name-calling.

Each issue we'll print the most interesting responses to create a symposium on the topic under examination by the jury. The issue's best comment, as judged by the editors of **Electronic Games**, will win a cash prize of \$25. (All submissions become the property of **EG**, and none can be returned.)

The First Topic: Controllers

There is quite a variety of control devices offered to the gaming community in both the commercial and home arcade fields. Some are good, some have flaws and others are especially suitable for certain types of games. Which do you like—or dislike—and why?

Deadline: March 15, 1982



SAVE ON VIDEO

ATARI \$135.95

Cartridge For Above

Asteroids \$26.49

**Missile Command, Image
Craze, Video Pinball,
Adventure, Warlords . . . \$22.49**

**Freeway, Kaboom, Breakout,
Night Driver, Air sea \$17.79**

**If desired cartridge not listed
write for other**

**MATTEL
INTELEVISION. . \$234.95**

**Boxing, Bowling, Space
Armada, Astrosmash . . . \$25.49**

**Baseball, Football, Soccer,
Tennis, Golf \$23.49**

**If desired cartridge not listed
write for others**

All items subject to price change and availability.

Add \$1.50 for shipping & handling.

Over 3 items 50¢ per additional item.

Shipping & handling for games \$4.00

Send check or money order to:

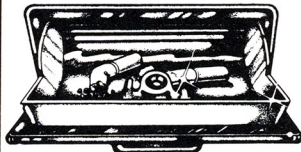
nik-nak 4 Eldard Lane

Cedarhurst, N.Y. 11516

Allow 3 weeks for delivery

Dealers inquiries invited

Help keep our forest from smoking.



Use your ashtray.

Don't be careless
with the future.



A Public Service of This Magazine
& The Advertising Council

THIS IS AN OXYGEN FACTORY.



DON'T BURN IT DOWN.



A Public Service of This Magazine & The Advertising Council



STAND ALONE SCENE

By Joyce Worley

Game-Time/General Consumer Electronics Corp./\$39.95

When Dick Tracy got bored, he called up his trusty friends down at police headquarters on his special Dick Tracy Wrist Radio. Now, when searching for a momentary diversion, you too can whip out your trusty wristwatch and—you guessed it!—play games!

Game Time is an electronic digital wristwatch that also plays four arcade-style games, **Firing Squad**, **Allen Assault**, **Missile Strike**, and **Blast Away**.

Used as a watch, 'Game-Time' displays the time and a continuously changing pattern on the face. The read-out is large and clear, and it seems to keep accurate time. The changing pattern occupying most of the face of the watch is attractive, and no doubt will generate a lot of interest from the people sitting next to you on the subway, craning their necks to see how late they are to work.

But it's when playing with the game functions that 'Game-Time' really shines. Press the selection button until the number of the game appears in the time display window. The right button starts a game with sound, while the left starts silent play (for those occasions when you want a quick round in class without the teacher catching on.)

'Firing Squad' is as cute a skill game as we've seen in such a small package. It

casts the player as a victim facing a six-man firing squad. But they've forgotten to tie him down. The arcader moves the on-screen symbol up and down the right side of the field in an effort to avoid the bullets. It starts out easy, with only one member of the firing squad getting off a shot at any one time. Soon they start firing volleys, however, and then look out! Dodge enough bullets and the old firing squad marches off the field, and a new, faster squad takes its place. When the victim is hit, the game ends. The watch prints the final score in the time display window. One point is scored for each bullet dodged. General Consumer Electronics Corporation must expect players

to get good at this—the scoreboard goes up to 999 and then rolls over.

Good strategy in 'Firing Squad' demands that you try not to get caught in a corner. There is no trouble scooting the human target around when the bullets are coming in ones and twos, but when a five-man team fires at once, it takes some real scurrying to avoid the five-bullet volley. If caught in the wrong corner when this happens, it's impossible to make it across the board to safety before the projectiles find their mark.

Game No. 2 is **Missile Strike**. Two rocket launchers at the bottom of the game field fire at enemy missiles crossing at different heights and speeds. Pressing the left game play button fires the left rocket launcher, and the right button fires the one on the right. When an enemy missile is hit, it scores points and a handsome explosion flashes on the watch face. The game ends when 30 missiles cross the air space.

Each low-speed target is worth nine points. The medium missiles count for 12 points, and high-speed ones score 15.

Game No. 3 is **Allen Assault**, a version of **Space Invaders**. Three alien attackers at the top of the screen are the targets for the arcader's earth station at the bottom. Invaders march back and forth across the play field, coming closer and closer while dropping bombs on the earth station. As they get nearer, the speed increases. Once a missile is fired, the earth station must move before firing again. Destroy the first three ships and three more appear. The game ends

GAME-TIME WATCH



when the earth station is hit three times, or the aliens land.

Destroying a bomb in midair scores three points, and each invader destroyed tallies six points. Each time the earth station is hit, the number of defenders remaining flashes briefly in the time display window before the game resumes.

The fourth game is **Blast Away**. Two rows of enemy tanks stand at the top of the game field. Fire a rocket toward the enemy tanks, and when it rebounds, use the game play buttons to bounce it back toward the tanks. The first time an enemy tank is hit, it disappears, leaving the driver. Shoot the driver and he disap-

pers in the middle, avoiding unnecessary movement of the launcher. If the launcher is in one corner and the rocket rebounds back into the opposite side, it's a real scramble to get there in time.

The tanks in the front row count 3 points; drivers count 6 points. Tanks in the second row are worth 9 points, and second row drivers tally 12 points. Again, when the score reaches 999, it rolls over, then begins again.

"Game-Time" is attractive in a new-wave-ish sort of way, but its looks may never win your heart. The play's the thing with this gadget—and there's real excitement in its well-designed arcade-style games.

at question-and-answer games as seen on TV.

The console features four keyboard panels and a like number of automatic scoring displays. A channel select switch chooses the game on the cartridge, and the volume control modulates the sound within a range from 1 (softest) to 10 (loudest).

"Omni" may be played by one to four players. Insert a cartridge into the console to activate the game. The players "sign in" to advise "Omni" how many are playing this round. A celebrity emcee then asks a question.

The questions are always in one of three forms. True/False stumpers are answered by pressing either T or F. Multiple choices are made by pressing the number of the correct reply, and fill-in questions require spelling out the correct word on the keyboard.



pears, to expose the back row of tanks and drivers. Blast away all of the enemy tanks with their drivers, and new ones appear. This time, however, the rocket caroms even faster.

If the rocket gets past the launcher, a new rocket appears. Miss five rockets and play ends.

This game is very similar to **Breakout**, and the same strategy applies. Try to take out the tanks at each end before trying

Omni/M.B. Electronics/Approx. \$120.00

How many times have you sat watching game shows and said, "I could do that!"? Well, here's something new for quiz show enthusiasts. The **Omni Entertainment System**, a programmable electronic console using 8-track tapes, lets arcaders try their hands

After choosing the answer, press the "enter" button to lock the response into "Omni." The master of ceremonies announces the correct answer and tallies the score of each participant, just like a video game show. Point values are assigned to answers depending on what game is played and how fast the player responds. The first correct answer entered wins the most points. A running tally of earned points appears in the dig-

tal display scoring window before each player.

There are several 20-question rounds on each of the four channels on the cartridge. Following the 20th question, 'Omni' verbally congratulates the winner, flashes the appropriate scoring window several times, and beeps to announce the game is over. To start another round, the player presses the "O/go" button and signs in again.

The "Omni" system comes packed with a "variety programmed game cartridge". Channel No. 1 stars Pat Summerall with a Sports Quiz. Channel No. 2 features Vincent Price asking movie/TV trivia questions. Channel No. 3 is a reaction quiz that tests general knowledge and demands quick responses. Channel No. 4 is a music quiz with two types of questions. Some merely test knowledge of Broadway shows, stars, and popular musicians. The others play "Name That Tune." Players guess the song titles, and the fewer the number of notes it takes to identify the ditty, the higher the score.

Throughout the game, the host makes occasional appropriate remarks, such as "That's using your head!", or "You really do know your sports!" Now and then a surprise voice may pop up, such as the most famous Georgian peanut farmer of them all, giving a little history lesson about the background of the song "Goober Peas."

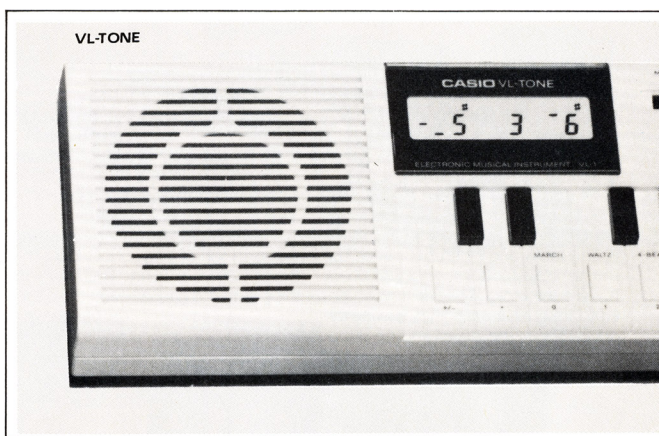
'Omni' may also be used as an 8-track tape player. Simply insert any 8-track tape cartridge into the door, press the enter button and hold it down until the audio part of the tape begins.

Additional cartridges are available for \$15 each. These include: **Musical Quiz, Re-Action Quiz, Vincent Price's TV Trivia, Vincent Price's Movie Trivia, Pat Summerall's Football Quiz, Pat Summerall's Baseball Quiz, Jeopardy, Password Plus, Words Words Words** (spelling bee), **For The Fun Of It** (party games from "Simon Says" to "Ghost"), **Sesame Street Games Hosted by Big Bird**, and **Pat Summerall's Sports Quiz**.

The 'Omni' unit is a handsome piece of equipment that can provide a lot of fun for a family that really likes quiz games. There's never been anything exactly like it available before, and everyone age 10 and up should get a kick out of it.

VL-Tone/Casio/\$69.95

Want something to do while waiting for a turn at "Asteroids"? Casio has a new diversion for people who like to fid-



dle with electronic gadgets.

The VL-Tone is a hand-held (1 1/4 in. by 3 in) electronic musical instrument that anyone can play with no training or exceptional talent. Better yet, electronic wizardry allows would-be virtuosos to pick out songs with one finger, record the results, and then play it back with the pitch and rhythm desired.

The 'VL-Tone' has five voices: piano, fantasy (synthesizer), violin, flute, and guitar. A three-position octave switch further expands the 17-note keyboard.

After recording a tune, it is possible to blend in one of ten background rhythms: march, waltz, four-beat, swing, rock, fast rock, bossanova, samba, rumba, and beguine. These rhythms can also be speeded or slowed, producing an unexpectedly large variety of tempos.

The buttons on this attractive unit are conveniently arranged in keyboard sequence. Tickle the ivories on manual, or use the recording feature which remembers up to 100 notes. To make an effective "name that tune" game, record the first lines of several songs, then use the one-note playback key to give clues. As if that weren't enough, a flick of a switch turns the keyboard into a full-featured Casio calculator.

The 'VL-Tone' operates on batteries or with an optional AC adaptor. Sound emerges either through the instrument's own speaker, or it can be linked to an audio amplifier or radio cassette recorder.

The drawback of this unit is that you can play only one note at a time; chording is not possible. This means that all songs must use the pre-recorded rhythms as the bass. Another problem is that the buttons which take the place of

keys are rather small and closely placed if you happen to be ham-handed.

But these limitations aside, the 'VL-Tone' offers a lot of fun in a tiny package. Even though it doesn't tell time or play **Space Invaders**, Casio's device is capable of stealing the heart of every would-be musician who just happens to also be interested in electronic toys.

Head to Head Electronic Boxing/
Coleco/\$29.95

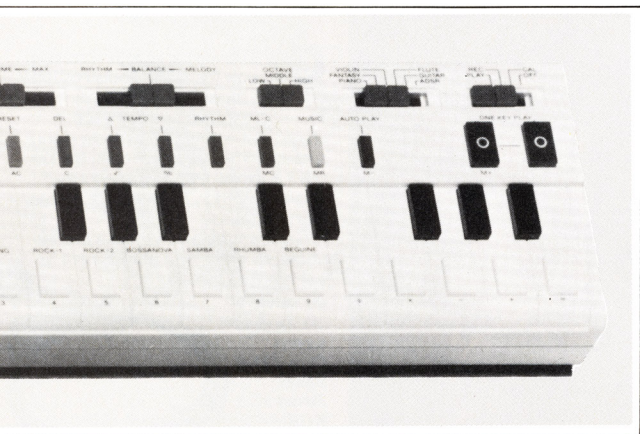
Head to Head Electronic Boxing, a game for the Sugar Ray Leonard in all of us, brings the drama of the squared circle to the hand-held field.

The unit features controls for two players, separated by the boxing ring. Each player has two buttons, used for blocking and punching, and a joystick to move his man around the ring.

To begin the game, slide the game select switch to one- or two-player mode, then press either button to start the first round. An overhead view of the two boxers appears in the ring. The boxers automatically move to the center, touch gloves, and then return to their corner. The Gillette "Look Sharp" march plays, and the action commences.

By using the joystick, the arcader moves the boxer forward, back, right or left. When the boxer comes within striking distance, keep pressing the punch button to control the boxer's right arm. If your opponent is on the offensive, use the other button to block with the left.

Should either boxer be knocked down, the referee automatically appears and moves the standing boxer back to his corner. The downed pugilist flashes,



than expected from the size of the unit. The boxers move all the way across the ring, but are limited to only two parallel paths. That means the width of the ring is not utilized at all! And the joystick controllers are so diminutive that players will feel they're using doll-sized levers.

The size of the unit is also a little awkward. It's too big to be hand-held, yet when used as a table-top game, the two players are almost on top of each other while throwing their punches.

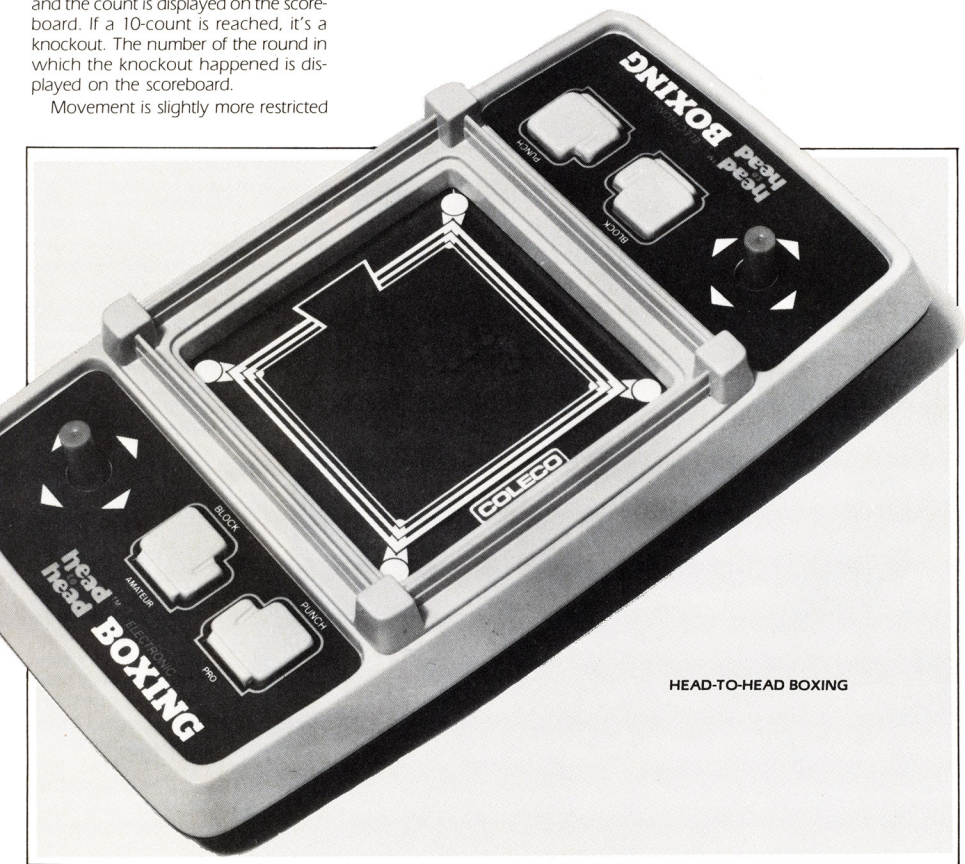
But these are problems whose importance must be weighed by the individual arcader. 'Head to Head Electronic Boxing' is a highly competitive game, whether played against a live opponent or against the computer. The action is fast and the images are bright and clear.

The unit can provide some good fist-ic fun within the limitations detailed earlier.



and the count is displayed on the scoreboard. If a 10-count is reached, it's a knockout. The number of the round in which the knockout happened is displayed on the scoreboard.

Movement is slightly more restricted



HEAD-TO-HEAD BOXING

tail display scoring window before each player.

There are several 20-question rounds on each of the four channels on the cartridge. Following the 20th question, "Omni" verbally congratulates the winner, flashes the appropriate scoring window several times, and begins to announce the game is over. To start another round, the player presses the "Olgo" button and signs in again.

The "Omni" system comes packed with a "variety programmed game cartridge". Channel No. 1 stars Pat Summerall with a Sports Quiz. Channel No. 2 features Vincent Price asking movie/TV trivia questions. Channel No. 3 is a reaction quiz that tests general knowledge and demands quick responses. Channel No. 4 is a music quiz with two types of questions. Some merely test knowledge of Broadway shows, stars, and popular musicians. The others play "Name That Tune." Players guess the song titles, and the fewer the number of notes it takes to identify the ditty, the higher the score.

Throughout the game, the host makes occasional appropriate remarks, such as "That's using your head!" or "You really do know your sports!" Now and then a surprise voice may pop up, such as the most famous Georgian peanut farmer of them all, giving a little history lesson about the background of the song "Goober Peas."

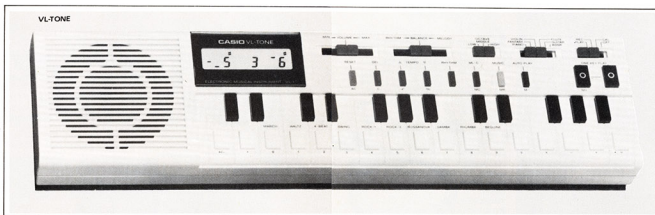
"Omni" may also be used as an 8-track tape player. Simply insert any 8-track tape cartridge into the door, press the enter button and hold it down until the audio part of the tape begins.

Additional cartridges are available for \$15 each. These include: **Musik Quiz, Re-Action Quiz, Vincent Price's TV Trivia, Vincent Price's Movie Trivia, Pat Summerall's Football Quiz, Pat Summerall's Baseball Quiz, Jeopardy, Password Plus, Words Words Words** (spelling bee), **For The Fun Of It** (party games from "Simon Says" to "Ghoses!"), **Sesame Street Games Hosted by Big Bird**, and **Pat Summerall's Sports Quiz**.

The "Omni" unit is a handsome piece of equipment that can provide a lot of fun for a family that really likes quiz games. There's never been anything exactly like it available before, and everyone age 10 and up should get a kick out of it.

VL-Tone/Casio/\$69.95

Want something to do while waiting for a turn at "Asteroids"? Casio has a new diversion for people who like to fid-



dle with electronic gadgets.

The VL-Tone is a hand-held (11 3/4 in. by 3 in.) electronic musical instrument that anyone can play with no training or exceptional talent. Better yet, electronic wizardry allows would-be virtuosos to pick out songs with one finger, record the results, and then play it back with the pitch and rhythm desired.

The VL-Tone has five voices: piano, fantasy (synthesizer), violin, flute, and guitar. A three-position octave switch further expands the 17-note keyboard.

After recording a tune, it is possible to blend in one of ten background rhythms: march, waltz, four-beat, swing, rock, fast rock, bossanova, samba, rumba, and beguine. These rhythms can also be speeded or slowed, producing an unexpectedly large variety of tempos.

The buttons on this attractive unit are conveniently arranged in keyboard sequence. Tickle the wories on manual, or use the recording feature which remembers up to 100 notes. To make an effective "name that tune" game, record the first lines of several songs, then use the one-note playback key to give clues. As if that weren't enough, a flick of a switch turns the keyboard into a full-featured Casio calculator.

The VL-Tone operates on batteries or with an optional AC adaptor. Sound emerges either through the instrument's own speaker, or it can be linked to an audio amplifier or radio cassette recorder.

The drawback of this unit is that you can play only one note at a time; chording is not possible. This means that all songs must be used the pre-recorded rhythms as the bass. Another problem is that the buttons which take the place of

keys are rather small and closely placed if you happen to be hand-handed.

But these limitations aside, the "VL-Tone" offers a lot of fun in a tiny package. Even though it doesn't tell time or play **Space Invaders**, Casio's device is capable of stealing the heart of every would-be musician who just happens to also be interested in electronic toys.

Head to Head Electronic Boxing/
Coleclo/\$29.95

Head to Head Electronic Boxing, a game for the Sugar Ray Leonard in all of us, brings the drama of the squared circle to the hand-held field.

The unit features controls for two players, separated by the boxing ring. Each player has two buttons, used for blocking and punching, and a joystick to move his man around the ring.

To begin the game, slide the game select switch to one- or two-player mode, then press either button to start the first round. An overhead view of the two boxers appears in the ring. The boxers automatically move to the center, touch gloves, and then return to their corner. The Gillette "Look Sharp" march plays, and the action commences.

By using the joystick, the archer moves the boxer forward, back, right or left. When the boxer comes within striking distance, keep pressing the punch button to control the boxer's right arm. If your opponent is on the offensive, use the other button to block with the left.

Should either boxer be knocked down, the referee automatically appears and moves the standing boxer back to his corner. The downed pugilist flashes,

and the count is displayed on the scoreboard. If a 10-count is reached, it's a knockout. The number of the round in which the knockout happened is displayed on the scoreboard.

Movement is slightly more restricted



HEAD-TO-HEAD BOXING

than expected from the size of the unit. The boxers move all the way across the ring, but are limited to only two parallel paths. That means the width of the ring is not utilized at all. And the joystick controllers are so diminutive that players will feel they're using doll-sized levers.

The size of the unit is also a little awkward. It's too big to be hand-held, yet when used as a table-top game, the two players are almost on top of each other while throwing their punches.

But these are problems whose importance must be weighed by the individual archer. "Head to Head Electronic Boxing" is a highly competitive game, whether played against a live opponent or against the computer. The action is fast and the images are bright and clear.

The unit can provide some good fun within the limitations detailed earlier.

Crash! There's the sound of breaking through the night. Footsteps run down the street, and a siren wails. Tires squeal on the pavement as the cops give chase. "Rat-a-tat-tat" — a machine gun spits lead! Then the police open fire. Kapow! A rain of .44 bullets, then screams and finally silence. The boys in blue have won this round.

Gamers have always had a fascination with crime and punishment, as witnessed by the popularity of old standards

such as **Clue, 221-B Baker Street** and **KGB.**

Although non-electronic gamedom offers many crime and detection contests, they haven't yet been adapted to our hobby.

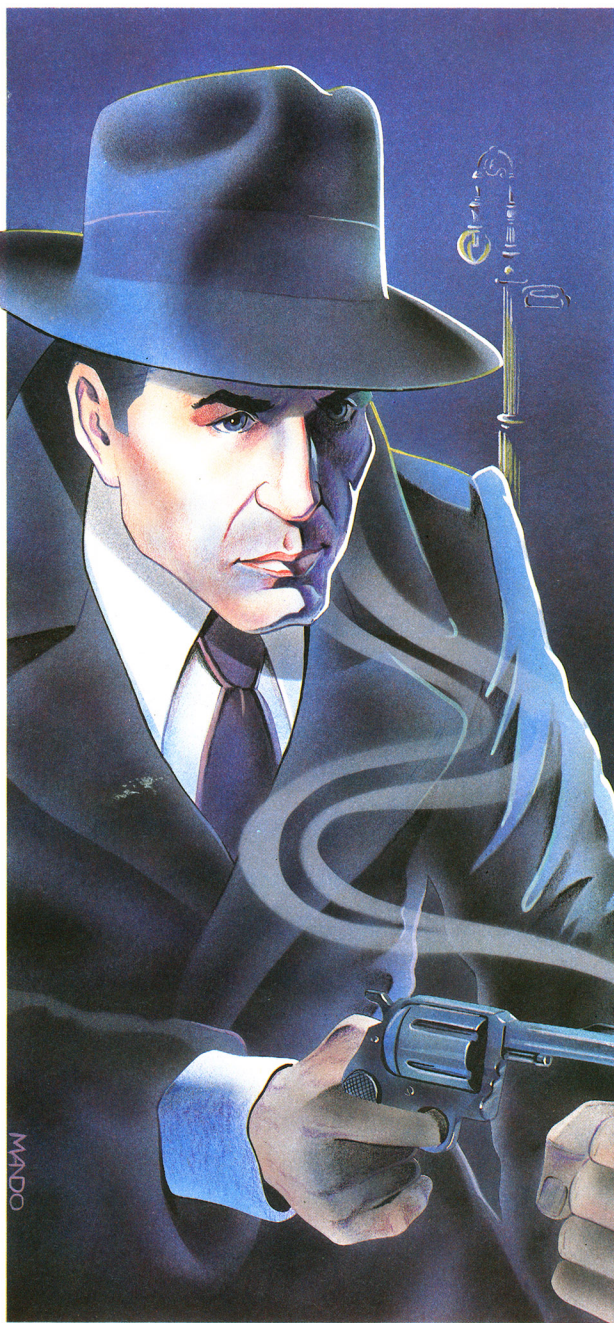
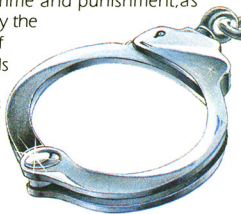
Arcaders have had little opportunity to play detective. Players of Atari's **Maze Craze** know that this is a chase game loosely based on cops pursuing robbers. In **House of Usher** by Crystalware, adventurers must solve a mystery in order to win. And, of course, **Master Mind** and its clones require the player to use the power of deduction to solve the puzzle. Rumors persist that a software publisher is working on a crime game. But up to now, lovers of crime games have had to content themselves with standard boardgames if they want to spend an evening making like Sherlock Holmes or Nick Danger, Private Eye.

Two notable exceptions are the electronic stand-alones

Stop Thief (Parker Brothers/ \$33.00) and **Electronic Detective** (Ideal/ \$40.00)

which offer gamers a chance to pit their wits against computer technology. In "Stop Thief", the players are private detectives, searching for a computer-controlled felon whom they must track using sound clues generated by a handheld microprocessor.

The game comes with a map of 19 different locations where the thief can commit the crime.





CRIME DOES NOT PAY



ELECTRONIC DETECTIVE from Ideal gives gamers the chance to cross-examine a computer



Pursue a felon through maze-like city streets in the electronically-enhanced board game, **STOP THIEF**

The object is to arrest criminals and earn rewards. The Electronic Crime Scanner allows gamers to eavesdrop on the thief, so they can hear every move he makes on the board.

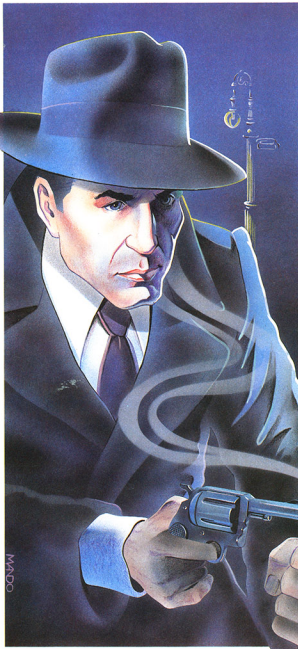
To start the game, press the clue button and hear the thief committing his crime. The display window shows the number of the building or the street where the crime is taking place. Each gumshoe's pawn moves by dice-throw toward the building. Players begin a turn by pressing the clue button and the Electronic Crime Scanner gives a new sound-clue to the thief's actions: crossing a

squeaking floor, opening a door, breaking glass in a window, running along the street, or entering the subway. Players know how many moves the thief can make each turn [two spaces, from one numbered square to another]. By process of elimination, they determine where he is located in the building, or through which door or window he has left the scene of the crime. For example, the sound of breaking glass indicates the crook has gone through a window. Try to locate the window that is the proper number of spaces from the location in the building where the crime was

committed.

Since each building has several locations marked in red where a thief can perpetrate a crime, it takes considerable deduction to interpret the sound clues. But there is occasional help available, in the form of Tipsters. A sleuth card allows the shamus to buy a tip, and the display readout shows the exact location of the thief at that time. This is the only information that the crime scanner provides which is not to be shared among all the players, so be sure to hide the display when the inside information appears.

continued on page 81



Joyce Worley

Crash! There's the sound of breaking through the night. Footsteps run down the street, and a siren wails. Tires squeal on the pavement as the cops give chase. "Rat-a-tat-tat" — a machine gun spits lead! Then the police open fire. Kapow! A rain of .44 bullets, then screams and finally silence. The boys in blue have won this round.

Gamers have always had a fascination with crime and punishment, as witnessed by the popularity of old standards such as **Clue, 221-B Baker Street** and **KGB**. Although non-electronic gamedom offers many crime and detection contests, they haven't yet been adapted to our hobby.

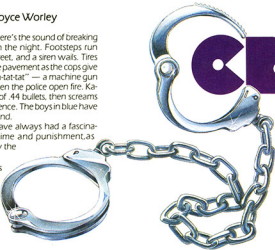
Arcaders have had little opportunity to play detective. Players of Atari's **Maze Craze** know that this is a chase game loosely based on cops pursuing robbers. In **House of Usher** by Crystalware, adventurers must solve a mystery in order to win. And, of course, **Master Mind** and its clones require the player to use the power of deduction to solve the puzzle. Rumors persist that a software publisher is working on a crime game. But up to now, lovers of crime games have had to content themselves with standard boardgames if they want to spend an evening making like Sherlock Holmes or Nick Danger, Private Eye.

Two notable exceptions are the electronic stand-alones

Stop Thief (Parker Brothers/\$33.00) and **Electronic Detective** (Ideal/\$40.00)

which offer gamers a chance to pit their wits against computer technology. In **Stop Thief**, the players are private detectives, searching for a computer-controlled felon whom they must track using sound clues generated by a hand-held microprocessor.

The game comes with a map of 19 different locations where the thief can commit the crime.



CRIME DOES NOT PAY



ELECTRONIC DETECTIVE from Ideal gives gamers the chance to cross-examine a computer



Pursue a felon through maze-like city streets in the electronically-enhanced board game, **STOP THIEF**

The object is to arrest criminals and earn rewards. The **Electronic Crime Scanner** allows gamers to eavesdrop on the thief, so they can hear every move he makes on the board.

To start the game, press the clue button and hear the thief committing his crime. The display window shows the number of the building or the street where the crime is taking place. Each gumshoe's pawn moves by dice-throw toward the building. Players begin a turn by pressing the clue button and the **Electronic Crime Scanner** gives a new sound-clue to the thief's actions: crossing a

squeaking floor, opening a door, breaking glass in a window, running along the street, or entering the subway. Players know how many moves the thief can make each turn [two spaces from one numbered square to another]. By process of elimination, they determine where he is located in the building, or through which door or window he has left the scene of the crime. For example, the sound of breaking glass indicates the crook has gone through a window. Try to locate the window that is the proper number of spaces from the location in the building where the crime was

committed.

Since each building has several locations marked in red where a thief can perpetrate a crime, it takes considerable deduction to interpret the sound clues. But there is occasional help available, in the form of Tipsters. A sleuth card allows the shamus to buy a tip, and the display readout shows the exact location of the thief at that time. This is the only information that the crime scanner provides which is not to be shared among all the players, so be sure to hide the display when the inside information appears.

continued on page 81



READER POLL

Response to the first **Electronic Games** Reader Poll was so overwhelming that we've decided to make it a regular feature of the magazine. You can help us make this exactly the kind of publication you want by taking a few minutes to fill out the questionnaire below. We'll begin reporting on the answers, starting with our first poll, in the next issue of **Electronic Games**.

Please return this ballot—or a photo copy if you prefer to keep your copy in perfect condition—to: **Electronic Games, 235 Park Ave. South, New York, N.Y. 10003.**



Sex: Male _____ Female _____
 Age: Under 16 _____ 16-25 _____ 26-40 _____ Over 40 _____
 How many times **in the last month** have you participated in any of the following electronic gaming activities:
 Visited a coin-op amusement center _____
 Played a stand-alone electronic game _____
 Played a programmable videogame _____
 Played a computer game _____

If you presently own a programmable videogame, how many cartridges have you purchased within the past 12 months? _____
 How many other people, besides yourself, will read this issue of **Electronic Games**? _____

Please rate the following features in this issue from 1 (awful) to 10 (great):
 Switch On! _____ Q&A _____ Test Lab _____ E.G. Hotline _____
 New Products _____ Computer Playland _____
 Programmable Parade _____ Stand-Alone Scene _____
 Arcade Spotlight _____ Insert Coin Here _____ Inside Gaming _____
 Strategy Session _____ Passport to Adventure _____ Players Guide _____

The article I liked best in this issue was: _____

The article I liked least in this issue was: _____

The article I would most like to read in an upcoming issue is: _____

Please rate the following subjects from 1 (not very interesting to me) to 10 (of great interest to me):

Fantasy & Science Fiction _____ Sports _____ Wargames _____
 Coin-op games _____ Videogames _____ Computer games _____
 Would you be interested in joining a nationwide club for electronic games to be sponsored by this magazine? Yes _____ No _____

My favorite videogame cartridges are:

1. _____
2. _____
3. _____

My favorite computer games are:

1. _____
2. _____
3. _____

My favorite coin-op games are:

1. _____
2. _____
3. _____



**Don't want to mar your copy of
 Electronic Games?
 Feel free to photocopy this page.**

CRIME

continued from page 79

In order to arrest the thief, the player's pawn must move on or next to the exact location where the thief is. Press the arrest button and enter the location of the thief in the scanner. Sirens signal the arrival of the police. If the guess is wrong, the thief gives the cops a raspberry. If correct, but unsuccessful, there'll be some warning shots, and then the thief will laugh at the cops while escaping. A successful arrest ends with the police carting the criminal off to prison. The detective making the arrest collects the reward money from the bank. Then the game commences anew, with another crime to be solved. The first player to accumulate \$2500 in reward money is the winner.

'Stop Thief' has players pursue and capture a criminal right at the scene of the crime, when it is being committed. 'Electronic Detective,' on the other hand, permits detectives to cross-examine suspects after the crime has been committed. There are 20 people together in the city. One is murdered, and the remaining 19 flee to different parts of the metropolis. The object is to question all suspects, compare their alibis, and determine who is guilty of the murder.

'Electronic Detective' uses a computer to help with these deliberations. Players choose between three difficulty levels, "Gumshoe" (easiest), "Sleuth" (medium), and "Master Detective" (the most difficult setting). After entering the desired level, choose the number of players (one to four). Then the computer fires two gun shots and plays a funeral dirge. The display window shows the victim's number and the location of the body.

All players enter this information on their case fact sheets provided with the game. Then gamemasters start grilling the remaining 19 characters to find the killer. To help, i.d. cards are provided for each character. Place the i.d. card of the suspect on the tray for this purpose on the game unit. Press 'suspect,' enter his number, and hit 'enter.' The computer will furnish the alibi: who he was with, and where he was at the time of the murder. The detective may also ask the suspect a private question without telling the other players what is asked or what answer is given.

Players gather the information from each suspect and enter it onto the case fact sheets. Gradually, a picture emerges of the gender of the murderer, where the killer went afterward, and what weapon was used. By cross-checking the alibis, the guilty party can be found. Then, in Agatha Christie fashion, the detective makes his accusation. If the sleuth is mistaken, "no" flashes on the display board, and the player is out of the game. A correct accusation causes police sirens to sound, while the display flashes the murderer's number and a "yes."

Both 'Stop Thief' and 'Electronic Detective' make interesting use of the computer. In 'Stop Thief,' the crook is actually moving around during the game. Detectives are not dealing with a static condition, but rather an ever-evasive criminal, who is all too capable of outwitting the law. Just when players think they have the felon, he moves to another spot, and the chase must begin anew. In 'Electronic Detective,' the computer handles the alibis of all 19 suspects, answering questions and providing information which will ultimately lead to the arrest of the killer—players hope. In this case, though, the computer is also capable of fabrication. When the guilty suspect is questioned, he can lie in some instances.

In both cases, it would hardly be possible to play such complicated scenarios without the help of computer technology. Furthermore, and this must be unique for crime games, the computer makes it possible for these games to be played solitaire. Now everyone can be the good guy, and no one has to be "it."



COMPUTER PLAYLAND

continued from page 57

Meteoroids (Spectral Associate/Color Computer/16K) finally lets owners of this newest of the microcomputers join the legions of arcaders who've become devoted destroyers of space rocks over the last couple of years. It ought to be manna from heaven for those who have had to make do with the feeble games produced for this machine thus far.

Considering the limitations of the x-y coordinate graphic system forced on the

designer by the rasterscan technology of the usual computer monitor, movement on the hi-res playground is very smooth and quite reminiscent of the coin-op which it resembles.

Before the real action starts, it even shares the familiar monochromatic appearance of **Asteroids**, too. Once one of the player's photon torpedoes scraggs a meteoroid, however, the arcader will be attempting to dodge a splendid shower of multi-colored debris or face destruction.

And if the player is hit by a meteoroid, debris or a shot from the pesky alien invader, the whole screen lights up like a veritable rainbow. It is such moments that justify the designing of this game especially for the Color Computer.

After loading the machine language cassette program, the program asks the arcader for his name—"for the mortician"—and the level of difficulty desired, from 0 to 15. The scale refers not to the number and speed of the meteoroids, which are adequately challenging at all levels, but to the frequency of the alien invader's appearances.

One major problem with the program is that it requires **both** joysticks. One is used to maneuver, accelerate and fire torpedoes, while the other must be employed to aim and jump through hyperspace. Figuring out a way to conveniently manipulate both sticks and press the two buttons while still maintaining enough concentration to dodge the meteoroids is quite a trick, indeed.

When a large meteoroid is hit, it breaks up into two medium-size ones. When one of these is blasted, it divides into a pair of small ones. Scoring is 20 points for the large rocks, 50 points for the mid-size ones and 100 points for the smallest. Destroying an alien craft counts 1,000 points. Bonus ships, up to a maximum of four, are earned each time the arcader tallies 10,000 points.

Attaining high scores depends on a compromise between the player's skill at destroying the meteoroids and zapping aliens.

When the arcader's four ships are finally destroyed—invariably with all games of this type, of course—the program's title page returns with a recap of the name, score and level of difficulty for the four best rounds in the play session underway. The computer then asks if the player would like to try another game.

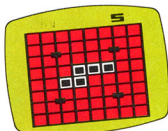
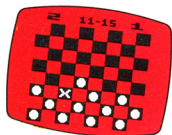
Defects aside, the answer more often than not is likely to be "yes." (Ross Chamberlain)



Coming **NEXT** in electronic GAMES

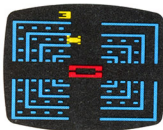
Here Come the Lady Arcaders!

Gaming parlors were once as exclusively male as the old corner barbershop. Times have changed. Today's female gamers can blast an asteroid or smash a space invader with the best of them. Meet the lady arcaders in next issue's cover feature.



Videogame Outlook 1982

If you thought 1981 was fantastic, wait till you hear about the big plans the videogame companies are making for the next 12 months.



Leaders of the Pac-(man)

Can a game without spaceships, aliens and big explosions find happiness in the world of electronic arcingid? Just ask the millions of players who have made Pac-Man and similar gobble games a huge success in both the home and coin-op fields.



Slam Dunk!

You don't have to be Moses Malone or Marques Johnson to be an all-star at electronic basketball. Next month, **EG** examines all the hoop simulations from hand-helds to deluxe computer programs.



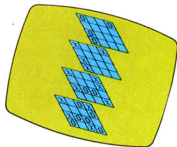
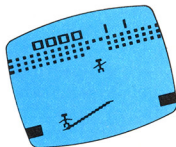
The Players Guide to Electronic Wargames

From the battlefields of the ancient world to the planet-busting star wars of the far future, **Electronic Games** presents an in-depth report on the hot new military strategy games.



There'll be plenty of other articles and features of interest to arcade addicts, plus these regular columns:

- ★ **Switch On!**
- ★ **Q&A**
- ★ **Inside Gaming**
- ★ **Arcade Spotlight**
- ★ **Computer Playland**
- ★ **Programmable Parade**
- ★ **Stand-Alone Scene**
- ★ **Readers Replay**
- ★ **EG Hotline**
- ★ **Strategy Session**
- ★ **Insert Coin Here**
- ★ **Passport to Adventure**
- ★ **New Products**
- ★ **Test Lab**

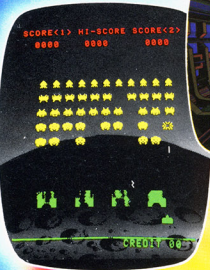


So watch for the third issue of **Electronic Games**

On Sale
MARCH 14, 1982

Screens of Fame and Fortune!

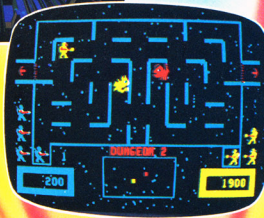
SPACE INVADERS



OMEGA RACE

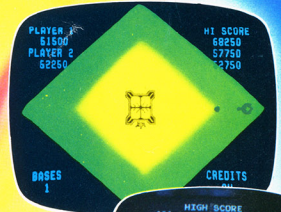


WIZARD OF WOR



GALAXIAN

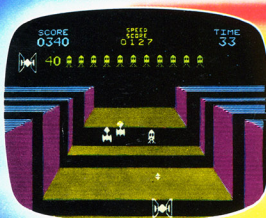
SPACE ZAP



RALLY-X



SPACE ENCOUNTERS



PAC-MAN



The 5 Missions of GORF

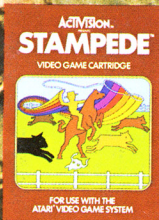
STAMPEDE™

THE TOUGHEST CHALLENGE KNOWN TO MAN.

Hey, you! Greenhorn. Come on out and play like a man! With Stampede™ by Activision. One of the quickest, toughest, trickiest video games to ever go with an Atari® or Sears video game system. You can't just "bull" your way through this video game. Stampede takes real smarts and lots of know-how. Not to mention expert ridin', ropin', and herdin'. Enough said. Reach for Stampede and accept the challenge. Because, after all, you can't be a dude all your life.



AND THAT'S NO BULL.



 **ACTIVISION™**