FDC 50080

VideoGames
& Computer Entertainment

T.M.

December 1989 $2.95
Canada **$3.95**

Clash of the Titans:
TurboGrafx-16 and Genesis Buyer's Guides

Move Out— Hard Drivin' Video Games

An Inside Look at Game Development

Sega's Altered Beast
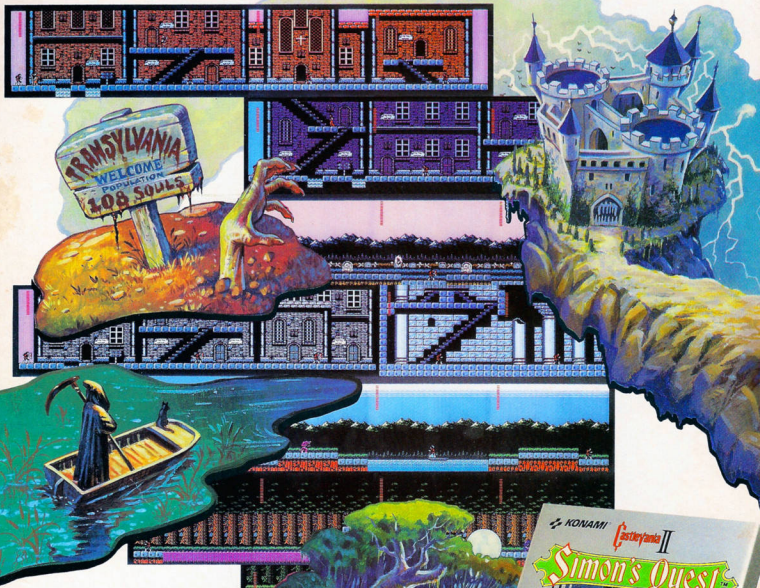
Maps and Tips:

Capcom's MegaMan 2

ALSO: The Best-Selling Games of All Time!

A NICE PLACE TO VISIT, BUT YOU WOULDN'T WANT TO DIE THERE.

Transylvania's vilest tourist attraction is awake and waiting to amuse.

After being shutdown by a sharpened stake in Konami's Castlevania,™ Dracula's thirsting for revenge in Castlevania II —Simon's Quest™ for Nintendo.®

Your only hope of destroying his curse and surviving this quest are clues from cowardly villagers that'll lead you through graveyards, mansions and werewolf filled forests in search of hidden daggers, flame whips and magic potions.

But be warned. When day turns into night, your return ticket from this terror trip could be cancelled!

KONAMI®

Castlevania™ and Castlevania II – Simon's Quest™ are trademarks of Konami Inc. Konami Inc. 815 Mittel Drive, Wood Dale, IL 60191 (312) 595-1443. Konami® is a registered trademark of Konami Industry Co., Ltd. Nintendo® and Nintendo Entertainment System® are registered trademarks of Nintendo of America Inc.

THE ORIGINAL CASTLEVANIA HAS RISEN AGAIN!

The shortage is over. And this classic Konami thriller is arriving by the casket-load everyday. Look for it wherever great games are sold!

CIRCLE #101 ON READER SERVICE CARD.

C O N T E N T S

FEATURES

C O N T E N T S

REVIEWS

D E P A R T M E N T S

Cover: As we enter the holiday season,
the next-generation game consoles,
NEC's TurboGrafx-16 and Sega's
Genesis, face off against each other.

Art: Alan Hunter
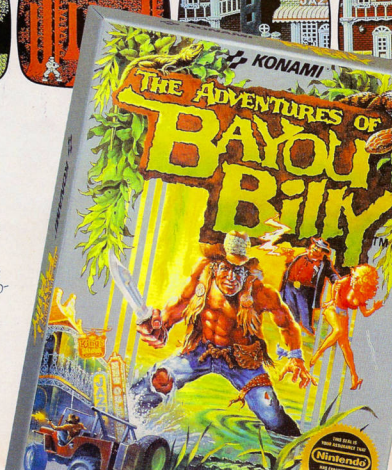
LETTER FROM THE EDITOR

A little more than a year ago, the first issue of VG&CE hit the newsstands. Since that time, the magazine has been incredibly well received by the electronic-gaming community. As you can see by the growing size of the magazine—196 pages this issue—it's doing well with our advertisers, also. They know that our readers are die-hard game players who want to know what will be coming to their stores—and, therefore, their game machines.

But we still aren't totally happy, yet. We still feel that the magazine needs something *more* to stay the best: *more* pictures; *more* in-depth, behind-the-scenes articles; and *more* interesting news on upcoming products and developments in computerized fun. (For example, next month we'll start bringing you news from the arcade front.) We won't be satisfied until. . . well, I guess we'll *never* be satisfied! All we ask of you, our faithful readers, is to stick with us and tell us if you like what we offer. We've got some hot stories coming to the pages of VG&CE in the next few months that we think will catch your eye, in addition to continuing coverage of the popular game machines out today.

Thanks again for choosing VIDEOGAMES & COMPUTER ENTERTAINMENT, and most of all, have a safe, merry Christmas and happy holidays! We'll see you next year!

—Andy Eddy, Executive Editor

ADVENTURES OF DinoRiki ™
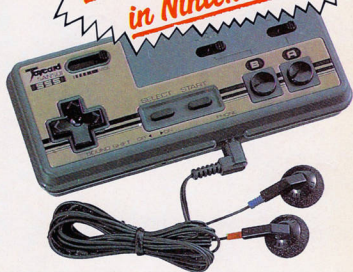
The adventures of Dino-Riki began in pre-historic times when ancient dinosaurs ruled the earth. Dino-Riki is determined to establish mankind's future in this violent age by exploring and fighting his way through deserts filled with quicksand, sinking lotus swamps, dark caverns and deep canyons. In his quest, Dino-Riki is armed with a shooting weapon that will change and progress from rocks to axes, to boomerangs and to fiery torches. There are many hidden items that will help Dino-Riki to increase his strength, extend his life, fly like an eagle and one that will change Dino-Riki to "Macho-Riki", the ancient warrior, etc... Dino-Riki will need all the ancient knowledge and items he can find before facing the dinosaur bosses: Tyrannosaurus, Pteranodon, Monster Fly and Giant Cobra.

Play with Joycard Sansui SSS™ for maximum sound effects.
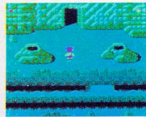
Pick A Fight

ATARI® 7800™ VIDEO GAME CARTRIDGE

XENOPHOBE

41% ALIEN INFESTED

NEW

ATARI
CX7858

RAMPAGE

ACTIVISION

ATARI® 7800™

ACTIVISION

FOR THE ATAR

After School

Double Dragon

™ VIDEO GAME CARTRIDGE ™

COMMANDO
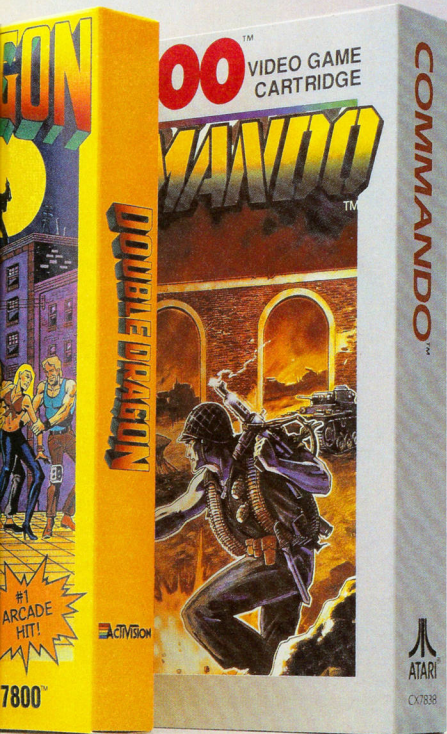
After a hard day at school, have you ever just wanted to go home and break a few heads? Destroy a couple cities? Or just blow up the universe?

Of course you have. And now you can without getting grounded. Plug in one of these smash arcade hits on the incredible Atari® 7800™

system. Each of the games are specifically enhanced with graphics and depth of game play that'll blow you away. And sound that'll make you wanna scream.

So pick up one. Or all four. And get ready for the fight of your life.

⋀ΛΤARI® 7800™

#1 ARCADE HIT!

ΛCTIVISION

7800™

ATARI

CX7838

READER MAIL
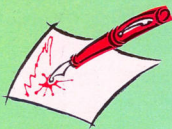
LACK OF CONTINUE-ITY

Dear VG&CE:

It would appear that video-game developers did not listen to your advice as detailed in the April issue. I am referring to the recent batch of new Nintendo-based video games that have either a limited continue or, worse, no continue feature (specifically, *Bayou Billy*, *Double Dragon* and *Teenage Mutant Ninja Turtles*).

All of these games had great promise, but nothing is more of a disappointment than to finally get to a new level only to realize you have used up your last continue and, within a few seconds, will find yourself back at the beginning. As you so clearly stated, a player may be proficient at the early levels of a game, but if they constantly have to play through them to get to the more advanced ones, it gets discouraging.

I fail to understand what is to be gained by not having the continue feature. If it is to increase the overall challenge of a game, then I would rather see the individual levels made more difficult, but coupled with a continue/password ability. This is exactly the strategy that has made games such as *Metroid* and *Castlevania* such classics.

Players should speak up on this important issue, otherwise developers may keep on creating the kind of games that only foster frustration and, ultimately, stagnation.

—Michael J. Bresso
Trumbull, Connecticut

Thanks for sharing your ideas with us, Michael. We're beginning to hear this complaint from quite a number of readers, all of whom seem to share your concerns that games without this feature will lead to quick burnout.

Write to your favorite game manufacturers about your concerns, too. They spend considerable amounts of time and money developing these games, and any recommendations you, the one who buys their products, have will be appreciated.

ONE SIZE FITS ALL DEPARTMENT

Dear VG&CE:

I really love your magazine, but I'm somewhat confused. The Power Glove featured on the cover of your September issue looks different than the one on page 33 of that issue and even more different than the one in the March/April issue of *Nintendo Power*. Are they different types of the same product? Are they available in different sizes or in a left-handed or right-handed version? Please answer.

—Nick Tuttle
Superior, Nebraska

We've got to hand it to you, Nick, you sure have sharp eyes! The Power Glove that was first shown in Nintendo Power is different from the version shown in our publication. In fact, the version that we showed isn't the final one either. The Power Glove has undergone a number of changes during its R&D (Research and Development) phase, including a few cosmetic ones. Hence the obvious differences between models.

Latest word on specifications is that the glove will be available in two sizes only, and Mattel will only be making it in a right-handed version. They figured that since a small fraction of the population (about 10%) is left-handed, it wouldn't be worth the expense to create a left-handed model.

SWEET "16"

Dear VG&CE:

I'm really looking forward to the Sega Genesis and the TurboGrafx-16 systems. They look like real breakthroughs. Up until now the

READER MAIL

home game systems have been too limited. It will be great to have home systems with true arcade graphics and sound.

In this country we're overwhelmed by the mundane to the point of lunacy, and some of us need these high-tech toys to escape all the nonsense of daily life. The Sega Genesis and TurboGrafx-16 should be really spectacular. They'll definitely live up to their promise.

**—S.A.E.
Dallas, Texas**

Dear VG&CE:

I just finished reading your August issue and just wanted to say it's your greatest issue yet! The Sega Genesis article was especially interesting and very informative. In my opinion, VG&CE is the best video-game publication on the market. After reading your *Editor's Letter*, I came up with a suggestion for you.

How about an article comparing the Genesis with the TurboGrafx-16? I think it would be interesting to hear what system the VG&CE experts think is the best system for the dollar. Thanks!

**—Jayson Ditmore
Wayne, Michigan**

Dear VG&CE:

I have been an avid fan of your magazine since its premiere issue. You cover every item fairly and in a mature fashion that most other magazines lack. It's wonderful to have monthly insights into video gaming as well. Also, I was wondering if VG&CE was planning on reporting about Nintendo's 16-bit machine, the Super Famicom?

**—Travis Kowalski
Corona, California**

P.S.—Cheers and thanks to Arnie Katz for his June article on the possibility of another game crash. It sure relieved a lot of my gaming anxieties.

Dear VG&CE:

Congrats on having the best video-gaming magazine around! Your reviews of the PC Engine prompted me to send away to Japan and buy one for myself. Your coverage of the Sega Master System has been equally outstanding.

Keep up the good work!

**—Ed Malin
Park Ridge, New Jersey**

Dear VG&CE:

Good job on your feature articles concerning the Sega Genesis and NEC's TurboGrafx-16 machines. Both were excellent articles, cutting through all of the rumors that are floating around.

Despite all this, I still remain unclear on one basic point: Which machine should I purchase? While I am leaning toward the TurboGrafx-16, I am concerned about a few things. Can the NEC provide the same kind of graphics that the Sega seems to offer?

**—Jamie Jelleison
Westland, Michigan**

We receive literally hundreds of calls and letters on this theme. As an objective magazine, it's not possible to take sides without losing impartiality. We simply cannot pick a "better" machine. Each has individual high points: The Genesis has a slight advantage in sound quality, while the TG-16 has a better and larger library of programs (at present). It's your choice and your choice alone. We're glad that you consider us the experts, and we're flattered that you seek our advice, but we're going to sit this one out.

THE RATINGS GAME

Dear VG&CE:

I have been buying your magazine along with three other electronic video-game magazines, and you guys were the first to give an in-depth look at the NEC PC-Engine/TurboGrafx-16 and the first to report on Color Dreams, an independent NES games manufacturer (VG&CE, July). I have a few suggestions to make about your magazine, which I hope you will strongly consider.

First, review more arcade games since most of these will cross over into the home video-game market anyway.

Second, devote more space to the new Atari Lynx machine and the Nintendo Game Boy. (An in-depth look, plus comparisons, would be most appreciated.)

Lastly, rate Nintendo, Sega, NEC and all computer games based on a

graphics/sound/playability basis. Many thanks!

—**Wilson Young**
Phoenixville, PA

Dear VG&CE:

In regards to your August issue of VG&CE, I, for one, would like to say that I enjoyed reading your magazine. In particular, I enjoyed reading the articles on the Sega Genesis and Nintendo Game Boy machines. (As soon as the Game Boy is available, I intend to purchase it for my two sons, Mike and Mark.)

I also enjoy reading the video-game reviews but feel you should have a ratings system for each game reviewed. A rating of 1-5 for such things as music, game play, graphics, etc. would be helpful (very valuable information before you spend $40 to $50 per game).

Thank you!

—**Michael Puzdrak**
Maywood, California

Dear VG&CE:

In response to your call for comments, I offer the following. What I like most about VG&CE are the feature-length articles. Reading your magazine keeps me absorbed far longer than the half-hour it takes me to chomp through your competition (who are just like Rice Krispies—lots of *snap, crackle* and *pop*, but no substance).

What I like least about VG&CE is the game reviews, which tend to be rather rote reviews of scenarios without critical value. With limited bucks to spend on video games, I look for reviews that attempt to judge the merits of a game from the standpoint of challenge and graphics/sound ability.

How about taking the kid gloves off for a change?

—**Wayne Limberger**
Chesterfield, New Hampshire

As someone once said: "Ask and ye shall receive." Starting with the January issue, VG&CE will be instituting a ratings system based on those very important aforementioned factors. Rest assured that we will jump into the fray and will either praise or pummel all comers critically, no kid gloves allowed.

OLDER READERS WRITE

Dear VG&CE:

Hi, video gamers! First I wanted to give my thanks for such a fine and satisfying magazine—a real breath of fresh air from the prepuberty *Nintendo Power* publication I search the mailbox for every few months. (Don't get me wrong—it too is a great and informative magazine on what I really enjoy doing in my free time, which is playing video games.) I also realize that it has a certain reputation to maintain, but let's face it:

● There are a lot of older (18- to 40-year-old) players out there.

● All of my close friends that are avid gamers are my age (33).

My point is, older humans enjoy video gaming just as much as the kids. It's just too bad that video games are synonymous with children's toys.

These high-tech games bring out the challenge-seeking and competitive side in us all. Who would have ever dreamed fifteen years ago that we'd all be sitting around the ol' family TV set with a set of small hand controllers, trying to best each others' *little people?* It's great and I truly appreciate the fact that we live in an age of such sophisticated electronic entertainment, possible in the comfort of our own homes.

Keep up the good work, and I look forward to your quality magazine monthly.

—**Jon Williams**
San Clemente, California

Dear VG&CE:

I'm a 38-year-old gamer who still has all the old issues of *Electronic Games* magazine.

I also own an Atari 2600, 7800 and a 400 computer, as well as a Sega Master System and a Nintendo Entertainment System. Remembering "The Crash of 1984," it seems that the staff turned (and rightly so) to video games when the computer market was down. As superior as computers can be for

all-around uses, it seems that it's the video game that's "happening."

Keep plugging!

—Jan Smail
Covington , Indiana

Thanks for your compliments and comments. It truly has been an amazing decade for the video game, especially considering its humble beginnings. Here at VG&CE we intend to stay with what's hot and bring you the best of both worlds. All of us here in our editorial offices would be considered "Older Humans" as well, and our love for gaming speaks for itself. The fun and challenge of video gaming will be with us for a long time to come as a whole new generation of gamers take their places around the ol' TV set.

FILIPINO FAN MAIL

Dear VG&CE:

I just bought your most recent issue, and I'm very pleased to see that you are always up to date with what's going on in the computer world.

Believe it or not, even here in the Phillipines we go nuts for any good news we hear about video-games, especially new releases for the NES. I always look forward to your next issues, even though they may be hard to find (and very expensive!).

But because I enjoy all the hints and the clues that you show, it doesn't matter if I have to pay a bit more for a fantastic video-game magazine.

Keep up the good work!

—Jefferey Foo
Olongapo City, Phillipines

Kind words are always appreciated by editors, Jeff, especially if they're from half a world away. Thanks for taking time out to drop us a line. We're pleased that you like the magazine so much. If there are any more of our foreign friends who haven't written, don't be shy—get those pens moving!

THE RATINGS GAME—PART TWO

Dear VG&CE:

I just wanted to express my concern about Mr. Semrad's rating of your magazine (*Editor's Letter*, VG&CE, August). He was very unfair and should be given a free subscription so he can follow how creative and wonderful your magazine really is. I have read a lot of video-game magazines, and I don't see how the others compare in detail to your mag.

Gamers want and need mapping. Without mapping you cannot plan your strategy. The mapping alone does not win the game for you—it's how you and your controller react during the game that makes the difference. As in many other things practice is the only path to winning.

Mr. Semrad should review and rate his own column when it comes to rating video magazines. My sincere thanks to your staff for a creative and informative magazine. You're a hit—don't quit!

—Anthony Castiello
Everett, Massachusetts

Dear VG&CE:

I can't believe your magazine was rated last! Personally, I feel that your magazine is the best in every category. Your opinions on games have helped me decide which to get and discover why that certain game is just right.

I own a Sega Master System and I'm thrilled to see the half and half coverage between Sega and Nintendo. Your article on the Genesis machine made me decide to buy one when it becomes available.

Please keep up the good work and may *our* magazine "live long and prosper."

—Cody Jepson
Denver, Colorado

These are just a couple of the many letters we received from our readers concerning the issue in question. We're touched by the way you, our readers, have sprung so quickly to our defense. As far as we're concerned, it's our readers that make us the best, and we realize that more every day. Thanks!

CORRECTION

In the *News Bits* section of the October VG&CE, we made an error in the bit entitled "Mat Game Champs See Real Matches." Instead of showing the grand-prize winners of the contest listed in the article, we accidentally put a picture of Acclaim's *Wrestlemania* next to the story.

Our apologies to FCI, the makers of *World Championship Wrestling* and the sponsors of the contest, as well as the winners, Sean True and Eric Sandberg.

NEWS BITS

Compiled by Joyce Worley

Capcom Giveaways Brighten Kidcare Hospitals

The holiday season is a lot brighter for some sick California kids, thanks to Capcom U.S.A., Inc. The company is creating a Capcom Children's Corner at ten California hospitals and pediatric wings, with a $50,000 giveaway of video games and Nintendo Entertainment Systems during the next year. The first Children's Corner opened August 12 at Children's Hospital of San Francisco and will be followed by nine additional installations at other metropolitan California hospitals during the next year.

Joe Morici, vice-president of sales and marketing for Capcom, explained why his company decided to make the donations. "When children are in the hospital, they are naturally frightened. They've lost control of their lives, and it's a traumatic experience. Video games enable them to have a semblance of control. It takes their mind[s] off the situation and offers some healing diversion. For some hospitalized children who are immobile, video games are one of the few diversions available."

Each hospital will receive a donation valued at $5000. It consists of three Nintendo Entertainment Systems, three TV monitors and Nintendo "hands free," mouth-operated controllers. A portable oak cart will be given for display and storage of each system. The complete library of 36 Capcom video games will go to each hospital and Morici also promised a continuing donation of new Capcom games as they are introduced. "That means 13 to 14 new games a year," Morici estimated.

Also present at the initial introduction in San Francisco was longtime video-game enthusiast, Paul Kantner of the Jefferson Airplane.

NES Goes to War

Koei Corp. made an ambitious entry into video gaming, and NESers got their chance at a new kind of strategic game action with the introduction of *Nobunaga's Ambition*. Previously available for play on computers, the Japanese feudal warfare game became the first entry by Koei into the NES arena and the industry's first NES cartridge aimed squarely at the adult market.

Until this year, games for the Nintendo Entertainment System always featured high-action hand-eye coordination games for younger players. Play style often reflected *Mario* inspiration. Heavy-think games, deemed more appropriate for older users, were considered inappropriate for NESers, where the average gamer is much younger than the average computerist. The Koei introduction is viewed as an attempt to attract more sophisticated gamers to the NES.

The two-megabit ROM card of *Nobunaga's Ambition* is a historically accurate re-creation of Japan's civil-war period from 1467 to 1568 A.D., when warlords fought among themselves to become the new Shogun. One to eight players assume fiefdoms, then vie for power on a topographical map. The 30-plus pages of instructions in the manual include the history of the era.

Winners Named by Computer Learning Foundation

Thirty-two contestants won new computer systems, following a series of contests and sweepstakes sponsored by the Computer Learning Foundation (CLF), a non-profit organization dedicated to advancing computer literacy. The winners received computer systems donated by CLF sponsors, including Apple, IBM, Commodore and Tandy/Radio Shack.

The competitions, which began in October 1988, were developed in conjunction with Computer Learning Month and recognized winners who helped further the cause of computer education. More than 100,000 people from the U.S. and Canada participated in a variety of contests and sweepstakes for individuals, educators and groups.

The contests challenged users to create new works of art, develop new lesson plans using computers or host local computer events. Complete systems were awarded each winner in the following categories:

Individuals: Best Special Student Success Story; Art & Computers; Newsletter/Storybook; and Telecommunications Dream Project.

Educators: Higher Education Faculty Papers; Learning Together; Early Childhood Education; Special Education; and Telecommunication Lesson Plans.

Groups: Computer Learning Month Event Sponsorship; Group to Group Share Your Computing Knowledge; and Dealer Event Contest.

Sweepstakes: Certified School Sweepstakes; Share the Magic of Computing Sweepstakes.

Winners for the individual contests were selected at primary, middle and secondary grade levels. In addition to the grand prizes, the Foundation awarded over 240 software packages as second prizes and over 300 Certificates of Merit to third-prize winners.

For information about participating in the 1989 contests, write: Computer Learning Foundation, P. O. Box 60007, Palo Alto, CA 94306-0007.

Quantum Opens Unique "Club"

Quantum Computer Service, a provider of online services for telecommunicators, introduced an "online island resort" for Q-Linkers. (Q-Link is the Quantum service specifically for Commodore owners.) *Club Caribe,* a super-animated vacation playland developed jointly by Lucasfilm Games and Quantum, lets Linkers move animated characters around the resort, talk with other guests, play games, shop, explore or just hang out.

A technological ground-breaker, *Club Caribe* is a new kind of involvement in telecommunications. Each user creates an on-screen character from a bank of heads, clothing and physical attributes, then moves around the terrain via joystick. The computerist can make the character perform a variety of functions, such as smile, shake hands, wave or frown.

Conversation with other vacationers appears in word balloons in comic-strip style. Activities at the make-believe resort include trivia competitions, weddings, arcade games, comedy and talent shows and sunbathing.

Lucasfilm developed the required technology during their work on *Habitat,* an online fantasy world simulation beta-tested by Quantum during 1987 and 1988. That product is not commercially available, but the real-time live-action-graphic technology was adapted by Lucasfilm and Quantum for use in *Club Caribe.*

Top Coin-Ops of August 1989

Figures courtesy of *Replay* magazine, based on an earnings-opinion poll of operators.

Best Upright Videos
1. *Off Road* by Leland
2. *WWF Superstars* by Amer. Tech.
3. *Hard Drivin'* by Atari
4. *Operation Thunderbolt* by Taito
5. *Turbo Outrun* by Sega
6. *Strider* by Capcom
7. *Mechanized Attack* by SNK
8. *Arch Rivals* by Bally Midway
9. *Narc* by Williams
10. *Final Lap* by Atari

Best Coin-Op Software
1. *Golden Axe* by Sega
2. *Bottom of the Ninth* by Konami
3. *Ninja Gaiden* by Tecmo
4. *Cabal* by Fabtek
5. *U.S. Classic* by Taito
6. *Wrestle War* by Sega
7. *Nastar Warrior* by Taito
8. *Cobra Command* by Data East
9. *Capcom Bowling* by Capcom
10. *Roadblasters* by Atari

Best New Uprights
1. *Escape from the Planet of the Robot Monsters* by Atari
2. *Crackdown* by Sega
3. *Crime Fighters* by Konami
4. *Final Blow* by Romstar
5. *Dynasty Wars* by Capcom

HERE'S HOW to WIN

To qualify for prizes, print the names of five Taito games here:

1) _____
2) _____
3) _____
4) _____
5) _____

Mail your entry to: "Say Taito, Say Taito, Say Yo!" Sweepstakes, P.O. Box 7789, Woodside, NY 11377.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Apparel Sizes: T-Shirt _____ Shorts _____ Shoes _____

Age: _____

OFFICIAL SWEEPSTAKES RULES

No Purchase Necessary

1. To enter, correctly hand-print the names of any five Taito games and your name, address and zip code on an official entry form or 3" x 5" card. Mail completed "Say Taito, Say Yo!, Say Yo!" Sweepstakes, P.O. Box 7789, Woodside, NY 11377. Entries must be received by February 1, 1989. Play one entry per envelope. No mechanical reproduction permitted. Sponsor not responsible for lost, late or illegible mail. Limit one per family.

2. Winners will be selected in a random drawing by the independent judging organization, Inc.'s, whose decisions on all matters relating to this Sweepstakes are final. Contest Kit Card will be printed by each Taito participating sweepstakes, winner wager will lose in the past thirty days. Odds of winning depend on the total number of entries received. Winners are not eligible for a number of prizes. Although only one entry, each Taito family may be released may be required for prior year winners. Please submit those require disqualification. Travel competition of future players, winners must sign a release. Void where prohibited or restricted by law.

3. One Grand Prize: A five day trip for two to New York City tour package, fly-out trip, air fare from the nearest major airport of the winner's choice. Winners and accommodations, including MTV studios and $1,000 spending money. Winner's voucher must be accompanied by parent/guardian. Unless to be determined by sponsor. (Approximate Retail Value: $5,500.) 100 First Prizes: Reebok Hi-Tops. (ARV: $65.00.) 250 Second Prizes: Sideout Sportswear T-Shirt and Pants. (ARV: $45.00.) 1,000 Third Prizes: Ray-Ban Drifter sunglasses. (ARV: $60.00.) No prize transfer or substitution except by sponsor in case of unavailability of any prize, in which case a replacement will be of equal or greater value.

4. Open to residents of the United States, except employees and their families of Taito Software, Inc. and their promotion agencies.

5. For a list of major winners, send a self-addressed, stamped envelope to: "Say Taito, Say Taito, Say Yo!" Winners, P.O. Box 7789, Woodside, NY 11377.

© 1988, Taito America Corporation. All rights reserved. Taito and its Logo, "Say Taito", Bubble Bobble™, Operation Wolf™, Renegade™, Arkanoid™, Arkanoid™ "Revenge of Doh™, Qix™ and Arkanoid™ The Revenge of Doh™ are trademarks and divisions of Taito America Corporation. Taito®, Say Taito, Say Taito, Say Yo!™, Sayin' Taito, SAY THE ONLY GAME IN TOWN™ are trademarks of Taito America Corporation. All other trademarks are the property of their respective owners. Ray-Ban® is a registered trademark of Bausch & Lomb. Reebok® is a registered trademark of Reebok International Ltd. MTV® and SAY are registered trademarks of SDF-DED Sportswear. MTV® is a registered trademark of MTV Networks. A Registered Reebok® is a registered trademark of Reebok Int'l. Ltd. MTV, MTV Networks and related trademarks are trademarks of MTV Networks, a division of Viacom International Inc. All logos and images are for identification purposes only and all claims and rights of their respective owners.

WIN!

One of these exciting prizes just by naming 5 Taito™ games

Grand Prize
5 Days/4 Nights in New York
A Visit to MTV Studios to See
"Yo! MTV Raps"
$1,000 Spending Money

100 First Prizes
Reebok Hi-Tops

250 Second Prizes
Sideout Sportswear T-Shirt
and Pants

1,000 Third Prizes
Ray-Ban Drifters

TAITO
THE ONLY GAME IN TOWN ™

CIRCLE #111 ON READER SERVICE CARD

Fuji Special Features Free Software

Fuji's Bonus Pack contains a special collection of products for home computerists. Jeff Ash, product marketing manager for Fuji's computer media division, described the package: "For the price of 20 floppy disks, Fuji's new Bonus Pack offers home computer users a perfect introduction to a variety of useful organizational supplies and accessories."

The promotional offering includes 20

3.5-inch pastel-colored disks in shades of blue, green, pink, yellow and white. Packed with the disks is a copy of Spinnaker Software's *Desk Organizer*, a seven-in-one program for IBM PC computers that includes a calendar, memo pad, to-do list, label maker, world clock, address book and utilities. Also included are four high anti-static, pre-moistened towels for cleaning computer screens and other office equipment.

The Fuji Bonus Pack will be available until December 31, or while supplies last, for $59.80.

Gamers See "The Great American Bash"

Sean True and Walter Kaufman received an all-expenses-paid trip to see "The Great American Bash" in Baltimore, Maryland. There the duo witnessed Sting, The Road Warriors, Ric Flair and other NWA wrestlers in action.

Sean True won the trip for himself and a guest by completing the highest number of rounds playing FCI's *World Championship Wrestling*. True, who is employed by Video Game King, participated in the competition sponsored by Fujisankei Communications International during his visit to the Summer Consumer Electronic Show in Chicago.

Computer Game Sales Slip

Retail sales of home-computer entertainment software were $47.7 million during second quarter 1989, according to figures developed by the Software Publisher's Association (SPA). The trade group's membership survey reveals that computer-game sales dropped 10.2% compared to the same three-month period in 1988.

Entertainment titles accounted for 7.3% of total software sales, which rose 8.8% to $657.8 million. This funware cut a slightly smaller than usual slice of the software pie during April-June. (Note: Games represent such a small percentage because they have a much lower average retail price than other categories of software.)

According to the SPA analysis, total international software sales now account for over 30% of the software revenues of North American firms. SPA research director Ann Stephens says that: "...overseas growth is remarkably strong. The European sales

market is now booming like the American market did a year ago."

Computer-entertainment publishers took a beating as a result of problems the field experienced during the first quarter 1989 and, to a slightly lesser extent, the fourth quarter of 1988. Overly optimistic manufacturers swamped distributors, wholesalers and retailers with product.

When the demand rose moderately instead of soaring the 60% some anticipated, it clogged the distribution channel. This strongly affected the SPA figures, which represent sales to retailers, not the public. Retailers were working off excess inventory during the second quarter, not placing new orders.

A VG&CE telephone survey indicates that things are already getting back on track during the third quarter. Leading publishers told editors of this magazine that computer games are once again selling normally. VG&CE will report the SPA official third-quarter results when they become available.

Developers Look at Lynx

Atari and Epyx were the sponsors of an end-of-summer conference held in Monterey, California, in August. The three-day bash drew over 100 game-software developers and third-party marketers and gave all the attendees a closer look at the Atari Lynx (VG&CE, October 1989). A number of developers then stayed on an extra day to discuss the Atari 7800 video-game system.

Atari used the opportunity to explain the technological capabilities of the Lynx and the company's marketing plans for the portable game system. Speaking for Atari, Ron Stringari explained that the hardware contains col-

lision detection, scaling and other built-in features that previously had to be written into software. According to Mr. Stringari, the Lynx's 3.5-inch screen, which displays 16 colors from a pallet of 4,096, lets programmers work with an infinite number of sprites. He also sounded a call for new games to take advantage of the Lynx's ability to connect individual units for multi-player sessions.

According to Mr. Stringari, there should be 20 new Lynx game titles on the market by the new year, in addition to the seven currently available. Atari will announce a number of new development agreements during the next month, as software creators sign up to design games for the Lynx and the 7800.

W I Z A R D R Y · V
HEART OF THE MAELSTROM

LOSE YOURSELF IN A NEW GENERATION OF WIZARDRY!

The Legacy Continues ...

Despite the greatest magic of the ancient High Sages, great floods, earthquakes and famine again pervade the land of Llylgamyn. The great Orb of L'Kbreth, an artifact of remarkable power that has protected the city for generations, is powerless to halt the scourge.

But now, the Sages have discovered that the hidden reason is deeper and more frightening than the worst of these disasters. To save the very world as we know it, you, and your intrepid party must rush headlong into the ...

Heart of the Maelstrom

Heart of the Maelstrom is a complete revision of the Wizardry Gaming System, with more story and game depth than ever before. You may create your own party of adventurers, or use characters from other Wizardry scenarios. In this new world of Wizardry, you will find:

New Mazes

More than twice the size of previous scenarios, with larger monster pictures, magical pools, buried treasure, locked doors and much, much more.

New Abilities

Thief and Ninja characters that can hide, then ambush unsuspecting monsters. Spellcasters can conjure monsters to fight for your party.

New Spells

Over 40 brand new spells, 60 in all. A unique and totally new magic system.

New Combat System

Diabolical monsters with more deadly abilities than ever before, and an arsenal of ranged weapons and new combat situations will test your strategic powers as well as your strength.

New Monster Encounters

Converse, buy, sell, trade, steal, or stand and fight in a dungeon filled with real characters.

For the most exciting experience available in fantasy role-playing, enter Heart of the Maelstrom!

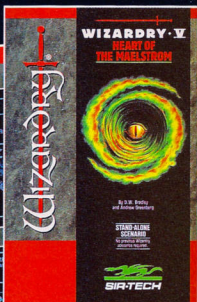*Screens from Apple II version of the game. Screens for other systems may vary.*

STAND-ALONE SCENARIO

Now available for:
- Apple II Series (5¼ inch only)
- MS-DOS machines (3½ inch and 5¼ inch)

Wizardry
PLAY IT TO THE HILT!

SIR-TECH

SCORE: 75

HEALTH 312   SCORE 7400
HEALTH 1000   SCORE 575

New Products for Atarians

Atari announced a new wave of game products scheduled to reach retailers' shelves this winter, for play on the Atari 2600 and 7800 video-game systems. Each of the titles will optimize the technology of the machine for which it was designed, according to Atari president Ron Stringari.

The 7800 version of coin-op hit *Xenophobe* sets the gamer on a mission to regain control of Earth's space stations, which have been taken over by hostile aliens. Played cooperatively or competitively by one or two gamers;

it re-creates the levels of the arcade version.

Jinks, for the 7800, gives the video gamer command of an exploration team on a resource rich but seemingly uninhabited planet. A single player paddles a magic ball through death traps for the 7800 game system.

Atari 2600 owners control a supersonic F-22 assigned to protect an aircraft carrier in *Radar Lock*, an aerial combat game. If gamers manage to zero in on enemy stealth fighters, bombers and interceptors, they can clear the sky, then move on to more challenging missions.

Convention Honors *F-19 Stealth Fighter*

MicroProse Software's popular *F-19 Stealth Fighter* was named Best Military/Strategy Game of 1988 at the 1989 Origins Convention held in Los Angeles. The game also won kudos for Best Screen Graphics of 1988.

Bill Stealey, MicroProse president and co-founder, commented on the awards: "I'm particularly thrilled that *F-19 Stealth Fighter* won both awards at the Origins Convention because the people who vote on these awards are avid gamers with high standards. Earning their appreciation means a lot to me."

The best-selling flight simulator features America's top-secret jet, a variety of weapons and tactical options, and missions in four regions of the world, in 3-D graphics with eleven different viewing angles.

Also at the Origins Convention, *Fire-Brigade*, the first computer game marketed by Australia's Panther Games, won the Charles S. Roberts Award for the Best 20th Century Computer War Game.

The president of Panther Games, Dave O'Connor, explained the reasons he believes *Fire-Brigade* was honored: "Its network capability [i.e., the ability to play another human via modem or cable] has attracted a lot of interest from people tired of simply playing a machine."

Mr. O'Connor also referred to the U.S. Army's interest in the game. "*Fire-Brigade* has also attracted a great deal of attention from the military. The U.S. Army Training and Doctrine Command are currently evaluating a proposal for Panther Games to develop a second-generation ground-warfare simulator based on the *Fire-Brigade* interface.... We have developed a new command system with significantly improved artificial intelligence. We hope to incorporate these into a simulation package that will allow the user to generate and/or modify scenarios and to change the major variables and probabilities.... [This] will provide the military with a very powerful training and analysis tool."

Fire-Brigade is distributed in the U.S. by Computer Software Service, Addison, Illinois; (312) 620-4444.

Jaleco Picks Sweepstakes Winner

Larry Dean of Hersey, Michigan, was the big winner in Jaleco's "We'll Make You A Pro Sweepstakes." Dean won the grand prize, a Wilson tennis package featuring two Pro Staff rackets, two pairs of Wilson tennis shoes, two sets of Wilson visors and tennis wear, Wilson tennis balls and other gear, plus a dozen lessons with a Wilson teaching pro.

Jaleco launched the sweepstakes in November 1988 to promote their NES tennis simulation, *Racket Attack*. Purchasers were invited to register for the prize drawing by completing the entry blank packed with the game.

Jaleco gave away over $50,000 in Wilson tennis prizes in the sweepstakes. In addition to the grand prize, 25 first-place winners received Wilson Pro Staff rackets, 50 second-place winners won Wilson Pro bags and 50 third-place winners won Wilson Pro Staff T-shirts. Everyone who entered the sweepstakes got a Wilson tennis headband.

Mindscape Dumps Disk-Based Protection

New and upcoming titles from Mindscape will be released with no disk-based copy protection, according to Roger Buoy, president and CEO of that company. Some new titles, such as the Macintosh version of *Gauntlet*, will be unprotected, while other new titles will use manual-based or codebook protection. The last group includes new releases, such as *Star Trek V: The Final Frontier*, *Fiendish Freddy's Big Top O'Fun*, *Gauntlet II*, *Hostage* and *Balance of Power: The 1990 Edition*.

"We've found on-disk copy protection to be a real sore spot with consumers, and it's time to remedy that," explained Mr. Buoy. "Using manual-based protection—or no protection—allows game players to do some really basic things, such as make backup copies or easily copy the program onto a hard disk." In general, manual-based protection requires the user to input a word or phrase from the documentation in order to boot the product.

Many computerists believe that disk-based copy protection is harmful to equipment. According to Mindscape spokespersons, the decision to eliminate it has been met with extremely favorable response.

The response to Pipe Dream™ has been admirably restrained.

Fortunately, it's not necessary to physically restrain *everyone* who contracts *Pipe Dream* fever. But frankly, we're surprised that the Surgeon General hasn't ordered us to put a warning on the box.

Pipe Dream is Lucasfilm's fast-flowing new computer game of skill, strategy, and plumbing. And while the devilishly simple concept makes *Pipe Dream* easy to learn, it's maddeningly tough to master.

Imagine playing chess in the middle of a pie fight.

Pipe Dream's objective is simple enough: Just piece together a pipeline from plumbing parts

The better you get, the trickier it gets. But one false move, and you're swamped!
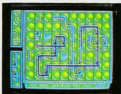
Two plumbers can play this game.

that appear on the side of the screen. But after eight seconds, the flood gates open. The plot thickens. And quickens.

Suddenly, you're scrambling to lay pipe ahead of the flow. You've got to think strategically. But act instinctively. One wrong move, brief hesitation, or misplaced pipe part and you're sunk in a sea of soggy sewage!

Learn why plumbers earn $75 an hour.

Of course the better you get, the faster the flow. And the 36 levels get progressively trickier, with special bonus tubes worth extra points. Reservoir sec-

tions that slow the flow of sludge. Unexpected obstacles appear. So do mandatory finishing points. And other trials to drive the deftest pipe-layer daffy.

Choose a *Pipe Dream* play mode to suit your skill: basic, expert, or two-plumber challenge. And when no one's looking, use the training mode to glimpse advanced level screens that you might otherwise never see.

Test your plumbing skills before you buy.

For a sample version of *Pipe Dream* look on specially marked boxes of Kao diskettes, or send $2.00 for postage and handling to: Pipe Dream Offer, Kao Infosystems Company, 41444 Christy St., Fremont, CA 94538. State diskette size (3½" or 5¼") and system type (PC or Macintosh only).

Once you've contracted *Pipe Dream* fever, move up to the full-blown version and really test your pipe-fitting prowess. If you're lucky, the only thing they'll have to restrain will be your enthusiasm.

LUCASFILM™ GAMES

Video-Game Design:

From the Inside Out

by Maurice Molyneaux
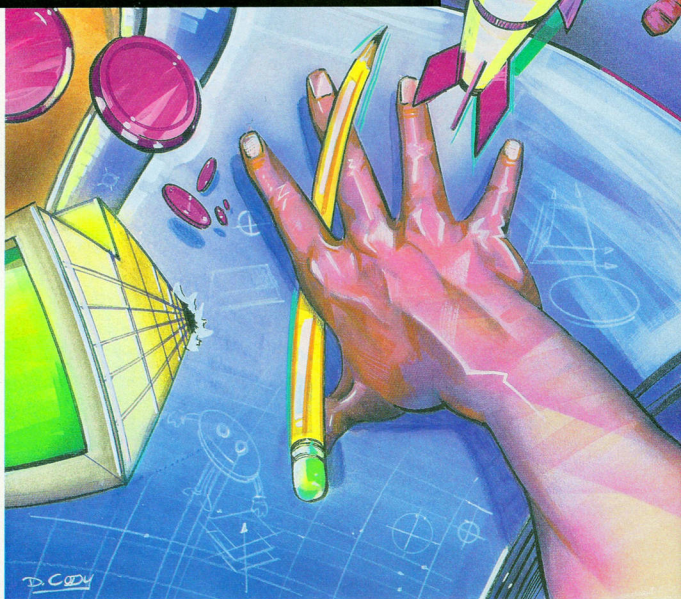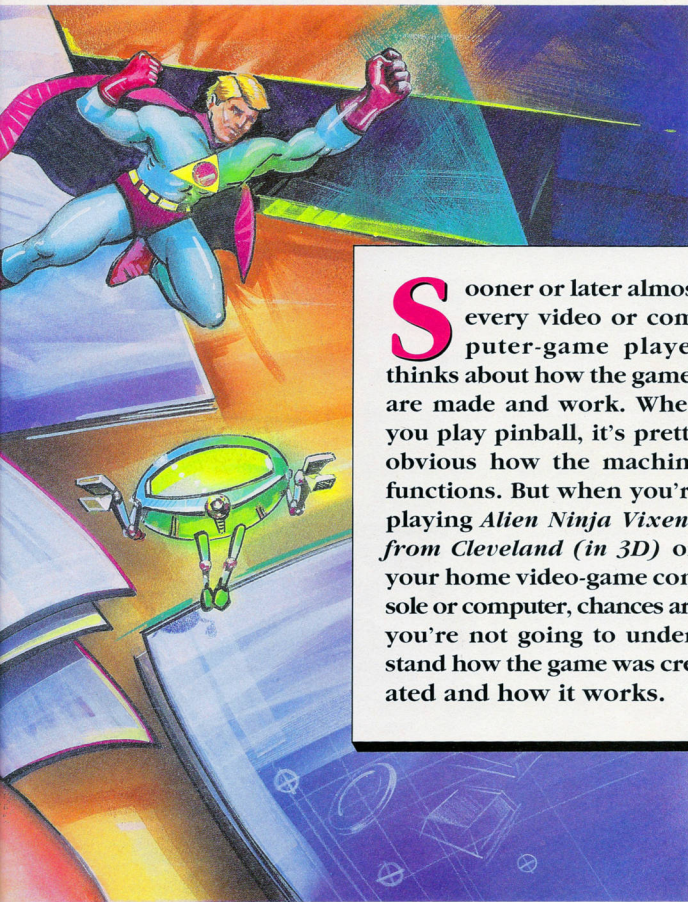
Sooner or later almost every video or computer-game player thinks about how the games are made and work. When you play pinball, it's pretty obvious how the machine functions. But when you're playing *Alien Ninja Vixens from Cleveland (in 3D)* on your home video-game console or computer, chances are you're not going to understand how the game was created and how it works.

Despite the smoke screens of technical jargon thrown around by programmers and developers who want to seem powerful and imposing, the process of designing a video or computer game is not really all that mysterious. No arcane magic here. . .just hard work. In this article I'll take you through the process of the design of a game, from start to finish. Don't worry, though, I won't get too carried away with technical jargon. After all, this is only the 25-cent tour.

Conceptualization

Although it doesn't always start off here, most games begin with a simple concept. It's simple if the game is being adapted from another source (like a coin-op game), but starting from scratch requires a description. Most game concepts can be summed up in one line, like "Player races a Ferari down branching highways, attempting to complete each leg of the race within a specified time limit."

But who does this initial conceptualizing? Well, unlike a lot of other industries, in the electronic-gaming field there are rarely hard-and-fast rules. The idea for the game could come from a freelance developer/programmer, a marketing person or an executive at a software publishing house, etc. The developer might come up with what he or she thinks is a great idea for a game. Marketing people might conceive a game that they think would capitalize on some craze or appeal to a specific audience. Regardless of who comes up with the idea and why, chances are it won't generate too much interest from anyone without some further work — which leads to the next step.

Fleshing It Out

Okay, let's say our concept is of a game featuring alien ninja vixens from Cleveland who are fighting their way through hordes of wolves in their quest to escape a nightclub where they have been enslaved as show girls (okay, it's silly, but it's just an example). We know what the general idea is, but we need specifics now. What are the scenarios? First, what does the concept suggest? Well, these vixens are aliens, which means they should not be on Earth. They are ninjas, which means they'll use swords and wear black. Vixens implies they are good-looking. Thus, we can say that they are attempting to escape from an interstellar nightclub populated by wolves (as in the old term "He's a wolf," meaning a charming guy, or at least someone who thinks he is). So, that fills out the general idea a bit, but what are the objectives and dangers? Such fleshing out might be as simple as the following:

● Vixens use ninja weapons and bare hands to fight their way out of the nightclub.

● Multi-screen action has different rooms in the nightclub presenting different dangers.

● Objective is to reach the parking lot and steal a "space limo" belonging to the club's owner.

The fleshing out process might also get as detailed and complex as this:

● Players: 1 or 2 players, each controlling one vixen.

● Weapons: Vixens fight wolves and other opponents with their bare hands but can also use swords, bottles and chairs (the latter can only be used once each, since they shatter when used on an enemy).

● Dangers: Wolves try to smooch vixens. If a vixen gets kissed too many times, she collapses from the effects of lycanthropian halitosis (wolf bad breath) and thus loses one of her three lives.

● Bonuses: Extra life after kicking wolves ten times. Maximum of five lives possible.

● Game screens:
Screen 1, dressing room — vixens must overpower agent and guards.

Screen 2, dinner—on the show-floor, vixens fight their way across the room, dealing with many wolves.

Screen 3, bar — more wolves. Agent and goons show up if too much time is spent getting through this screen.

Screen 4, lobby — fight off valet-parking wolves, bouncers and entering clients.

Screen 5, parking lot — vixens try to beat up bodyguards of rich wolf so they can steal his limousine and escape. Stealing limo earns big bonus.

Whose View?

Another important step is determining how the game will be viewed. We basically have two choices here: first person and third person. In first-person games the player "sees" what a particular character in the game would see but does not see the person or vehicle he/she is controlling. A good example of a first-person game is Lucasfilm's *Ballblazer*, which splits the screen in two, with each half showing the view from one player's vehicle.

The second and more common approach is to use a third-person perspective, one where we see our on-screen persona from an "omniscient" point of view (POV). For instance, in *Super Mario Bros.* you see Mario and his surroundings, not just what Mario would see.

For most games, third person is preferable. This is because it better allows players to see what they're doing, where they're going and what dangers surround them. Also, it is generally more memory efficient and easier to program. In a first-person perspective game, objects need to appear in different sizes in order to clue the viewer in on how far away that object is. The closer it gets, the bigger it gets. That means more drawings and more data for the graphics, leaving less memory for other things. (Admittedly, a number of third-person games work in pseudo-3D, like *Space Harrier*, and thus work somewhat similarly to the first-person games.)

Even having chosen third person, there are other things to decide. Is the POV of the game from overhead (*Gauntlet*, for instance), from the side (as in *Zelda II* or *Altered Beast*) or from a three-quarters view — halfway between overhead and a side view (like many sports games)? Can the players' characters
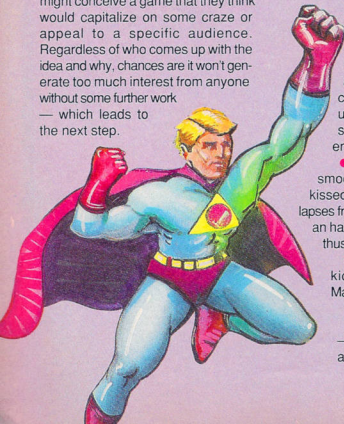
move anywhere on the screen or are they restricted to certain areas?

Mocking It Up

Some developers decide to make a "mock up" or prototype of a game before actually going any further with it. This may involve some programming or it may just be a series of drawings to show what the game might look like. An extreme case of a mock up is to create an actual animated demonstration of the game with color graphics and moving objects.

The mock-up stage is useful because it gives all involved parties an opportunity to get a better look at the idea before it goes much further. The whole idea becomes a little more "concrete" at that stage and is thus easier to critique. The entire look and/or structure of a game can often be completely changed at this point.

Programming

Programming is usually one of the most important and difficult steps in creating a game (if not the most important step). Programming a video game is not as simple as telling the machine to move a space vixen from here to there and swing her sword. Simply put, programming is all math. You increment one value, you decrement another. Everything a video game does depends on numbers; from calculating the score to drawing the graphics on the screen. It can be difficult for non-programmers to understand, but even the "intelligence" displayed by enemies in the game is merely the result of complex formulas which respond in certain ways, depending on other variables, including just what you, the player, do.

Programming a computer is generally pretty straightforward. You write the programming code, then test-run the program. A video-game console is a bit tougher, since they generally don't have keyboards, disk drives or much memory. Most console manufacturers have developers' stations for programming the games and designing the graphics. Others may build an interface that allows the programmer to write the program on a personal computer and then "download" the code (via a cable) to a special cartridge plugged into the game console.

The machines themselves impose limits on what can be done. For instance, Nintendo game graphics are composed of 8 X 8 pixel blocks that can be used either to construct backgrounds or be made up as "sprites" that can be moved. Since 8 X 8 is pretty small and doesn't permit much detail, objects are generally composed of multiple sprites. For instance, Mario of *Super Mario Bros.* is normally composed of four sprites. He's two sprites tall and two wide, meaning 16 X 16 dots. When he becomes Super Mario, his height increases and more sprites are needed.

But it gets more complicated because the machines generally can only draw so many sprites at one time, which limits the number of objects that can appear on-screen at any given instant. For instance, normally an NES can only display eight sprites on a horizontal line. If Mario and the Pookas are each two sprites wide and there are three Pookas moving toward him, that's eight sprites on that line. A screen may (and commonly does) have more sprites appearing at once than this. However, you'll notice that the programmer avoids the eight-sprite limit by placing the objects at different levels vertically, and while there may be as many as 24 or more sprites on the screen at the same time, there are never more than eight on the same horizontal plane.

What happens if you try to put more than the limit on one line? Well, if the programmer tries, the machine simply won't do it. The programmer gets around this by using each sprite two or more times on the same line. During one screen redraw (about 1/30th of a second), Sprite 5 might be part of one enemy, and on the next redraw it's part of another, alternating its use from one object to another. This is why the objects in some games "flicker" when a lot of them appear on the same plane.

And this is just the beginning. The programmer must then keep track of the position of the characters, assign the correct graphics to the sprites and background blocks, determine what actions happen if two characters collide, and on and on.

Graphics

First and foremost, the main limit on just about any graphics are the displays they will be shown on. For instance, the Nintendo Game Boy's black-and-white LCD display can't show flashy color graphics. An IBM PC with a VGA card can display 256 colors at once in a number of different resolutions (the number of dots/pixels on the screen) but requires a special monitor to do so. Most video games and small home computers (like the C-64) stay within a resolution limit of about 320 pixels horizontally and about 240 vertically. This is to conform to the limitations of the television standard used in the U.S. Until high-definition television (HDTV) comes along, the resolution is not likely to get much better.

The graphics for a game are designed in a number of fashions, sometimes special development hardware is designed for a specific computer or game system, sometimes graphics are created on another machine and "imported" into the destination machine.

As with everything else in modern computer technology, there are limits. For instance, to store 320 X 200 pixels of graphics with pixels in any of four colors will consume about 16 kilobytes (16K) of memory. A lot of game cartridges contain less than 128K of data (many as little as 32K).

Color is another factor, for the more hues the machine allows, the more memory the graphics take. So a 16-color sprite will take twice as much memory as a four-color one.

Most computers and game consoles get around this problem by allowing many colors on the screen, but limiting any given sprite to a smaller range, like four colors. Thus, the sprites that make up
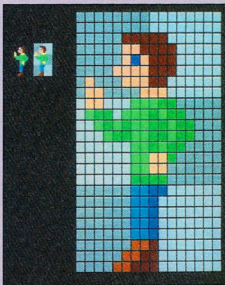

Figure 1

Overtime.

This is roundball as it was meant to be played. By the playground legends who take the game from the pavement into the stratosphere. The competition is so intense you can feel it, the graphics as explosive as each thundering slam. Play just once, and you'll know it's the only game in town. HOOPS.™ New from Jaleco.

At your favorite video game store now!

JALECO™

Serious sports. For serious players.
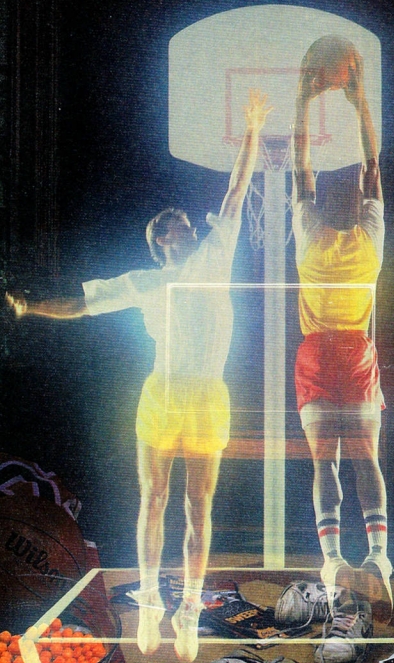
a character's head might use one set of four colors, and those composing his body will use a different set. Each sprite only contains four colors, but putting multiple sprites together creates the illusion of larger objects with more color. Figure 1 shows a sample of a character composed of six sprites, each containing four colors (actually, three colors and the "transparent" background color, black).

Sprites are not the only way to work with graphics; many computers use line-drawing techniques and bit-blitting. Line drawing involves drawing strings of pixels from point to point to create outlines (which can oftentimes be filled in — if the programmer desires). Bit-blitting is a technique similar to the sprite, but it can involve blocks of varying sizes, and there is really no restriction to the number of them. The drawback is that while most video-game consoles feature special hardware for handling sprites, the computer generally does not (a few do) and must do all of this work in its own RAM. For this reason, a computer will require many times more memory for a specific game than would the average game console. An NES contains only 4K of RAM memory because most of the game data is stored in the hardware of the cartridge. A computer may require anywhere between 64K and 512K (or more) to play the same game because it must load the game play and graphics data into RAM.

As I mentioned previously, backgrounds in many games are composed of multiple small blocks that are assembled to create a larger picture. Some blocks may contain portions of larger objects or just a repeating pattern which, when the block is stamped down repeatedly, creates an effect of a larger object or surface. Figure 2 shows a screen of graphics I created for Omnitrend Software's computer game Breach II. Here you can see various bits of rooms, walls, equipment and so on. Figure 3 shows how these elements are put together to make a scene. Notice that if the

Figure 2

patterns are created properly, it becomes practically impossible to tell where one block ends and another begins. (By the way, these blocks are 24 X 18 pixels and can contain up to 16 colors.)

While most game graphics are created from scratch by artists and programmers, it is becoming more common to "digitize" pictures for additional realism, which means converting an actual video image into a computer-usable format via special hardware. Its main disadvan-

tage is that holding "real" quality requires a lot of colors, which many older systems cannot generate. Newer-generation computers and video games have better graphics and color capabilities, so digitized imagery is likely to become more common as time goes by.

Sound

This varies a lot, primarily depending on the sound capabilities of a particular machine, but most game sounds are programmed. The programmer tells the machine's sound-generating hardware to generate a tone, then specifies variables such as volume, pitch, duration, distortion and so forth. But one tone, however cleverly manipulated, can't really sound like much. That is why most systems have multiple "voices." The programmer makes each voice create a different tone, and when two or more of them are played simultaneously, a more complex sound comes out. Because good sounds are a lot more complicated than the binks and bonks so common in older video games, they, like graphics, can require a good amount of memory to store. Real sound has a great deal of subtlety — changes in tone, vibrato and resonance. Most computer-generated sound is too "clean" to be real.

Like graphics, sounds can also be digitized and broken down to be played back by a sound chip. The problem here is that a decent "sample" of this sort can be huge. A two-and-one-half minute sample can take upwards of 700K to store! Even a small, two-second cartoony sound can chew up as much memory as an entire screen full of graphics. Digitized sound will become more common only on machines with large-capacity cartridges or other mass data storage capabilities (like the TurboCD player for the TurboGrafx-16).

Conversions

While converting Ms. Pacman to the Sega Master System (SMS) may not be much of a problem, trying to convert something like the coin-op AfterBurner

Figure 3

is a much bigger challenge. Why? For starters the SMS uses a small 8-bit microprocessor of the 6502 family as its main "brain," and the *AfterBurner* coin-op uses a pair of 16/32-bit 68000 processors — which are many times as powerful and fast. A Two-Mega card for the SMS can contain two megabits of data (256K), while the *AfterBurner* coin-op contains about 4 megabytes (4096K)![1]

It would seem the SMS is underpowered for the task. It's akin to trying to simulate a Ferarri Testarossa with a Daihatsu. To make it work, the programmer must push the limits of the home system hardware and try to make it perform as much like the coin-op as possible. Graphics must be simplified without losing the "look" of the arcade and extraneous details must be omitted. In a nutshell, the programmer(s) have a real challenge ahead of them.

Conversions from one home system or computer to another is generally not as difficult, though converting a game from the Amiga down to the NES might be a tricky proposition. In many cases, it's easier to initially design the game on the least powerful system you plan to put it on and then port it up to other machines. For instance, go from the SMS to the Genesis as opposed to the other way around.

Alpha Versions and Beta Testing

The first working versions of a program are usually called "alpha" versions, which are tested by a number of people close to the project. At this stage it's important to make sure the game is working the way it's supposed to. If the character runs to the left when the controller is pushed to the right, something is seriously wrong. The programmers take the information from this testing and sit down to correct the problems.

Once the program is more or less completed, all subsequent versions are then termed "Beta" releases. These are close to final versions and are given to a larger number of "Beta testers" to try out. The Beta testing stage is one of the most arduous. The testers are encouraged to try to make the game malfunction or crash and document the problems along with what they did (if anything) to make it occur.

This stage is important because nobody wants to release a game that will go haywire when the player does something the programmer didn't expect. Beta testers will do everything they can to mess up the game, from pushing console buttons at inappropriate moments to purposefully killing their characters off in odd places to see what effect that has. If anything strange happens, they note it in a test report.

While the format of the test report varies from company to company, many outfits list the "bugs" they find by a classification system. A class-A bug is a crash bug, one which causes the console or computer to freeze up or utterly fail. Other classes are of descending importance, and may include such things as malfunctions, sound or graphic glitches, control problems and so on.

Every time bugs are found in a round of beta testing, the programmers take the reports and make revisions. When all the reported bugs are licked and no more are found, the game is considered finished and ready for production.

Back Doors and Easter Eggs

After all the testing that goes on, you'd think that actions that would let you get unlimited lives or start at any level would never appear in a released game. Well, the reason so many of these "easter eggs" appear is because a lot of them are "back doors" the programmers put in to allow the game to be tested more easily. For instance, completing a comprehensive game is a daunting task, and few companies can afford to wait long enough for their testers to master the game so that they can try out each level. To make this testing phase easier, the programmer provides a way to start anywhere and makes the player either unkillable or gives him/her an unlimited number of lives (and perhaps disables any time limits as well). Fortunately for the buyers, sometimes these back doors aren't locked before a game goes into production, and some lucky player happens to find it.

Production

What happens next depends on what system the game is intended for. Games for most computers are "mastered" onto a floppy disk, oftentimes complete with special "protection" formatting to make the disk difficult for users to copy. Because disks are quick and cheap to purchase and prepare, a computer program can be put into production within a day of its completion.

Games for a cartridge-based game system are a little more complicated. The completed program must be masked onto "master" ROM (Read Only Memory) chips and a test run of the chips must be made. These are placed in cartridges and tested to make sure the program works properly in this form. Once a good master ROM set has been made, the cartridges are put into production.

Some cartridges contain more than just ROM chips. Some contain special hardware to save high scores, lithium batteries for storing the last saved game position or even extra RAM chips or custom hardware required by a particular game (for example, the Atari 7800 *Ballblazer* cartridge contains a sound chip).

Cartridges are not cheap to manufacture either; they can cost between $5 and $10 each. This is a lot more expensive than the disks used by computers, which, even with copy protection added, will rarely ever cost more than $2 each.

Right this way . . .

And that's the 25-cent tour. Remember, this is a generic description of the process by which video games are designed and, as such, it does not represent every possible variation. It should give you a pretty fair idea of how the process goes, though. Of course, all this knowledge won't help you one little bit when you're struggling to get your ninja vixens through the wolves, but that's the way it should be. Games are for playing, not analyzing. 🚀

DON'T TOUCH.

INTRODUCING U-FORCE,™ THE REVOLUTIONARY CONTROLLER FOR YOUR NINTENDO ENTERTAINMENT SYSTEM.® SO HOT, NO ONE CAN TOUCH IT.

Now you can feel the power without touching a thing. It's U-FORCE from Broderbund®-- the first and only video game controller that, without touching anything, electronically senses your every move. And reacts.
There's nothing to hold, nothing to jump on, nothing to wear.
U-FORCE creates a power field

that responds to your every command--making *you* the controller. It's the most amazing accessory in video game history--and it will change the way you play video games forever. It's the challenge of the future.
U-FORCE. Now nothing comes between you and the game.

Broderbund

WORLD BE THE SAME.

Genesis® 16-bit. The ultimate dimension in game play.

For the first time, the powerful technology used in arcade games has come home to let you play games that look, sound and play exactly like they do in the arcade.

Genesis brings games alive with vivid high-definition graphics. Voices, sounds and music so true they turn the game into a reality you can feel. Plug in a pair of headphones for stereo sound that surrounds you. And soon, with the TeleGenesis™ modem, you'll be able to play against friends in other cities. Or across town.

The incredible reality of Genesis could only be brought to you by Sega,® the master of arcade entertainment. Creator of arcade block-busters like Out-Run,™ Altered Beast,™ Thunder Blade,™ Afterburner,™ Zaxxon™ and Shinobi.™ And with the Power Base Converter™ you can play all your Sega Master System games, too.

The power has been unleashed. The adventure begins. And this is just the beginning of the Genesis era. There's more to come.

Unretouched Photo
Altered Beast,™ the Sega® arcade hit, comes with the Genesis system. TeleGenesis™ Modem, Power Base Converter™ and other games sold separately.
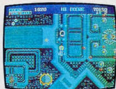
Thunder Force II™

Forgotten World™

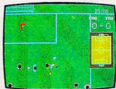Tommy Lasorda Baseball™

Last Battle™

Arnold Palmer Tournament Golf™
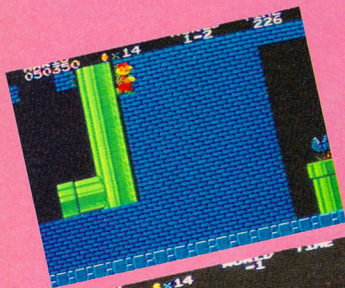
Hollo Fighter™

Ghouls 'n Ghosts™

Rambo III™

Soccer

SEGA
GENESIS™

CIRCLE #116 ON READER SERVICE CARD.

EASTER EGG HUNT

Super Mario Bros
### (Nintendo for the NES)

There has been much talk of a "Minus World" in SMB, and Jed Smith of Colrain, Massachusetts, tells us how to get there. In World 1-2, stand on the pipe shown and break the second and third bricks from the right. (You must be a large Mario to do this.) Position Mario at the left side of the pipe, with one foot hanging off the edge. Using A, jump up and move the controller to the right, being careful not to break the single brick.

If you time it correctly—you'll likely have to try this a few times to succeed—you will be pulled through the wall to a bonus area. Select the first or third pipe to go to the watery Minus World. Great work, Jed.
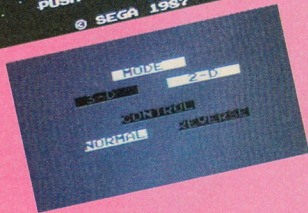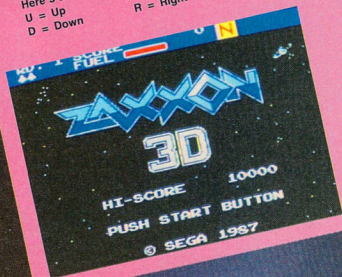
Zaxxon
(Sega for the SMS)

Though this is marketed as a 3-D game, you can play it without the SegaScope 3-D glasses. At the title screen, hit the Pause button and a secret selection screen will appear. Here you can pick between 3-D and 2-D viewing and choose how you want your ship controlled by the directional pad—Normal or Reverse.

EASTER EGG HUNT

LONG AGO, FAR AWAY IN SPACE, THERE EXISTED A "FANTASY ZONE" WHERE A COURAGEOUS HERO CALLED OPA-OPA (THE PLAYER) FOUGHT IN A VALIANT CAUSE TO RESCUE THE "FANTASY ZONE" FROM ITS ENEMIES.
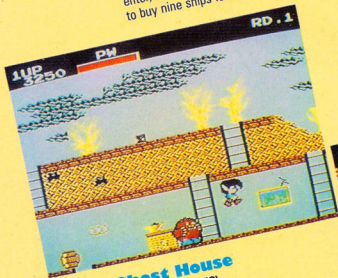
IN THE SPACE YEAR 6216, THE INTERPLANETARY MONETARY SYSTEM COLLAPSED, CAUSING ALL OF THE PLANETS TO BECOME

Fantasy Zone
(Sega for the SMS)

Here's a tip that will let you build up your arsenal of ships: When you see the message screen during the demo mode, as the story scrolls by, press the directional pad 50 times before starting the game. If you earn $10,000 without going to the shop, the first time you enter, the store will give you the opportunity to buy nine ships for $9,000. Quite a bargain!

Blades of Steel
(Konami for the NES)

If you're having trouble beating the computer in this challenging hockey simulator, James Homans, of Valparaiso, Indiana, has something to help you. If you take the puck deep into the opposing team's zone (so the screen scrolls as far as it can) and get into a fight near the goal without falling down, the referee will call a penalty shot in your favor. It takes some work to get the routine down, but before long you'll have the edge. Thanks a lot, James!
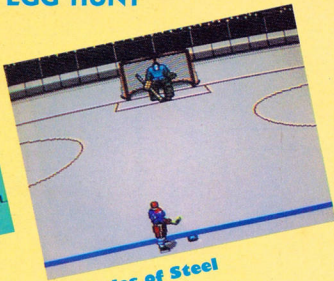
Ghost House
(Sega for the SMS)

At certain portions of the game, there are overhead lamps that hang down. To temporarily freeze the action on-screen, jump up and hit the lamp with Mick's head. This will stop everything in its path for about four seconds.

Also, to make Mick momentarily invincible, you must jump over and capture 16 arrows. This is fairly hard to do, but the benefits, though shortlived, are enormous.
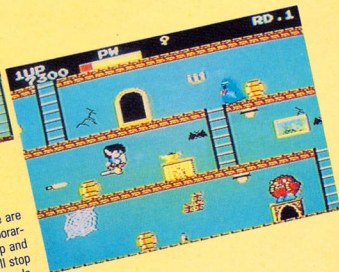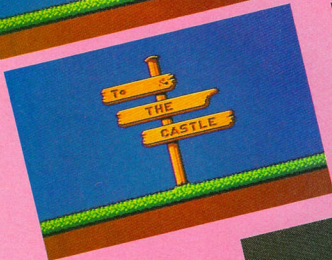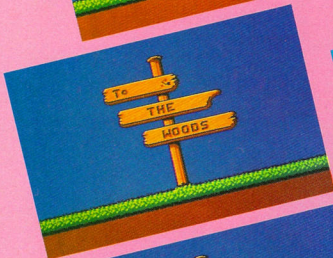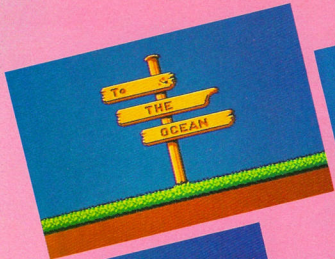
Mickey Mousecapade
(Capcom for the NES)

Capcom has programmed a stage select into their popular kids' game, and Chris Shanor, from Round Lake, Illinois, has given it to us. If you hold A, B, SELECT and one of the following directions on your controller, you'll be able to go to these areas:

U = Castle
L = Woods
D = Pirate Ship
R = Ocean
Good job, Chris!

Mickey Mousecapade also contains a continue feature that helps you pick up where you left off. Simply hit U and START, and you'll restart at the last level you were on.

Golgo 13
(Vic Tokai for the NES)

Ian Sutherland has told us of a stage select buried in this spy thriller. After the helicopter demo ends, enter this sequence as soon as you see Golgo's eyes:

On Controller 1, hit START. Follow that by holding down L, U, A and B on Controller 2, while you hit U, A, B, then START on Controller 1. (Yes, you'll have your hands full!)

If it all gets entered correctly, a sub-screen will come up, and you can pick what area you'll start on. Good tip, Ian . . . thanks.
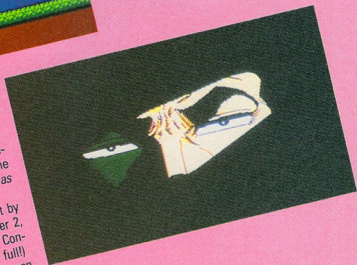
CHILD'S PLAY.

POWER

The Power Glove.™ You plug it in like any joystick. But the similarity stops there. Because now you don't just guide the action. You're in the action.

As soon as you put on the Power Glove, its 3-D sensors track the position of your hand in space. You enter the program code. Calibrate the glove. Center it. And feel the mechanical moves of a joystick give way to free-flowing, instant response. You actually knock out Mike Tyson. Grab the steering wheel of Rad Racer.® Bank and fire your P-38 in 1943™ The Battle of Midway. All simply by moving your hand.

The Power Glove has a unique pro-grammable keypad that gives the best
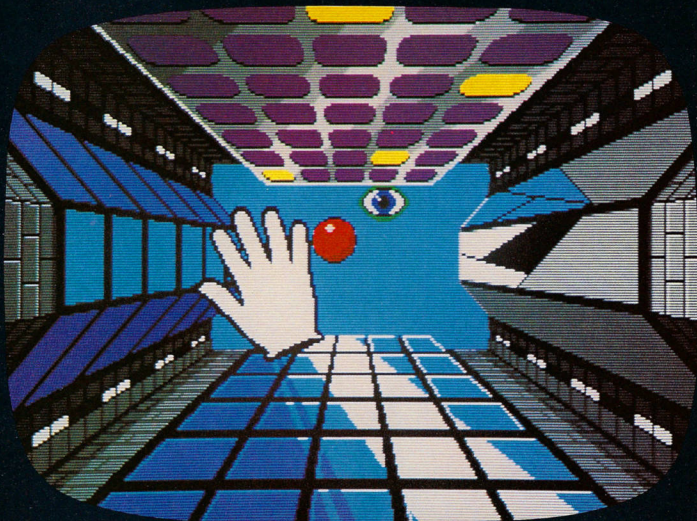
FUTURE PLAY.

With games specifically designed for the Power Glove, you'll be blown into another dimension: the third dimension.

In the '80's, all video game play occurred in two dimensions: up, down; left, right. Starting in the summer of 1990, software designed for the Power Glove adds the third dimension—depth—so that you're playing in a "virtual reality." It's the future of video games. Years ahead of schedule. Look at Super Glove Ball. The hand on the screen is your hand. Its thumb and fingers move instantly, exactly as you command. You strike the ball. Catch it. Throw it. And experience NES™ like never before.

So put on the Power Glove and put on the power of the future.

The Power Glove. Everything else is child's play.

MATTEL **POWER GLOVE**™

Licensed by Nintendo for play on the

Nintendo ENTERTAINMENT SYSTEM®

Official Nintendo Seal of Quality

Look for the Power Glove in the Universal film THE WIZARD.

EASTER EGG HUNT

Gauntlet
(Tengen for the NES)

Winston Denny, of Grapevine, Texas, has sent in a tip that will give you double power in this tough castle-exploration game. If you start off with two characters, then let one of them die, there will be an icon on-screen which represents the supplies the dead character left behind. Move the first player over that icon, and you'll retrieve those supplies! Thanks for your assistance, Winston.
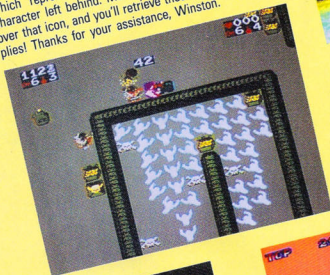
Altered Beast
(Sega for the Genesis)

Sega made a mistake in their *Altered Beast* instruction booklet with the continue feature they described. The *true* way to continue is by holding A while you hit START.

Renegade
(Taito for the NES)

Denham Springs, Louisiana's Terry Walker has provided us with a tip for starting from Stage 4, but it requires you to have two controllers plugged in. (You might need some help from a friend for this one.) While holding U on Controller 2, hit D, D, U, U, R, L then START on Controller 1. Nice hint, Terry!

Space Harrier
(Sega for the SMS)

Sega says that you can get nine continues past the three that are documented in the instruction booklet, but it is *extremely* hard to accomplish. When the Game Over screen comes up, don't hit either No. 1 or No. 2 but enter the following sequence:

U U D D L R L R D U D U

When you hit the last U, if the sequence worked, you'll start up where you lost your last life.

LORDS OF THE RING
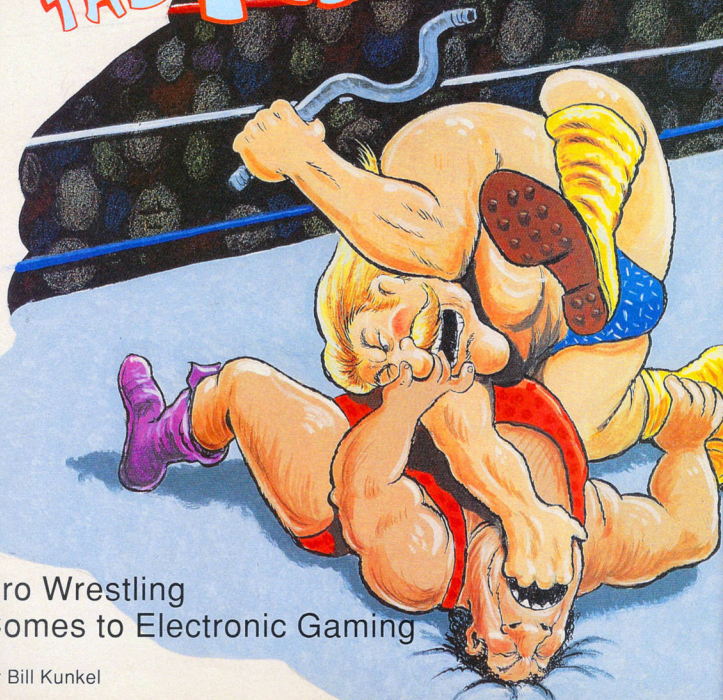
Pro Wrestling
Comes to Electronic Gaming

by Bill Kunkel

Wrestling is the black sheep of the sports and entertainment worlds. Disowned by the sporting establishment as fake and shunned by "legitimate" entertainment as muscle-bound practitioning of low comedy, pro wrestling has always lived in its own shadowy ghetto. However, from its carnival origins to its current apex of popularity as a staple of cable television, pro wrestling has never had a problem drawing an audience.
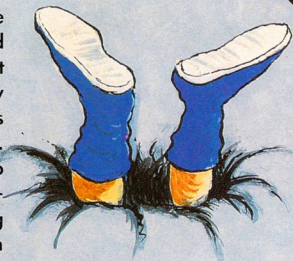
After a short-lived period of national prominence in the early '50s, when the fledgling TV medium was desperate for *anything* that would fill airtime, wrestling returned to the ghetto it had always lived in. In many cities, there was no wrestling on TV, except for some small UHF stations, throughout most of the '60s and '70s. Still, the arenas continued to attract impressive audiences. Madison Square Garden, for example, sold out for most WWWF wrestling shows during the championship reign of Bruno Sammartino (which lasted, with a brief interim, through those two decades).

Then, in 1984, Vince McMahon Sr., the founder and honcho of the WWWF, passed away and his visionary son, Vince Jr., took over the operation. Within a year, the promotion had dropped a "W," acquired a new champion and was headed for a previously unimaginable level of national visibility.

The new champion was a balding bodybuilder named Hulk Hogan who had previously wrestled exclusively as a "heel," or bad guy (as opposed to the "babyface" or good guy he later became). The Hulkster got a shot at cinematic stardom with a short but memorable role as wrestler Thunderlips in Sly Stallone's *Rocky III*. McMahon built on Hogan's moment of celebrity and his enormous natural charisma to bring his *circus maximus* version of pro wrestling to a national audience. Within the next half decade, the

WWF shot to the top of the entertainment heap. NBC has broadcast two prime-time WWF specials (the first such broadcasts in over 30 years!) in addition to its semi-regular *Saturday Night Main Event*, and pro wrestling has again become a TV staple, drawing great ratings for cable networks like USA, ESPN and TBS (whose owner Ted Turner bought his very own promotion, the venerable NWA, just last year).

Moreover, there are wrestler figures, bubble gum cards, lunch boxes, T-shirts, ice cream bars—and, of course, games. Computer and video-game designers discovered the joys of pro wrestling and rushed to produce electronic simulations of the squared circle.

The Early Games

The first computer software product to exploit the burgeoning interest in pro wrestling was *Bop 'n' Wrestle* (Mindscape), a British import with clever graphics and a game interface so confusing, most users never actually learned how to play it! Lack of playability did nothing whatsoever to blunt its sales, however, and the game became a surprise hit.

In what soon became the standard format for arcade-style wrestling simulations, *Bop 'n' Wrestle* matched generic wrestler types (masked man, hillbilly, Indian chief, etc.). The gamer theoretically manipulated his or her surrogate via a joystick.

The problems that would plague this genre were all too apparent in this debut effort, however. For example, it's in the nature of wrestling that one move leads to another. Wrestler A and Wrestler B lock up in the traditional "referee's hold" but Wrestler A quickly establishes dominance by forcing his opponent's head down and snapping on a front facelock. From this position, Wrestler A can

execute any number of moves, from suplexes to a DDT. This phenomenon, known as "chain wrestling," can be reproduced in a simulation, but it takes a computer to memorize the various menus and sub-menus of moves. Various joystick positions represent certain moves at the beginning of the lockup, but once a hold is established, the menu changes, depending on the nature of the hold. This is especially troubling in solitary games where the user goes up against a computer-controlled grappler. While the computer has no trouble memorizing the various sequences, the user, being merely human, tends to get lost in a tangle of confusing commands.

This pattern reappeared in *Championship Wrestling* (Epyx), a game

Mindscape's *Sgt. Slaughter's Mat Wars* shows how far things have come since *Bop 'n' Wrestle*.

that recapitulated and streamlined *Bop 'n' Wrestle* with somewhat slicker graphics and broader system compatibility. While *Bop 'n' Wrestle* was essentially a Commodore 64 game, *Championship Wrestling* appeared on just about all major home systems.

Championship Wrestling offers the usual eight central casting wrestlers and 25 individual moves, in addition to outside-the-ring action. One or two players battle for the championship belt, with pinfalls and (unrealistic) computer scoring. (Scoring hasn't existed in mainstream U.S. pro wrestling in several decades.) Visually, the game presents a slightly different look from *Bop 'n' Wrestle*: The wrestlers are larger, and the ring is angled so that it looks like a diamond rather than a square or rectangle.

The most recent addition to the computer wrestling scene is *Take Down*

Acclaim takes the familiar stars of wrestling, like Hulk Hogan, and puts them in your NES in *Wrestlemania*.

(Gamestar), an arcade-style contest that brings tag-team action to the computer ring. Generic wrestlers like Mr. Cool, Ninja, Tomahawk and Sultan can be teamed in any combination to compete in the GWF (Gamestar Wrestling Federation). In addition to the standard and custom moves, *Take Down* allows tired grapplers to tag out to their partners in crucial situations, thereby enhancing the game's strategic component.

Mindscape's Bop 'n' Wrestle *was the first to test wrestling's popularity on computer.*

The Strategic Approach

While there has never been a lack of arcade-style wrestling games, there is only one grappling simulation with a strategic point of view. *MicroLeague WWF Wrestling* (MicroLeague Sports Association) permits users to "manage" actual WWF superstars using digitized visuals taken from videotapes of WWF matches. In this one- or two-player game, users select moves and maneuvers from their wrestler's menu. The computer then examines the various factors (dominance, damage and the difficulty of the selected moves) and, using statistic probability, determines the result, which is then displayed on-screen.

MicroLeague WWF Wrestling is available on the Atari ST and C-64 and is scheduled for the Amiga and IBM PC computers. There are also additional *Superstars* disks that allow users to manage a variety of wrestlers.

Video-Game Mat Action

Because of their suitability for arcade-style action, video games are an excellent medium for wrestling action. The popular Nintendo Entertainment System has been

especially fertile ground with three excellent simulations already available and more to come.

The first NES offering, *Pro Wrestling* (Nintendo), is still considered by many fans to be the best game of its type. The game displays a remarkable understanding of how wrestling works, with customized moves, an easy-to-understand interface and action outside the ring. *Pro Wrestling* is an action simulation that looks and plays just like the real thing. Each of the generic wrestlers has a distinct character and appropriate moves (the Mexican-style Starman's repertoire relies heavily on flying maneuvers, for example), with access to the ring ropes (for added momentum) and even to the ring posts (for those delightfully fulfilling "Superfly" splashes off the top ropes). After several years on the market, *Pro Wrestling* still has not been surpassed for wrestling thrills and realism.

Gamestar's *Take Down* is the latest computer wrestling program to join the fray.

Acclaim's *Wrestlemania* brings the stars of the WWF to an arcade-style contest, where users can control the Honky Tonk Man, Hulk Hogan, Macho Man Randy Savage and Andre the Giant, among others. *Wrestlemania* adds several non-realistic game elements to the program by giving each wrestler a "power icon": Hogan's crucifix, Honky's guitar, etc. When a wrestler's icon appears on-screen, it gives him extra strength if he can make contact with it. Not for purists, perhaps, but still an entertaining contest.
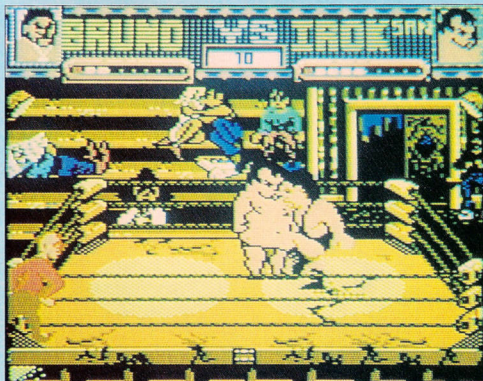
Mindscape recently announced the *Sgt. Slaughter's Mat Wars*, a new grappling program that will feature America's favorite wrestling patriot.

The most recent addition to the NES grappling pantheon is *WCW, World Championship Wrestling* (FCI), an action game that uses wrestlers from the NWA including the Road Warriors, Lex Lugar, Rick Steiner, Sting and Steve "Dr. Death"

istically reproducing the grunts, groans, moves and maneuvers.

Arcade Superstars

The most visually satisfying arcade-style wrestling game is American Technos' amazing new coin-op hit, *WWF Superstars of Wrestling*. The graphics alone make this game worth a pocketful of quarters. *WWF* stars including the Ultimate Warrior, Big Bossman, Ted DiBiase, Hacksaw Jim Duggan and, of course, Hulk Hogan, strut their stuff in this uncannily realistic-looking entry. The animations and moves perfectly reproduce the actions of the real-life wrestlers: When the Ultimate Warrior hoists an opponent high

Gamestar's *Take Down* lets you choose from a group of tough but dumb wrestlers for the best in computerized tag-team action.

Williams in the familiar arcade mix.

The NWA (the promotion Ted Turner recently purchased in order to keep TBS stocked with suplexes and snapmares) is actually the oldest of all existing promotions. Even the mighty WWF traces its roots back to this organization: The WWWF was created after a disputed title bout between NWA champ "Nature Boy" Buddy Rogers and former kingpin Lou Thesz in 1957. Thesz was awarded the NWA crown while Rogers also maintained a claim to the strap. A group of Northeastern promoters, led by McMahon Sr., recognized the Nature Boy's claim and brought him back East to take on their latest No.1 contender, an Italian strongman named Bruno Sammartino. Sammartino defeated Rogers with the Abruzzi backbreaker in record time and the WWWF was born.

The Sega System hasn't been entirely left out in the cold when it comes to wrestling games, either. Its lone contest, also dubbed *Pro Wrestling* (based on the Data East coin-op, *Tag Team Wrestling*), emphasizes the comedic and cartoonlike aspects of the "sport" as opposed to real-

above his head for the ultimate press or Hogan delivers the dreaded legbomb, the visuals are so perfect, first-time players may find themselves rubbing their eyes in disbelief.

Action includes realistic holds and maneuvers and goes further with outside-the-ring play. Added momentum comes

from bouncing off the ropes, and a "power up" feature is even available whereby the user can drop another coin to enhance his surrogate's strength.

New Additions

New wrestling products continue to be announced. Now that the WWF is in its fifth year as a form of popular mass entertainment, publishers have begun to lose their fear of grappling as "just a fad." Mindscape has announced a new computer program, *Sgt. Slaughter's Mat Wars*, starring the titular ring patriot. Tecmo has one more NES grappling game, *Tecmo World Wrestling*, waiting in the wings. Additionally, MicroLeague intends to release new *Superstars* wrestler disks for the IBM, Amiga and C-64 versions of *ML/WWF*. And the success of the *WWF* coin-op is certain to inspire more wrestling in the coin-op world.

After decades in the shadows, wrestling is finally beginning to emerge from that shadowy ghetto discussed earlier. And what more fitting way for wrestling to prove itself as a mass entertainment than through the medium of computer and video games.

In the words of Hulk Hogan: "Whatcha gonna do when Hulkamania runs wild on *you?*" The answer has come back loud and clear from the electronic-gaming industry: Sit back and *smile*!

Slick graphics, a wider variety of moves and multiple-system compatibility were the features that highlighted Epyx's *Championship Wrestling*.

# Bard's Tale™ Fans Rejoice!

Dragon Wars™

The guard at the bridge demands to see your citizenship papers.

Most of the creatures you meet are as friendly as this guy. He wants to take his spear and shishkabob your whole party.
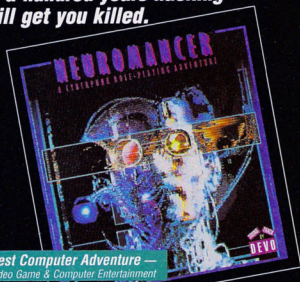
- *Supports characters from Bard's Tale™ I, II & III*
- *Over 60 monsters and 65 spells*
- *State-of-the-art animated graphics*
- *A unique combat system: choose complexity of combat resolution, determine spell strength, select tactics of ranged combat*
- *An easy-to-use pop-up window system*
- *Save the game anywhere*
- *A paragraph book for enhanced storytelling*
- *Automap keeps track of your every move; no graph paper needed*

Actual Apple IIe screen. Available for the Apple IIc/e/ IIGS & C64; Coming soon MS-DOS & Amiga
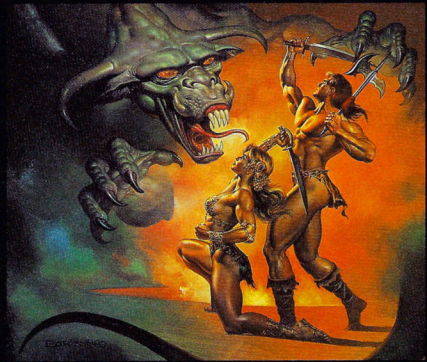
In a hundred years hacking will get you killed.

Best Computer Adventure —
Video Game & Computer Entertainment

Named Top Adventure —
Computer Gaming World

Available for C64, Amiga, MS-DOS, Apple series. Cluebook available.

1989 SPA Graphics Award Winner
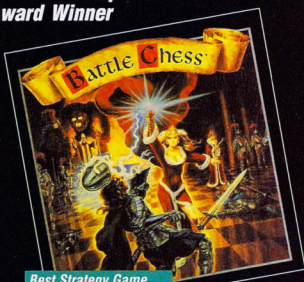
Best Strategy Game of the Year —
Amiga User

Available for C64, Amiga, MS-DOS, Atari ST, Apple IIGS.

COMING SOON FROM INTERPLAY: MEAN TIME™
A time-travelling epic for the Apple II series & C64.

To order these games direct: 1-800-969-GAME

Neuromancer is a trademark of Cabana Boy Productions. Bard's Tale is a trademark of Electronic Arts. Amiga and Commodore are trademarks of Commodore Business Machines. Battle Chess, Dragon Wars and Mean Time are trademarks of Interplay Productions.

Interplay™

1575 Corporate Drive
Costa Mesa, CA 92626

CIRCLE #122 ON READER SERVICE CARD.

Step into one of the most advanced interactive movies ever created.

DAVID WOLF™

SECRET AGENT

A sophisticated and lethal stealth fighter has been stolen.
A brilliant aerospace engineer is missing.
The deadliest crime force on earth is preparing to destroy humanity.
You are the world's only hope: David Wolf: Secret Agent.

25 Tons of Flying Mass Destruction
Experience the A-10 Thunderbolt II

A-10
TANK KILLER™

Actual 256 Color MS-DOS Screens

Actual digitized A-10 cockpit and realistic controls **really** put you into the action!

Easy-to-use strategic maps show troop location and movement, intelligence reports, goals and terrain.

3Space™. 256 color, light source shaded 3-D. Includes mountains, rivers, canyons, animating vehicles and gradient fill skyline.

How Much Can You Handle?

- Visual Heat through Full VGA support.
- Six different missions in solid-filled 3-D.
- Complex character intelligence system.
- Unique character interaction system.
- Incredible Explosions! Big tanks make a big boom.
- Easy-to-use control system. Grab the joystick and go!
- 10 camera viewpoints .
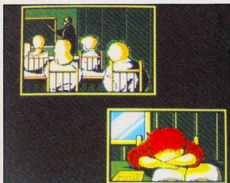- Full musical score with Roland and AdLib support.

The Adventures of Tom Sawyer

Seta

For the Nintendo Entertainment System ($36.99)

The Adventures of Tom Sawyer is an adequate, if somewhat uninspired, running and jumping game. It has good graphics and animation, but also a high frustration factor and little to distinguish it from a multitude of other games of this type.

The storyline behind this game is that Tom Sawyer is asleep in class and dreaming of adventure. His goal is to rescue his princess, er, girlfriend, Becky Thatcher, from the evil king, uh, wizard, uh, villain, Injun Joe. (See what I mean about originality?) At any rate, the object is to guide Tom through a variety of different scenes, overcoming the obstacles therein. As with just about every other game of this type, there is an "ultimate villain" at the end of each level that must be defeated to move on to the next level.

Tom is guided using the joystick and buttons. He can run forward and backward, and the background scrolls forward (but not back) as he advances. The "A" button makes Tom jump, while the "B"

When the hero of our story, Tom Sawyer, dozes in his classroom, he dreams an elaborate fantasy of saving his fair lady, Becky Thatcher.

button allows him to use his weapons. He starts out with a pocket full of rocks in apparently unlimited supply. These have a fairly short throw range, but it can be increased by jumping while throwing (not an easy thing to master, mind you). If Tom collects a slingshot, he can shoot farther and faster, but there are actually places where the slingshot is a disadvantage because the enemies he faces are so low to the ground. Unfortunately, there doesn't seem to be any way to get rid of the slingshot.

Tom can also collect hearts that effectively shield him from his enemies for a short time. This can be helpful because the screens of The Adventures of Tom Sawyer are full of weird enemies. The game is broken up into distinct levels, with such titles as "Down the River," "In the Sky," "Through the Forest" and "In the Haunted House." The early levels feature knife-wielding pirates, rolling barrels, seagulls and lightning-fast octopi (I said they were weird). Soon these are replaced by the likes of frogs, eagles, black penguins, mutant moths, punk monkeys, skeletons and the like. The "ultimate enemy" at the end of each level looks pretty mean, but each has a weak spot that is hinted at in the instructions.

Onboard the riverboat, Tom comes face-to-face with a slew of thugs, all bent on snapping him out of his elaborate dream world.

Each time you kill an enemy, that enemy is replaced by a gray block. If the block contains the letter "T," then you should collect it, because 20 Ts enable you to get an extra life. Sometimes, however, the block contains a skull that must be avoided because it deducts 10 Ts from your collection. Of course, each of the enemies has unique weapons, ranging from the pirates' thrown knives to the evil witch's red fireballs. The demon in the haunted house even throws little tiny demons at you!

The Adventures of Tom Sawyer was, for me, an exercise in frustration. Each time you get killed—an easy thing to do, believe me—you get sent way back to the beginning of the current level. There is no save or password feature; you must play this game from the very beginning every time and suffer going all the way back when

Something Deadly in the Air.

The Stealth Advanced Tactical Fighter. America's most guarded military secret. And now you're in the cockpit, ready to unleash the explosive power of the F-117A on rival forces around the world. The mystery is over. And the enemy is toast.

The Best Flying Game Ever for the NES.

- Full F-117A aerodynamics. Barrel rolls, 360 degree loops, nose-bleed dives, and screaming banks.
- Awesome 2-player dogfights.
- "Stealth mode" makes you invisible to enemy radar.
- Over 100 deadly missions around the globe.

You won't be alone if you hit water. Underfed sharks are sure to attend your burial at sea.
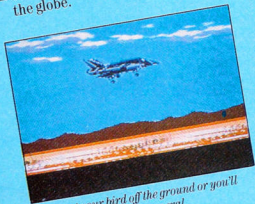
Better get your bird off the ground or you'll be shining shoes for the general.

Your stomach just made an illegal U-turn after that last 6g roll. Kick into "stealth mode" and blast that bogey squadron into scrap metal.

you make a slip. You can continue from the beginning of the level where you last died during the current play session, but even this doesn't help much.

This isn't a bad game, but with the large number of similar games available for the NES, you will want to look at others before deciding to buy.

—David Plotkin

Seta, 22301 South Western Ave., Suite 107, Torrance, CA 90501; (213) 328-7084.

Where in the World Is Carmen Sandiego?

Sega

For the Sega Master System ($39.95)

From the casebook of Clay "Red Eye" Walnum, Private Investigator:

At 5:00 a.m., Friday morning, July 29, I sat in my dingy office, laying waste to a breakfast of cold pepperoni pizza and hot chocolate, when my computer's message light flashed. I leaped from my chair, spilling hot chocolate on the latest issue of *Detective's Monthly*, and grasped the printed sheet that was even now ejecting from the printer.

As an experienced detective, your task is to track the exploits of a gang of criminals around the world, picking up clues along the way.

Sandiego's gang had been at it again. According to the message, a female suspect had been seen in Moroni, Comoros, in possession of a sultan's stolen perfume bottle.

This was my chance for the big time! Nailing one of Carmen Sandiego's people would make me front-page news. Shoving the pizza off my desk and onto the floor, I located my phone and called Trans-Oceanic Airways, making a reservation on the first flight to Comoros.

Even though Africa was stiflingly hot, I didn't waste time. As soon as I touched down at Moroni Airport, I made my way into the city to question the witnesses. My first stop was the embassy, where I was informed by the ambassador that he had seen the suspect leave in a convertible. She had said something about bringing a message to the president.

I made notes and moved on to the library. A mousey woman informed me that the suspect, carrying a tennis racket, had checked

out books on the Etruscans. Flipping through my *Detective's Almanac*, I quickly determined that the Etruscans had come from Italy. Further, Italy's government was a republic with a president. Ah, hah! Rome!

Before getting back to the airport, I found a phone booth and dialed up my crime computer. I already knew the suspect was female, drove a convertible and liked tennis. That might be enough evidence to get me an arrest warrant. To my disappointment, I was informed that two people fit the description I had so far: Carmen Sandiego and Lady Agatha. Denied a warrant, I continued on to the airport.

Immediately upon landing in Rome, I was the victim of a vicious attack by a thug with a pistol. I escaped with both my health and the certain conviction that I was indeed on the right track.

Only when you have matched up the clues with the list of criminals in the computer can you be issued an arrest warrant.
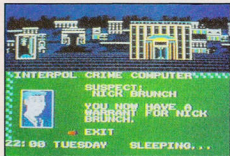
After recovering from a bout of jangled nerves (guns, especially when fired in my direction, have that effect upon me), I visited the palace. A guard then informed me that the woman I was pursuing had left in a vehicle flying a golden-lion flag. Rats! I had missed her again. No matter, I was getting closer, especially after learning from the librarian that my suspect had checked out all the books on Veddah artifacts. That knowledge, coupled with my trusty *Detective's Almanac* (which has two pages of full-color flags), pointed me to Sri Lanka.

In Sri Lanka I learned that the suspect, who had been wearing a fancy ring, had been especially curious about the ancient Franks. She also claimed she was a textile buyer interested in fashions. A quick check in my *Detective's Almanac* and I knew she was on her way to Paris, France.

In a state of acute anticipation, I dialed up the crime computer and added the ring to the suspect's description. Clutching an arrest warrant for Lady Agatha in my sweaty paw, I climbed aboard a France-bound jet.

I knew immediately my chase was near its end. The moment I disembarked from the jet, I was caught up in a whirlwind of action. Lady Agatha had lain in wait for me, hoping to gun me into history and make good her escape. Of course, she was no match for me. Soon she was in the custody of the local police.

"What are you doing?"

The sound of my wife's voice yanked me back to the real world. France vanished, replaced by the familiar surroundings of my living room.

"I'm playing a game called *Where in the World Is Carmen Sandiego*," I explained. "It's pretty neat. Not only is it fun, but it's also educational." She picked up the box. "An educational video game? Geez, don't tell the kids." As if on cue, the kids tumbled into the room, grabbed the controls and got to work solving the Sandiego gang's next caper. I sat back, grinning, knowing that the kids were about to learn a great deal about the world.

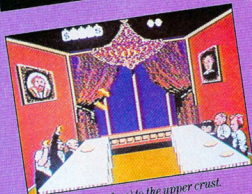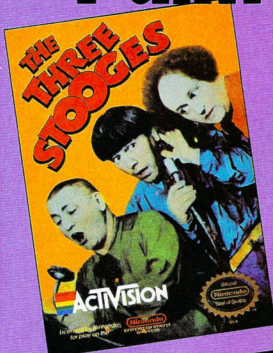"Yeah," I whispered, winking. "Don't tell the kids."

—Clayton Walnum

Sega of America, 573 Forbes Blvd., South San Francisco, CA 94080; (415) 742-9300.

Defender of the Crown

Ultra

For the Nintendo Entertainment System ($39.95)

Second-century England is the setting for this classic simulation of chivalrous swordplay, jousting and castle raiding. The king is dead and his crown missing. The Normans and Saxons are waging civil war, each accusing the other of doing in the king and making off with the crown. In this graphically extravagant adventure simulation, the player takes on the role of one of four good knights. Initially, each has varying degrees of skill in leadership, jousting and swordplay. The victorious player accumulates wealth, power, more skills, an army and, eventually, the crown.

Ultra's *Defender of the Crown* places you in the heat of an English civil war, shown on the NES in wonderfully crafted graphics.

This is the NES version of a popular computer game first released by Cinemaware for the Commodore Amiga. It was a great seller, primarily thanks to its breathtaking graphics. The game play, which was poor at best, was secondary. Has the cartridge conversion been faithful to the original or have the game-play mechanics been improved? Sadly, both the graphics and playability have suffered in the translation, but it is still a good adventure game with some of the best graphics seen on the NES.

The player selects a knight, to represent him throughout the game. In the beginning the other Saxon armies are allies. Their successful battles accrue the player more monies. As the game progresses and the player is closer to being crowned king, other Saxons may become adversaries, since they too wish to take over the kingdom. An introductory "scroll" is presented, with text intended to look like Old English. Unfortunately, this font is rather difficult to read. Robin Hood briefs the player at the start of the game and promises to assist in as many as three battles.

The player selects from such options as calling a jousting tournament, mounting a conquest, raiding, purchasing an army or reading the map. The menu is easy to navigate. A simple pointer moves at the control pad's request. The destination is selected by positioning the arrow on the map and pressing the button.

In jousting the player selects one of six opposing knights and rides against him. A carefully positioned jousting pole knocks the opponent off his horse. Killing the horse, however, means dishonor and loss of all wealth. Controlling the jousting pole is sluggish at best. There are only a few brief seconds, when the joust is in first-person view, where the player actually is a "participant" instead of a spectator.

Once one of the riders is dismounted, a one-on-one battle ensues on foot with the "morning star"—a spiked ball at the end of a chain. Again, the response to user controls is sluggish. If the timing is good, the ball will whip around and knock the opponent soundly on the head, with protection provided by a shield.

Should the player defeat all six opponents, he wins the tournament and increases his financial and leadership traits. A loser continues the game, with increased leadership ability for any successful jousts along the way.

After enough money has been collected, the player purchases an army with which to mount a conquest. Foot soldiers, knights, catapults and castles are available, and the menu option for reading the map allows the player to scout ahead before launching into battle. The user doesn't have any direct control of his soldiers during a conquest, but battle strategies, such as "hold your ground" (when the numbers are in your favor) or "ferocious attack" (when you are seriously outnumbered), are selectable. The results seem to be a foregone conclusion, based more on total manpower and leadership than anything else.

The player may also raid a castle under the cover of darkness. Here swordplay is the key to success. No matter how quickly the controller is manipulated, the knight thrusts and parries at a slow, steady pace. This sequence is reminiscent of the "paper cutout" style of animation used in the *Monty Python* shows (read: not very realistic). Such raids are generally foolish undertakings.

Each move the player makes is countered by all the other opposing Norman and allied Saxon armies. The player's own castle may be stormed. If the player wisely left behind a number of soldiers, he may stand a chance of protecting his home. While being stormed, the player controls a crossbow that slides back and forth across the bottom of the display, shooting soldiers off the ramparts above.

The player tries to crush all the Norman castles to become king.

The menu format gives you room to take the game in many different directions from a head-to-head joust to storming a castle.

Along the way, the player may be given the opportunity to save a damsel in distress. Becoming good at this game requires a lot of patience and persistence. Unlike the *Zelda* series of games, this adventure has no built-in save option. All leadership and wealth accrued is gone when the NES is shut off.

Defender of the Crown demonstrates some pretty splashy graphics, but, obviously, it can't compare with the exquisite art in the original Amiga version. It was the art, not playability, that sold the original product. Unfortunately, the NES version shows no improvements in either area. It makes the player feel more like a spectator than active participant, certainly not a key feature for a video game. All of the interactions require carefully timed responses, instead of the quick, precise movements used in most other games. The game's challenge is in learning these timing sequences. Only then does the adventure begin to come to life and captivate the imagination.

—**Matthew J. W. Ratcliff**

Ultra, 900 Deerfield Parkway,
Buffalo Grove, IL 60089; (312) 215-5100.

Graphics That Will Kill You.

FOUR MEGA POWER
GALAXY FORCE

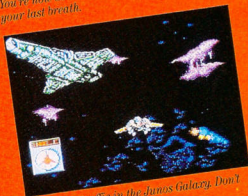DISTRIBUTED BY ACTIVISION

FOR PLAY ON THE SEGA MASTER SYSTEM

CAUTION:
FOUR MEGA POWER.

Not double, not triple, but four times the playing power of a regular cartridge. You get the hottest space combat, the baddest explosions, and the coolest sounds ever!
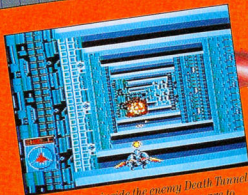
Gut check time inside the enemy Death Tunnel. You're now as close to victory as you are to your last breath.

Rush hour traffic in the Junes Galaxy. Don't honk, just shoot.

The friendly folks on the Fire Planet love a barbecue. You're on tonight's menu as a Galactic Grilled Special.

See your local retailer or call
1-800-227-6900 to order.

ACTIVISION

The Adventures of Bayou Billy

Konami

For the Nintendo Entertainment System ($43.95)

Annabelle Bon Vivant, a delectable Southern sweetheart if ever there was one, has just been abducted by Godfather Gordon, the gangster king of Bourbon Street. Old Gordo, fed up with Bayou Billy's interference in his affairs, figured that snatching Billy's girl was the best way to slow him down.

But Gordon obviously doesn't know Bayou Billy very well. The kidnapping of Annabelle has only made Billy more determined to get rid of Gordon and his gang once and for all. Billy won't rest until Godfather Gordon is pushing up swamp grass from the bottom of the bayou.

And so the battle begins.

On your stroll through the bayou to save your lady, Annabelle, you'll face some of Godfather Gordon's local nasties.

The Adventures of Bayou Billy, a new game from Konami for your Nintendo Entertainment System, is actually several games in one. Though most of Bayou Billy is comprised of hand-to-hand fighting scenes, some levels have you driving a swamp jeep down a danger-ridden roadway or picking off baddies with your light gun.

There are nine levels of play. In the first, you must take on Gordo's henchman in hand-to-hand combat. Utilizing punches, kicks and jump-kicks, you must defeat the thugs before they turn you into muskrat feed. As you fight, your enemies will drop useful items, such as weapons, equipment or "raw meat" (retch), which will restore Bayou Billy's life meter. (Or should that be "meater"?)

As if bloodthirsty thugs are not enough, Billy must also wade through alligator-infested swamps as he makes his way toward his sweetheart, Annabelle. The gators, of course, are delighted with the chance to take a chunk out of Billy's bod, and he must fight valiantly to escape their crushing jaws.

In the car-race levels, you, as Billy, must navigate a swamp jeep down treacherous roads, avoiding swamp stompers (jeeps) that come at you from the opposite direction, as well as planes and helicopters that drop bombs from above. Keeping your vehicle on the road is challenge enough, but you'll also have to man your rifle in order to blast the enemies from your path.

The light-gun levels add even more variety to The Adventures of Bayou Billy. Here you turn in your controller pad for the Zapper gun and blast Gordo's baddies as they creep from behind trees or run through the swamps. Besides the thugs, targets that allow you to stock up on life or bullets will also appear.

For those without the Zapper light gun, the game provides a selection that allows you to use the standard controller pad for the gun-shooting sequences. When the game is set for this option, you control a crosshair on the screen with the arrow pad and fire whenever the crosshair is over your target. Although this method is clumsier than using the light gun, it is a workable alternative.

You'd better watch out because the swamp is filled with alligators, gun-toting thugs and tons of danger.

How does Billy stack up to the competition? Besides the unusual combination of fighting, road-race and target-shooting games, The Adventures of Bayou Billy offers nothing new. The hand-to-hand fighting sequences are typical and unexciting; the car-racing levels have been done better elsewhere; and the target-shooting is still more of the same old thing. The game does sport some interesting graphics and some dynamite music, but those things alone are not enough to make it a best-seller.

Some games are immediately appealing, while other games grow on you after a few hours of play. Bayou Billy did neither for this reviewer. If you're interested in obtaining yet another karate-type fighting contest, you might be interested in The Adventures of Bayou Billy, but for the most part, this swamp tour is uninspired.

—Clayton Walnum

Konami, 900 Deerfield Parkway, Buffalo Grove, IL 60089; (312) 215-5100.

Demon Sword

Taito

For the Nintendo Entertainment System ($42.99)

Hack-and-slash games come in all shapes and sizes these days, and it really takes something remarkable to make me sit up and take notice. Demon Sword is one of those games with that special quality. It has plenty of action, a certain amount of strategy and one of the most satisfying game-play systems I've seen in a long time.

To begin, you play Victar, a noble fighter with a broken blade. Legend has it that the blade can be reforged to defeat the evil Dark Fiend who rules the land with his "cruel and terrifying magic." Okay, the plot won't win any awards, but it is sufficient to get you started.

Demon Sword consists of three worlds (each containing two stages) and a final battle against the Dark Fiend's Chamberlain. Win that one and the Dark Fiend is history. However, each stage features a guardian creature of increasing power. Also in each stage are special "mystic gates." These gates are most often guarded by fearsome creatures, but defeating them can gain you powerful magic

Will they call you "Tinkerbell" or "Deadeye"?

Take on the best pilots in one-on-one dogfights at the Naval Fighter Weapons School to find out who is the real top gun.

You don't know what a good chewing out is until you've ticked off Admiral Hawk. Wipe that smirk off your face, Lieutenant.

Find out, on the toughest fighter training ground in the world. In *F-14 TOMCAT.*

Master the fine points of aerial combat. Move up the ranks in your tours of duty aboard the carrier *U.S.S. Nimitz.* And test your dogfighting skills against the most elite pilots in the world.

F-14 TOMCAT features 80 randomly assigned missions in five theaters. 1st-person in-the-cockpit realism. And feel-it-in-your-gut aerial maneuvers. It's the best-selling combat flight simulator on the Commodore today.

Think you're a "Top Gun"? Then prove it, hot-shot, in *F-14 TOMCAT.*

"F-14 TOMCAT is one of the best combat flight simulators for the 64. Graphics, sound, and action are excellent, and the framework of a career scenario adds a sense of realism and purpose."
— **Compute's Gazette**

"F-14 gives you a shot at being one of America's most elite fighter pilots."
— **Computer Gaming World**

ActiVision.

See your local retailer, or call 1-800-227-6900 to order.

© 1989 ACTIVISION. All brand names and trademarks are the property of their respective holders.

CIRCLE #130 ON READER SERVICE CARD.

weapons to use in your quest. Sometimes, if you're lucky, a golden Buddha will appear to hand you a special weapon or increase your power.

There's an element of role-playing in this game, though it's predominantly an arcade-action theme. You start out weak and ineffective, but you can swing your broken sword or toss shurikens (throwing stars, of which you have an inexhaustible supply). However, the stars are only half as effective as your sword—broken though it is. As you increase in power, both the stars and the sword become more effective.

Even with a broken sword, Victar can hold his own against the myriad attackers he'll face in Taito's Demon Sword.

During his battle, Victar must also gain life energy. Black spheres will increase the amount of life energy Victar can have. Red spheres are stored up to recharge that energy when Victar is wounded and are obtained by defeating the endless creatures that attack you at each stage. In addition to the spheres, you can gain keys to the mystic gates, as well as other objects that give you special abilities, like throwing four shurikens at once or splitting yourself into three warriors for added effectiveness. It's possible to hang around for a while and collect spheres and other useful objects, but loafing in one spot too long can be a mistake because it leaves you a sitting duck. Also, it is a good idea to master the technique of fighting the mystic gate guardians without getting wiped out. The weapons you gain are important, but you have to learn how to handle the guardians without taking damage.

When you defeat certain enemies, a weapon icon will appear to boost your powers and let you forge on to other levels.

The graphics throughout the game are excellent, and each stage has its own identity. For instance, the temple graveyard and Bone Mountain feature creepy, sinister graphics and lots of vertical jumping and climbing, whereas the bamboo forest, Cedar Mountain and Fire Mountain combine climbing with running on the horizontal plane.

As great as the graphics are and as challenging as the action is, it's the way you can jump and fly through the air that is most impressive to me. Also, all stages have vertical and horizontal components, which enhances the contest; Demon Sword always gives you that extra dimension.

Most players will also appreciate how active Demon Sword gets; an aggressive style works well in most situations. You can't get too cocky because some of the later enemies can wipe you out in a snap if you don't use your brain power. You can rush up and slash the first few bosses to death, but the later ones will

welcome your charge with powerful waves of magic. Unfortunately, there is no game-save feature here, so once you run out of lives, you'll have to start over. I know I did before I figured out each stage and went fully prepared into each battle.

Demon Sword is a lot of fun to play. It is challenging and full of fast action, and it features entertaining, animated scenes between stages. Unfortunately, it is fairly easy to beat with a little perseverance and skill, and once you've beaten it, you may not be able to find a reason to try again. On the other hand, you may just play Demon Sword for the sense of power you get as you soar over the treetops. . . .

—Rusel DeMaria

Taito Software Inc., 267 West Esplanade, North Vancouver, B.C. Canada V7M 1A5; (604) 984-3344.

Keith Courage in Alpha Zones
NEC

For the TurboGrafx-16 (comes with system purchase)

If you purchase one of NEC's new TurboGrafx-16 game machines, it's likely that you'll play Keith Courage in Alpha Zones before anything else. It's a good choice for bundling in with the system. It features arcade-like action, challenge and spectacular graphics—all crammed, amazingly enough, on one of NEC's wafer-thin TurboChips.

As you wander from zone to zone, you'll most likely sustain some injuries, which Nurse Nancy can patch up for you.


Keith Courage is the story of a boy whose legacy is to be the savior of his world. Armed with the nearly invincible nova suit, he battles endless monsters and creatures of evil who have invaded his peaceful planet from the planet B.A.D. (Beastly Alien Dudes). Keith must travel through seven dimensions—the rock zone, fire zone, glacier zone, toxic zone, reverse zone, magic zone and, finally, the robo zone. In the robo zone, he'll meet his final challenge, the almighty Titan Warrior, and if he defeats this ultimate dude, he saves the planet.

Each zone in this game features an overworld and an underworld. In the overworld, you fight easy creatures, gaining money as you defeat them. The money is used to purchase special bolt bombs, more powerful swords (Keith's main weapon) and healing from Nurse Nancy. In the underworld, you must run, jump and fight your way to the underground cavern of the current level's boss character, then defeat him. You will be transported automatically to the next zone if you win.

The real challenge of this game takes place in the underworld. Here, you meet a variety of powerful monsters. Among the most interesting are the walking revolvers—beautifully drawn and strongly

Welcome to the Fight Palace.
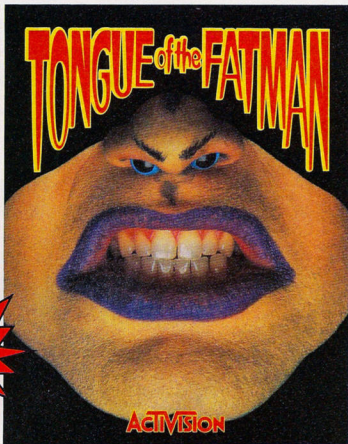
In Stereo —
Where Available —
supports Roland MT-32,
Adlib, Tandy DAC, and
PC Speaker

"Humans come apart so easily in the pit. Especially when you pull on their arms." —Mondu the Fat

Two creatures in a pit, strange moves, magical weapons, wild betting and your host, Mondu the Fat. Pick your lifeform, load up on bio-weapons, then punish or perish in the most outrageous game ever created — *Tongue of the Fatman.*

Pick Your Lifeform
Control and combat a variety of aliens, each with different moves and special animations. Ten beings to master.

Visit Dr. Kadaver
The *Multimax 764 Steroids* pumped you up. *Grasfur Slug Eggs* might slow the *Cryoplast* long enough to nail him.

ACTIVISION

See your local retailer, or call 1-800-227-6900 to order.

reminiscent of something from the Beatles' *Yellow Submarine* movie. Other powerful yet amusing characters include the card-throwing Boss Chairman, whose cards do a lot of damage, and a walking head named Stitch, whose sickle punch would make Mike Tyson proud. Minor obstacles include the crypt creatures and endless flying skulls.

The challenge of the underworld is further intensified by the addition of disappearing platforms, moving walkways and blind jumps that may land you on deadly spikes. Though you can continue the game as often as you want, you lose half your money and half your bombs each time you continue, and your life hearts are reduced to three (though you may gain up to eight hearts before the game is through). Life hearts are easy to recharge in the underworld, however, if you know when to stand and fight and when to run.

It's important for you to gather as much money as you can on your journey, so you can purchase better weapons and other necessities.

The main challenge of this game is to find the route to the underground cavern and figure out how to defeat the boss character found there. In the early levels, this is fairly easy to accomplish. However, in later levels the challenges mount, and the underground becomes more complex and filled with traps and tricks. Defeating the early bosses is fairly easy with sword alone; however, later bosses won't go down so easily, and you'll need bombs to defeat them.

The use of bombs is interesting compared to similar games: You can buy up to 99 of them, but their power varies. Sometimes when you kill a character in the underworld, a number will remain on the screen. Grab this number to alter the power of your bombs; five is the most powerful.

Playing *Keith Courage* is fairly standard. One button makes your character jump; the other swings the sword. Pressing up on the control pad and pressing the sword button fires bombs. Unfortunately, in the heat of battle, you can often fire precious bombs by mistake, and you'll need to hold onto them to defeat some of the higher level bosses.

The graphics in this game are spectacular. The creatures are detailed and very colorful, and the background is equally well drawn. Younger players will especially delight when Keith dons his nova suit and transforms into the warrior for the underground phases.

Because this game accompanies the TurboGrafx-16 system, it seems fair to compare it to *Super Mario Bros.*, which accompanies the NES. What do you get with your basic investment? Graphically, *Keith Courage* is clearly superior in every way. However, for game play, *Super Mario Bros.* is more varied. Even though the zones in *Keith Courage* become more and more difficult, they are all basically the same. In *Super Mario Bros.*, there are secrets all over, in addition to new places to explore. By comparison, *Keith Courage* is a one-pointed game that will appeal to those with the perseverance and eye-hand coordination to succeed. However, only time will tell if the TurboGrafx-16 will have games programmed with the variety and depth as *Mario Bros.* or *Legend of Zelda* (to name a couple).

—**Rusel DeMaria**

NEC Home Electronics, 1255 Michael Dr., Wood Dale, IL 60191-1094; (312) 860-9500.

Strider
Capcom

For the Nintendo Entertainment System ($49.99)

At first glance, this latest offering from Capcom looks like yet another one of their run-of-the-mill, side-view action-adventure games. And basically that's what *Strider* is. With this minor negative aside, here's the good news: *Strider* is probably one of the best run-of-the-mill, side-view action-adventure games to come out for the NES. It has many of the little—but nice—features the others lack: great graphics, great sound, great, well-paced action (rarely will you encounter a lull while playing *Strider*) and, to top all this "greatness" off, a great adventure challenge that isn't a cinch to solve, but won't frustrate the average NES gamer.

As Hiryu, you must take the talents your secret group has taught you to save a friend — and, ultimately, the planet — from certain disaster.

So what's the scenario of this great game? To be quite honest, I'm not sure. The story background described in the instruction manual is rather ambiguous, giving the impression that things, contentwise, were lost in the translation from Japanese to English (there are a few spelling mistakes, too). Apparently, your initial mission is to rescue a friend, but—lo and behold!—you discover some sort of a sinister plan by an evil organization bent on taking over the world. Of course, being the nice guy you are, you decide to save the world. After all, you're Hiryu, a "Super-A grade" member of the Striders, the strongest secret-maneuvers group in the world!

Sarcasm out of the way, the game starts from blue dragon headquarters (it's this orbiting space station that looks like a blue dragon, hence the name). Here you select from three functions: transfer, analyze and password. Password allows you to enter a 12-digit password from a previous game so that you can start from where you originally left off. Analyze is used for reading any one of the six message disks that you'll be gathering while exploring the many screens of *Strider*. Transfer starts the action. Depending on how far you've already progressed in game play, you can transport your Strider character to any one of several geographic locations on Earth.

You move and jump your Strider throughout these multi-level screens, armed only with the standard issue given to all Striders, a cipher (a kind of high-tech sword) to slice away at your enemies. Later on, you're given other weapons such as a plasma arrow and special abilities like being able to slide under your enemies. Also, there are a variety of power tricks that your Strider will attain, allowing you to select different weapons, special acrobatic abilities and to restore your Strider's energy meter.

Message disks, which contain important information giving you clues on how to complete your mission, are obtained when you kill certain enemies or talk to a character. Keys are hidden throughout the screens and must be used to unlock doors that lead to other

Bustin' Makes You Feel Good!
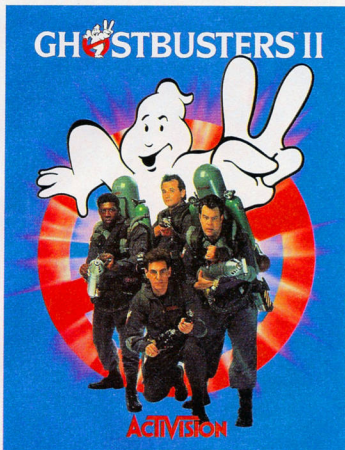
Who ya gonna call? The Ghostbusters—again.
Clear the courtroom of ghouls and get back in business.
Bust your pals out of the insane asylum. Trap ghosts around
New York City, then turn the slime to your side and march
the Statue of Liberty across town to the Museum. If you've
got the slimeblower, wasting the evil Vigo should be easy.

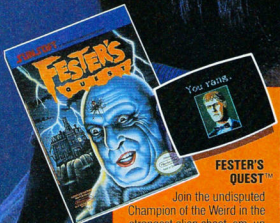Get Ready to Believe Them.

Launch Miss Liberty on a rescue mission.

ACTIVISION

TAKE ON THE TITLES THAT

FESTER'S QUEST™

Join the undisputed Champion of the Weird in the strangest alien shoot-em-up you've ever seen!

PLATOON™

This isn't Kid stuff! In fact, it just might be the most frighteningly real video game ever!

Want the most explosive titles in the history of video gaming? You got 'em! Sound effects that'll make the room rattle? Stand back! Graphics so huge, so fast-moving, so incredibly lifelike, you'll think your TV just might explode? Hold on to your joystick!

This is the world of Sunsoft, a world of video entertainment that's light years ahead of anything you've ever seen. So if you're up for the ultimate challenge, strap yourself in, and take a trip with the Titleholder!

SUNSOFT® THE TITLEHOLDER!

WILL BLOW YOU AWAY.

SPY HUNTER™
The Arcade Smash of the 80's is back, and no NES library is complete without it!

BATMAN™
Ready for the rematch? The CAPED CRUSADER™ returns to take up where the movie left off!

BLASTER MASTER™
Welcome to the subterranean masterpiece with the graphics power to blow your TV away!

Official Nintendo Seal of Quality™

CIRCLE #133 ON READER SERVICE CARD.

Hot News for Hot Shots!
Get the inside track on Sunsoft games in the **FREE** Sunsoft Game Time News.

Name _____ Age _____

Address _____

City _____ State _____ Zip _____

Mail to: Sunsoft, P.O. Box 2390, Libertyville, IL. 60198

rooms. Three pairs of boots have to be found as well. These essential pieces of footgear are needed in order to walk on water, go over floors that are flashing and slide under and kill enemies. Littered about the levels are energy capsules and attack-energy cylinders. These should be collected to maintain your life energy and attack-energy meters at maximum levels.

In Strider, *the attacks come from all sides, even from above, and all you start with is a high-tech sword to defend yourself.*

Despite having both a game concept and story scenario that has been well overdone and heard before, *Strider* is a very refreshing game. For some reason, it manages to come across like something new, which it obviously isn't. Playing it gave me a strange sense of nostalgia of the first time I tried out *Super Mario Bros.* on my brand-new NES. That was a time when a new game meant new challenges and new discoveries. I guess that's what makes *Strider* so appealing. It's based on that mysterious source which turns games like *Super Mario Bros.* into classics.

—Howard H. Wen

Capcom, 3303 Scott Blvd.,
Santa Clara, CA 95054; (408) 727-0400.

Thunder Force II

Sega

For the Sega Genesis ($60.00)

If you take a moment to look carefully at Sega's *Thunder Force II*, you'll see that the basic design is no different than half a million other video games. It's a scrolling shoot-'em-up in a similar vein as games like *Life Force*. You pilot a spaceship through

In Sega's Thunder Force II, *the action is mixed between an overhead perspective, such as this one, and a vertically scrolling view.*

various terrains, battle a slew of enemy creatures and acquire new weapons from capsules that you find along your trek.
Fortunately, that's where the comparison ends.

The first program of its kind to successfully integrate arcade style enjoyment with educational achievements!

Learning made fun
ARCADE FOOTBALL

FROM MAGISTRA™ EDUCATIONAL ENTERTAINMENT

Arcade Football® is a program that mixes the non-stop action of an arcade game with question and answer sets from various categories, ranging from science to history.

Designed for one or two players (the computer acts as the opponent for an individual player), it allows each player to choose from a list of educational topics at their individual grade level.

The degree of difficulty and the accuracy of the answer determines the result of the selected play.

Make learning fun for the whole family!

THE PATENTED MAGISTRA™ SYSTEM

With our special report card system your child's answers are saved on a database disk that can be mailed to us and evaluated by our patented expert system. A written report is then mailed to you, exploring strengths and weaknesses as well as recommendations for improvement.
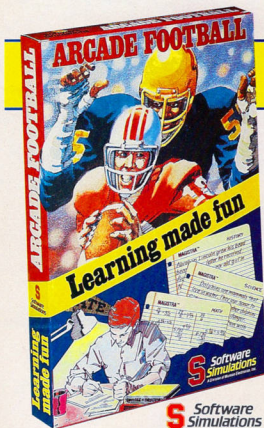
Software Simulations
A Division of Mindscape Electronics, Inc.
959 Main Street, Stratford, CT 06497

For more information on Learning Made Fun and Magistra Educational Entertainment, see your local dealer or call (203) 377-4339.

Will he make a bozo out of you?

FIENDISH FREDDY'S™

BIG TOP O' FUN
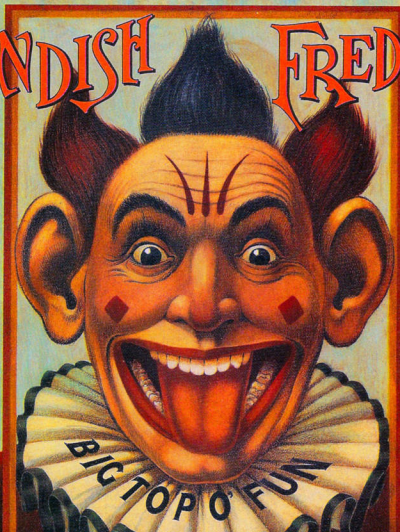
- Breakthrough animation • Digitized sound effects
- Original music • A cartoon on a disk!

M I N D S C A P E

Thanks to the added power that the Genesis console provides, Sega has made *Thunder Force II* into a unique, striking game and undoubtedly the best of the first releases for this new 16-bit machine. Simply admiring the title screen for a while tells you you're in for a treat.

The story—though it's only there to set the stage—revolves around the war recently rekindled between the Lone Star System and Nebula, your home territory. Reficul, the evil emperor of Lone, has docked his battleship on Nebula, and it's up to you, of course, to maneuver your craft, the *Thunder Force II*, underground in an effort to defeat Reficul.

With that out of the way, it's on to battle. The first thing that hits you about *Thunder Force II* is how realistic the surroundings look. The palette of pastel colors gave the designers the freedom to smooth out the blockiness normally associated with video-game graphics. Also, the background moves independently of the main graphics, which enhances the three-dimensional feel of the environment.

Thunder Force II is actually designed as two games in one. Each of the five levels, excluding the final battle, contains two stages: The odd-numbered stages are overhead perspectives and the even levels are vertically scrolling scenes. This layout tests your abilities on different fronts. Sega should also be commended for providing a configuration screen. You can customize the game for how many ships you have, indicate normal or rapid firing and even get a playback of the various sounds and music in the game. It's also possible to practice some of the stages to smooth over any rough spots and become more proficient.

Along the way, when you shoot certain enemy creatures, a letter will appear. Running over it will build up your weapons arsenal—lasers, five-way firing, guided missiles, etc. As a further enhancement, each weapon received is announced by a digitized voice. The Genesis' cartridges are full of realistic sounds like screams and spo-ken phrases (though anyone who can tell what is said at the beginning of *Thunder Force II* should win a prize). These little details are what make this game a real charmer.

Speaking of small details, the music and sounds are sharp, especially if you listen through headphones or pipe the audio out through a stereo system. You may upset your family by rattling the windows, but the effect is worth it.

Your ship, the Thunder Force II, will face countless dangers, all rendered beautifully with both colored graphics and booming sound effects.

I'll admit that *Thunder Force II* isn't perfect; for instance, the ship is always moving in the overhead game, making it hard to maneuver safely in tight spots. Just before the main ship appears in the vertical levels, the game awkwardly freezes up for a few seconds. Just the same, there is a lot of entertainment in this cartridge. Most of all, it is a great demonstration of what the Genesis is capable of. Let's hope that Sega pushes for more games of this caliber in future releases.

—Andy Eddy

Sega of America, 573 Forbes Blvd., South San Francisco, CA 94080; (415) 742-9300, (800) USA-SEGA.
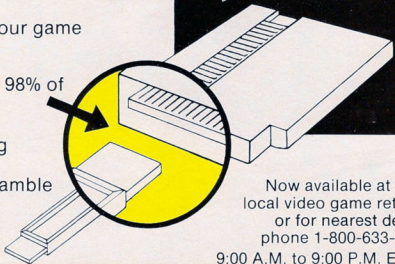
ALERT!
EMBASSY OFFICIALS HELD

HOSTAGE

- Command a six person strike force
- Run, rappel from the roof, search...destroy
- Find the hostages; get them out safely

This rescue must be executed with surgical precision. It requires nerves of steel, strategy, deadly aim.

Three difficulty levels—each with five mission time limits—add excitement and playability. TV quality graphics insure ultra realism.

Ripped straight from today's headlines— it's the world's deadliest game!

M I N D S C A P E

PEDAL

METAL to the

Car Contests for Backseat Drivers

by Arnie Katz

Americans love cars. A few jeers greeted the first "horseless carriages," but the romance of the open road developed quickly. Today, just about everyone who isn't actually roaring down a highway is riveted to a video or computer system, driving everything from a dune buggy to a Ferrari.

Car contests appeared relatively late compared to other types of games. The limitations of early hardware made it hard to generate the rapidly scrolling graphics of road movement. Video-game makers tried overhead perspective on several cartridges for the Atari 2600 and Odyssey2 machines, but these games were entirely forgettable.

It soon became clear that players preferred first-person perspective to the top-down view. *Night Driver* (Atari) finessed around the graphic problem by turning out the lights. The gamer saw little more than glowing road markers while driving down the twisting road. It did well in the arcades, so Atari followed up with a cartridge for the 2600.

California Dreams' *Hot Rod* brings you back in time and gives you a choice of 25 roadsters to customize, so you can cruise in style.
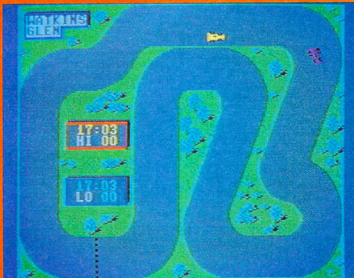
'88 Lamborghini Countach 5000S and the '89 Corvette ZR1. In *California Challenge*, one or two computerists compete in a seven-part road race along the picturesque coast of California.

Out Run (Sega for most computers and the Sega Master System) is the biggest competition to *Test Drive* for the current title of top computer-driving game. It was a bonanza in the arcades, and editions for the Sega console and various home computers have enjoyed outstanding sales.

The original game put the player slightly behind the car, as in *Pole Position*, but much closer to road level. This ground-hugging view intensifies the sense of speed as the car roars up and down the hills. The home versions of *Out Run* can't equal the coin-op's roller coaster effect, but it's a praiseworthy attempt.

Horizontal stripes on the roadbed partially compensate for the slower, omni-directional scrolling routines on some home machines. The intricately detailed car, complete with a cute couple in the front seat, looks as good cornering as it does on the straightaways.

Each segment of this five-part course is run against a countdown clock at the top of the screen. Completing a section before time runs out earns a bonus score for any surplus seconds. Between legs, a summary screen dis-

Scott Orr's *Baja Buggy*, released by his Gamestar label for the Atari 800, gave automobile-loving video gamers something more intriguing to watch than the shadows of night. *Pole Position* (Atari) hit the arcades within a couple of months of the debut of *Baja Buggy*. Its huge success, as both a coin-op and a cartridge, cemented the popularity of driving contests in the video- and computer-entertainment field.

Drive, They Said

Test Drive (Accolade for most computers) was an overnight sensation when it was released toward the end of 1987. Unlike the myriad car games that preceded it, its first-person screen displays the dashboard and gear box as well as the winding mountain road ahead. The Distinctive Software programming group embellished this unusual behind-the-wheel perspective by actually showing the drivers working the gearshift from position to position.

Test Drive is one automotive simulation that treats driving as a subtle skill. Most arcade-style driving games permit the player to keep the vehicle at top speed from start to finish. Trying that in *Test Drive* earns a ticket from the Highway Patrol at best or a brief glimpse of the cracked windshield as it tumbles over the cliff.

It takes good reflexes and persistence to power to the top of the Rock. The course is divided into segments, though there is no util-

ity for saving a partially completed run. The player has an enviable selection of classic sports cars to challenge the mountain, each precisely modeled after the real-life racing machines.

The Duel: Test Drive II (Accolade for most computers) pits a Ferrari F40 against a Porsche 959 in a head-to-head racing simulation patterned on the cockpit-oriented *Test Drive*. Of course, the computer will drive either the car against the computerist if no human opponent is available.

Accolade has also released two disks which add cars and courses to the basic *The Duel: Test Drive II*. *The Supercars* gives racers a crack at the latest machines such as the

Top left: Accolade's *California Challenge*.
Above: Epyx's *4 x 4 Off-Road Racing*.
Left: Mediagenic's *On-Track Racing*.

plays the car's progress toward the finish line.

The classic games often retain their appeal despite the passage of years, and *Pole Position II* (Mindscape for IBM PC and Atari 7800) is certainly a time-tested favorite. Fortunately, it has transferred very well from the amusement center to the home gaming screen.

As in the celebrated coin-op, a qualifying heat precedes the actual race. The faster the time, the better the pole position. Once the starter gives the signal, it takes fast reactions to thread a safe path through the heavy traffic of rival Formula 1 race cars.

Rad Racer (Nintendo for NES) includes eight courses from across the United States, including a difficult Los Angeles night run. This first-person perspective video game also provides an extensive range of cars that vary widely in performance characteristics.

Six different courses comprise the American Cross Country Prestige Cars Race in *Crazy Cars* (Titus Software for IBM PC, Amiga and Commodore 64). The solitary driver begins in Florida with a Mercedes 560. Completing a course before time runs out earns the driver better cars, including the Porsche 911, Lamborghini Countach or even a Ferrari GTO.

Each section of the course is raced against the time clock located at the top of the screen. Finishing before it reaches zero allows the computerist to progress to the next leg. Collisions with other cars and running off the road on turns cause the lengthiest delays.

Olivier Corviole's graphics are a little unusual, more impressionistic than realistic. The playfield shows a dashboard along the bottom of the screen, but the player still views in modified first-person perspective from a point slightly behind the vehicle. The drawings of the automobiles are exquisitely detailed, and the images hold together even during hairpin turns, often a problem with other driving games.

Crossing four states to complete a perilous mission is the goal in the newly released *F40 Pursuit* (Titus for IBM PC, Amiga, Atari ST and Commodore 64). The player drives a Ferrari F40 at speeds up to 200 miles per hour to elude hostile police and avoid standard road dangers.

The graphics, especially the other autos,

look better than in the same publisher's *Crazy Cars*. The road fills the whole screen without the obstruction of a decorative dashboard at the bottom of the screen. Crashes that spin the F40 in a full circle are also a visual milestone.

Turbo Champion (Mastertronics for IBM PC) is a British-designed arcade racing contest that offers good value in the budget software category. Eight different race tracks, all packed with the expected assortment of oil slicks and dangerous debris, are included on the disk. And when the computerist gets tired of them, the Course Designer module can generate an unlimited number of new ones.

R.C. Pro-Am (Nintendo for NES), though a little out of the category, is sure to amuse many computer racers. The player steers a remote-control car around an extensive track shown in angled overhead perspective. The car can acquire enhanced powers by running over the bonus objects strewn all over the road. This dollop of adventure makes *R.C. Pro-Am* an exciting play-experience.

Leaving the Road Behind

Piles of rocks, wooden barriers and light poles are among the hazards that test steering ability in *Speed Buggy* (Data East for Amiga and Commodore 64). The player gets behind the wheel of an off-road vehicle, displayed in modified first-person perspective, and duels the clock on any of five tortuous courses.

Top left and above: Accolade's *Grand Prix Circuit*. Left: Atari's *Pole Position*.

PEDAL METAL to the

Below: Accolade's *Test Drive.*
Bottom right: Nintendo's *R.C. Pro-Am.*
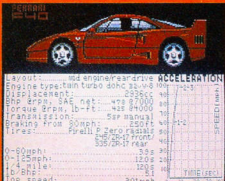
If you want action, *Speed Buggy* doesn't skimp on the jouncing and bouncing. Bonus flags and gates build the score, but juicy prizes can lure the unwary into a succession of tight scrapes. The lively artwork balances varied scenery with excellent animation of the car.

Although *Speed Buggy* has strong sales in Europe, it has not done well in the U.S. so far. The Commodore edition, released first, did not come up to American software standards in graphics or play action.

Don't hold the defects of the C-64 disk against the new Amiga version, though. Britain's Elite Systems has translated the original coin-op into a playable and attractive arcade contest. It still doesn't push the hardware to its limits, but the Amiga *Speed Buggy* is a spirited treatment of off-road racing.

Epyx's *4 × 4 Off-Road Racing* (IBM PC, Amiga and Commodore 64) has somewhat more depth than pure-action titles like *Speed Buggy.* Although the "beginner" setting lets players boot and boogie, veteran drivers pick a course, select a car and customize it with handy items like an extra gas tank, a winch or a camper body.

4 × 4 Off-Road Racing features four obstacle-strewn courses: Baja, Death Valley, Georgia and Michigan. Four vehicles—the Stormtrooper, Tarantula, Highlander and Katana—are rated for power, weight, gas mileage, endurance, ease of repair, payload with cap and fuel capacity. These factors strongly affect the race. A heavier truck, like the Stormtrooper, burns gas faster, but it really handles bumps from rocks, loose tires, competing racers and other hazards.

The driver then visits auto parts row to customize his vehicle with gear like deluxe tires, winches, extra-capacity fuel tanks and caps. Drivers who slam through other races at top speed are in for a shock. High speed is important, but it increases collision damage and wastes fuel.

Chase the Checkered Flag

Many driving games are races, at least nominally, but only a few simulate the total environment of professional auto racing. *Pitstop* (Epyx, though it's no longer available) was the first home game to add touches like roadside stops for repairs to the basic driving

scenario.

Pitstop's sequel, *Pitstop II* (Epyx for IBM PC, Apple II, Atari 800 and Commodore 64), is a refinement of the original design with one major addition: head-to-head competition capability. The horizontally split screen shows each driver a first-person view of the action.

Richard Petty and 18 other top pro drivers won't give the computerist a breather in *Tailadega* (Cosmi for Commodore 64). As in *Pole Position*, the player races in a qualifying event to earn the best possible starting position. However, it includes elements, like pitstops and variable road conditions, not found in other games.

A more comprehensive simulation of bigtime racing is *Ferrari Formula 1* (Electronic Arts for most computers). The player customizes a Ferrari F1/86 and runs it on any of the 16 grand-prix circuit tracks against the world's top drivers.

After entering a few races, many computdrivers will discover that the customizing process is virtually a game-within-a-game. The player can tinker with the fuel mixture and gear ratios, dump in a new engine or change the suspension. There's even a Ferrari test track to check out a new car before putting it into pro competition.

Five levels of skill keep Distinctive Software's *Grand Prix Circuit* (Accolade for IBM PC, Amiga and Commodore 64) challenging much longer than usual. At the higher levels, it takes more skill to brake and corner, and problems like spinouts and blown engines become more frequent.

In this game from the same design team

ACTION!

Slick up your joystick it's hot!

TITUS™

20432 CORISCO STREET,
CHATSWORTH CA 91311
818-709-3693

DARK CENTURY

YOU CONTROL THE GREATEST HIGH-TECH TANKS IN THE WORLD. YOU ARE ON A PRISON PLANET TRYING TO ARREST SOME ESCAPED CONVICTS. PROGRAM AND LEAD YOUR TEAM OF TANKS TO TRICK YOUR OPPONENT! RAY TRACED 3D UNIVERSE, MULTITASKING, ONE OR TWO PLAYERS ARE THE FEATURES OF THIS GAME.

KNIGHT FORCE

YOU ARE THE SWORD MASTER, OF MAGIC GRAPHICS. LEAD LIBERATE THE PRINCESS

DEFENDER OF BELLOTH REALM. QUEST THROUGH FIFTEEN LEVELS AND FIVE ERAS, YOUR ENCHANTED POWERFUL WEAPONS AND SPOIL THE MALEVOLENT TRAPS, TO TANYA FROM THE CLAWS OF RED SABAT THE SORCERER.

WILD STREETS

A SUPERCOP AND A BLACK PANTHER TEAM TOGETHER IN A HIGH RISK MISSION. "A TOP CIA AGENT HAS BEEN KIDNAPPED, FIND HIM! YOU KNOW THAT ACTION AND FIGHTING IS INEVITABLE." YOU'LL HAVE TO VISIT THE CITY SLUMS TO FIND HIM AND PROTECT YOU BOTH FROM MOBSTERS, PUNKS AND OTHER RIFF RAFFS.
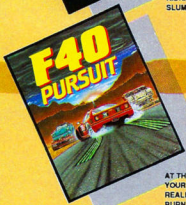
F40 PURSUIT

AT THE WHEEL OF YOUR FABULOUS FERRARI F40, YOU'RE RACING AGAINST TIME AT 200 MILES PER HOUR. PLAN YOUR ROUTE, BUT BEWARE OF POLICE THAT WILL TRY TO STOP YOU IN YOUR MISSION. 360 DEGREE SPINS, AND REALISTIC 3D ROAD JUNCTIONS WILL MAKE YOU SENSE THE THRILL OF SPEED. DON'T JUST TAKE OUR WORD, BURN SOME RUBBER.

OFF SHORE WARRIOR

YOU ARE AN OFF SHORE WARRIOR AND YOUR FIRST ARENA, FULL OF FANS, IS WAITING FOR YOU. STRUGGLE AGAINST ROCKS, WAVES AND OPPONENTS IN A DEADLY GAME. ONLY FEW CAN LEAVE ALIVE. DO IT OR DIE!!!

FIRE AND FORGET

FACE THREE LEVELS OF SIX CONFLICTS, FROM SPORADIC WARFARE TO TOTAL WAR. NEVER LOOK BACK! IT COULD BE YOUR LAST MISSION. ONE OR TWO WARRIORS CAN TEAM UP.

CRAZY CARS

YOU ARE RACING FOUR OF THE MOST PRESTIGIOUS CARS IN THE WORLD'S CRAZIEST RACE THROUGHOUT THE UNITED STATES. PREPARE TO START, READY? GO!!!

TITAN

MAKE YOUR WAY THROUGH THIS STRATEGIC PUZZLE OF EIGHTY WORLDS WITH YOUR MAGNETIC CONTROL UNIT. BUT BE CAREFULL, THE ULTRA-FAST SCROLLING HAS ALREADY CAUSED SOME MENTAL BREAKDOWNS.

CIRCLE #139 ON READER SERVICE CARD.

© TITUS 1989. TITUS AND THE TITUS LOGO ARE REGISTERED TRADEMARKS OF TITUS SOFTWARE CORP.

design that offers a distinct change-of-pace from the usual driving-game play mechanic.

The Checkered Flag

There are already more driving games than any article could possibly cover. That won't stop publishers from rolling additional ones off the software assembly line in 1990. As long as the real car makers manufacture glamorous new machines, new programs will put computerists behind the wheel.

Future driving games will continue the trend toward greater depth and complexity. Games like *David Wolf Secret Agent* (Dynamix for IBM PC) and *Beverly Hills Cop* (Box Office for most computers) have extensive driving segments, but the automotive action is placed within a larger context. So-called "driving adventures" could become a hot craze by the end of next year. ▲

that created *Test Drive*, the armchair speed demon drives the eight world-famous tracks. The computerist must join one of the three racing teams and earn a starting berth with a good showing in the qualifying run.

Those who complain that track racing is visually dull can wake up those jaded optic nerves with *Vette!* (Spectrum Holobyte for IBM PC, Amiga, Atari ST, Commodore 64 and Macintosh). It's a street-racing simulation that presents four courses in a beautiful San Francisco setting.

The graphics sharply separate *Vette!* from all other racing games. Rapidly scrolling, polygon-fill graphics let drivers motor through the streets of the West Coast metropolis and see many of the famous sights. This technology, developed for Spectrum's *Falcon* flight simulator, assures that players won't confuse *Vette!* with any other racing program.

Hot Rod (California Dreams for IBM PC, Amiga and Commodore 64) is a nostalgia-drenched salute to colorful, customized street machines like the '32 Ford Roadster or the '63 Chevrolet Corvette. *Hot Rod* evokes the total experience of being a hot rodder with a multi-module program that includes all major aspects of motor mania.

The player starts with any of 25 vintage cars and then adds from the 35 available performance parts. When the rod is ready, the player can cruise over to Bob's, where 15 rivals wait to challenge for the title of "King of the Road."

The computerist can customize the outside of the car as well as the inside. There is a

choice of five paint jobs, plus special trim. California Dreams plans to market extra disks with more cars and locales to keep *Hot Rod* fresh.

Lombard RAC Rally (Top Ten Software for IBM PC, Amiga and Atari ST) spotlights a seldom-simulated type of racing, the road rally. The player, driving a Group A Ford Sierra RS Cosworth, braves all kinds of auto-destroying terrain in a re-creation of this English rally. Detailed cockpit graphics show the hands of the driver and navigator as they manipulate the vehicle's controls and monitor its progress through the course.

Another feature of *Lombard RAC Rally* is the workshop. The readouts of important information and an excellent schematic of the car help make it easy for the computerist to repair and upgrade it. It is a well-executed

Above and top right: Electronic Arts' *Ferrari Formula One*.
Left: Sega's *Out Run*.

Thrill to the Feel of FlightStick™!

Matchless in Performance and Durability.

Legendary designer Chuck Hayes scores again with FlightStick™ the most durable and superior joystick in the market today, outlasting the competition up to 100 times.

The contour pistol grip, tactile trigger and fire buttons, total 360 degree cursor control ... Advanced features like these reduce fatigue, improve response time and realistically simulate actual flying.

Added throttle control for IBM models gives you better speed control for Microsoft's™ Flight Simulator™.

FlightStick can be used with Computer Aided Design, graphics applications and any interactive games.

FlightStick is the matchless result of 25 years' experience in joystick design and manufacturing.

See your dealer today.

Suggested Retail:
$74.95 – Apple IIE/IIC/IIGS
$79.95 – IBM PC/XT/AT/PS2
$74.95 – Tandy 1000
For credit card orders call:
US 1-800-624-5804; CA 1-800-262-2004
For more information call : (619) 744-8546

CH products™

A Joystick Technologies Inc., Company

1225 Stone Drive
San Marcos, CA 92069

Are You Quick Enough For Mappy-Land?

Mappy, the popular arcade character is back!

Finally, you can take Mappy, the arcade smash-hit, home for play on your Nintendo System® Introducing Mappy-Land,™ the game where Mappy the policeman takes you on four adventures through eight different stages.

Fight your way past enemy Mukies. Search for secret entrances and exits.

Learn to use fancy weapons. Win big bonus points. But you'll have to be lightning quick to master this action-packed adventure!

Don't miss these other adventures from Taxan.®

Taxan is a ® of Taxan USA Corporation. Nintendo and Nintendo Entertainment Systems are ® of Nintendo of America, Inc. Star Soldier is a ™ and licensed from Hudson Soft. Mystery Quest is a ™ and licensed from Carry Lab. Fist of the North Star is a ™ and copyrighted by Bronson Tetsuo Hara/Shueisha Fuji TV, Toei Animation. Mappy-Land is a ™ ® of and copyright protected by Namco Ltd.

LICENSED BY NINTENDO
FOR PLAY ON THE

Nintendo
ENTERTAINMENT
SYSTEM®

TAXAN
Consumer Division

CIRCLE #141 ON READER SERVICE CARD.

TurboGrafx-16 Buyer's Guide

by Lee H. Pappas

NEC launched the TurboGrafx-16 this past September with great anticipation from our readers, if the letters and phone calls we've been receiving are any indication. VG&CE was the first magazine to give the whole story on this new game system, and this month we're pleased to provide our readers with the complete TurboChip and CD-ROM games catalog. We've compiled this list using hands-on play testing—in most cases, using the Japanese versions.

All release dates should hold true, though those with early 1990 release dates are more susceptible to change. (VG&CE will continue to keep you up to date on new games and accessories.) And remember, we also publish TURBOPLAY, the exciting, new TurboGrafx-16-exclusive magazine (see subscription offer elsewhere in this issue.)

ALIEN CRUSH

A split-level pinball game the likes of which have never been seen on the video screen. Patterned after the nightmarish graphics from the movie *Alien*, this game features many surprises, including three bonus levels. The animation and graphic details are only surpassed by the fast play action and incredible music score (which gives you two soundtracks to choose from). You can also select fast or slow play.
Release Date: Available Now
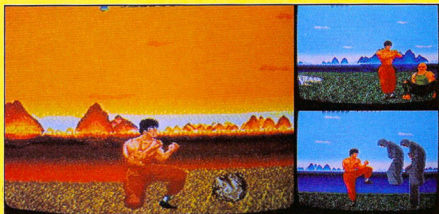
CHINA WARRIOR

Not just another chop-'em-up game, this one shows the characters in amazing detail. Fight your way to the end, attacking enemies and other moving objects. Your character can jump, kick and chop all to the tune of a musical background.
Release Date: Available Now

DRAGON SPIRIT

Instead of fighting a dragon, you *are* one in this game. Zip through the sky, shooting down enemies and bombing various types of monsters, while you pick up crystals for extra power. Your dragon can grow up to three heads and acquire all kinds of weapons, even shooting flames!
Release Date: November 1989

DEEP BLUE

Patrol the ocean depths in your mechanized sub-fish, blasting all types of marine life. Capturing power capsules lets you modify your weapons list. The music is well done and the graphics detailed and colorful. There aren't many underwater video games so this one is nearly in a class by itself.
Release Date: February 1990

FANTASY ZONE

This is an enhanced version of the popular Sega game. As controller of the ship *Opa-Opa*, you must shoot down the many colorful objects inhabiting this land. As they are shot down, they'll turn into gold coins that you must collect to buy add-ons for your ship. Add better weapons, turbo engines or better maneuverability.
Release Date: November 1989

FINAL LAP TWIN

Select your track and head out in your open-cockpit Formula race car. Steer, shift and brake your way across the finish line. The screen is divided into two halves that allow player against computer or two-player mode. Also on the cartridge is a radio-control car adventure game.
Release Date: February 1990

DUNGEON EXPLORER

Search the fairy-tale countryside for clues as well as objects in this *Gauntlet*-like role-playing game. Up to five people can play, helping one another out by taking on the various enemies that cross each other's path. One, for instance, can play the part of a wizard casting magic to save your little band of souls. If your magic fails, you can always resort to good, old-fashioned shooting!
Release Date: Available Now

JJ AND JEFF

Adapted from the comical Japanese game, *Kato and Ken*, this game was still in concept stage at press time. You control your on-screen character: running, jumping and shooting your way through many different levels. Hidden prizes and levels await you, as does the big boss at the end of the game.
Release Date: March 1990

THE LEGENDARY AXE

On your way to rescue your girlfriend, Flare, you'll encounter dragons, huge birds, axe-carrying thugs and giant killer panda bears. The music, sound effects and visuals are among the best on the TurboGrafx-16. Every NEC owner should have this one.
Release Date: Available Now
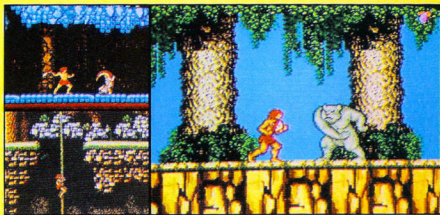
GALAGA '90

Based on the popular long-standing arcade game, this revised version takes the original concept to the limit. Your spaceship moves side to side at the bottom of the screen under your control while you shoot down the enemy bug-ships. Excellent music and vividly colored background graphics complement the animated ships. Lots of action will keep your interest for hours.
Release Date: November 1989

MILITARY MADNESS

Take command of your own army as you battle it out using futuristic weapons in this animated war game. Your main goal is to overrun the enemy and capture their main base or wipe out their entire army. Both armies are equipped with different types of vehicles including armor-plated tanks, rocket gun-equipped moonbuggies, various artillery, shuttles and spaceships. Anti-spacecraft guns and troops are also available over the 16 levels.

Release Date: February 1990

PACLAND

Pac-Man with hands and feet! Run along the *Pacland* countryside dodging those wacky ghosts who can be found flying planes, driving cars and even bouncing on pogo sticks. This game includes many levels and hidden bonuses.

Release Date: January 1990
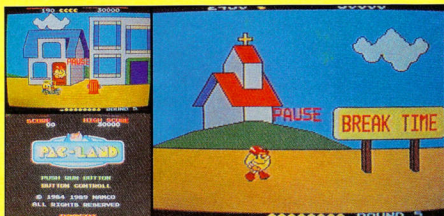
MOTO ROADER

Up to five human players can race for the finish line in this high-speed challenge. The options are many with several different race tracks, six different futuristic vehicles and several different music scores.

Gain points so you can equip your car with high-speed tires, better handling, brakes, engines and even turbos. Other add-ons include James Bond-ish toys like grenade launchers, bombs and nitro for higher speed.

Release Date: December 1989

GO HEAD-TO-HEAD, WIRELESS!

With The Nintendo® Double Player™ Wireless Head-To-Head System From Acclaim.™

Playing games on the Nintendo Entertainment System® will never be the same with Acclaim's new DOUBLE PLAYER™ System — the two player set of wireless controllers that really gives you and a friend the power to move when playing your favorite video games — especially games with head-to-head, 2-player action!

Officially approved by Nintendo,® the DOUBLE PLAYER™ System scores BIG with score-raising features like twin turbo rapid-fire, slow-motion, and pin-point accuracy from up to 30′ away. Get the winning edge.

THE HEAD-TO-HEAD WIRELESS winning edge!

Official Nintendo Seal of Quality

Licensed by Nintendo for use with the Nintendo® ENTERTAINMENT SYSTEM®

AKlaim™
entertainment inc
Masters of the Game™

There's no match for WWF WrestleMania.

WWF WRESTLEMANIA

You've always dreamed of being Hulk Hogan.™ Or one of the other WWF Superstars. And now here's your chance. Challenge your opponent to a wild match of dropkicks, headlocks, bodyslams and more! Or create your own tournament and compete against your friends or the computer. Up to six can play. So step into the ring and experience WWF WrestleMania®... from the inside!

Look for our Wrestlemania® Nintendo® and Hand-Held games.

AKKlaim
entertainment, inc

Masters of the Game®

R-TYPE

In *the* spaceship game for the TurboGrafx-16, you must blast your way through all eight levels, beating the level boss at the end of each round. This game is on a par with *The Legendary Axe* as far as graphics, sound and music go. Weapons at your disposal consist of a wave gun, missiles, shields, lasers, and air- and ground-attack beams. This version is identical to the arcade game.
Release Date: November 1989

POWER GOLF

At press time there were five golf games available for the PC Engine game system in Japan. NEC chose one of the best to bring to America, *Power Golf.* The scrolling fairway gives you a birds-eye view of everything: the tee, greens, rough, sandtraps and water hazards.
Release Date: Available Now

SIDEARMS

Don your fighting suit and shoot your way through open terrain and caverns. Pick up tokens to increase fire power. This game lets you select weapons from a list so that you can choose one whenever you need it. These can be heavy-duty blasters, multiple-shot or wide-beam lasers, among

others. Pick up the power suit, and you can shoot in all directions at once.
Release Date: December 1989

PATTON WOULD BE JEALOUS.

With TANK™, a battle star is born! In this M1 Abrams®
simulation, your weapons systems and enemy forces are totally
authentic. Deploy your forces in West Germany, Ft. Knox, or
the Middle East amidst incredibly realistic terrain created by
outstanding 3-D solid modeling graphics. Lead a company,
platoon or an individual tank against a formidable enemy
committed to the Soviet Doctrine of War. Just how long
'til the Russian Frogfoot comes to this party?

Victory is possible with your semi-automated forces
—up to 32 vehicles, including tanks, helicopters, artillery,
and A-10 aircraft. Before you find yourself looking down
the wrong end of an enemy gun, check the battlefield
map and do your strategic and tactical planning. From
within your tank, view the scene from multiple per-
spectives — gunner, driver, commander, or turret. For
a more comprehensive look at the situation try the
reconnaissance and out-of-tank views. For lots of
action TANK has an easy-to-learn "arcade" mode.
And in traditional Spectrum HoloByte style, the
head-to-head combat option against friends and
peers offers that ultimate challenge. No other
simulation can top TANK for authentic battle
sequences. "Old Blood and Guts" himself would
love to get his hands on TANK! Visit your local
retail dealer and get your copy NOW!

Spectrum HoloByte™

A Division of SPHERE, INC.
2061 Challenger Drive Alameda, CA 94501 (415) 522-0107

VIGILANTE

Punch and kick to survive the onslaught of hoods coming your way. You can pick up nunchaku and other weapons to assist you in your crusade to rescue the kidnapped girl.

Release Date: Available Now

WORLD CLASS BASEBALL

Choose your favorite team, then play ball against another player or the computer. Various views of the field let you see all the action. As the pitcher you can throw curves, strikes or balls. At bat you can time your swings and play like the real thing, hitting everything from grounders to home runs.

Release Date: November 1989

VICTORY RUN

This high-speed game is a version of the Paris-to-Dakar road race. You start out by stocking up on parts like brakes, suspension and engine, then zip through the countryside outside of Paris.

Colorful screens will take you from midday to night and back to morning. Controls let you accelerate, brake and shift gears while displays give you constant updates on your speed and engine RPM.

Release Date: Available Now

HARPOON

Somewhere in the desolate and freezing wastes of the North Atlantic, between Iceland and the Kola Peninsula, a Soviet battle fleet is lurking, ready to pounce on its prey.

As NATO Task Force Commander you must deploy your fleet of submarines, ships, and aircraft to locate, engage and defeat the Kremlin's finest.

Produced by Larry Bond, noted co-author of "Red Storm Rising" and Naval Analyst, Harpoon portrays the superpower's final confrontation. Now it's up to you.

With graphics that make everything else look like finger painting, and an arsenal of weaponry that comes up to your armpits, Harpoon's non-stop action, relentless intensity and chilling responsibility will leave you gasping. It's more than a mere game—it's a current event!

Available now for PC/compatibles. Coming for Macintosh, Apple IIGS and Amiga. Contact your software retailer or Three-Sixty, 408/879-9144.

THREE-SIXTY

NATO VS USSR.
THE ULTIMATE CONFRONTATION.
SEE IT THROUGH MY EYES.

NOW SHIPPING

BLAZING LAZERS

This game, called *Gunhead* in Japan, is a vertically scrolling shooting game. Man your spaceship, and blast your way through nine levels. Collect various pods on the way for bonus points or added weapons like ray beams and missiles. This is one of the most action-packed games on the TurboGrafx-16.
Release Date: Available Now

CD-ROM CARTRIDGE

This TurboChip is included with the TurboCD player and lets you play compact discs on your TurboGrafx-16 system. A display on your screen gives you loads of options, many of which can only be found on the most expensive compact-disc players. The music can be played through your TV or through a stereo system.

Visual readouts include track, index and time displays, plus dual VU meters. "Buttons" let you select the order in which songs will be played, a repeat option or fadeout. The cartridge also lets you scramble the song selections so that they are played in a random sequence.
Release Date: Available Now

FIGHTING STREET

This CD-ROM game pits you against four large opponents. Duke it out using kicks, jabs and outright punches. The detailed, colorful graphics are supplemented by *real* music and voices from the CD player.
Release Date: Available Now

Other games scheduled for imminent release are *Monster Lair* on CD-ROM, *Ordyne, Camp California* and another as yet untitled. We'll provide information on these and others in upcoming issues.

	WE SELL USED	WE BUY
10 YARD FIGHT	19.95	8.00
1942	19.95	8.00
1943	22.95	10.00
ADVENTURE ISLAND	24.95	12.00
ADVENTURES OF LINK	33.95	20.00
ADVENTURES OF LOLO	28.95	15.00
AIRWOLF	28.95	15.00
ALPHA MISSION	19.95	8.00
AMAGON	24.95	12.00
ANTICIPATION	24.95	12.00
ARKANOID W/CONTROLS	59.95	30.00
ATHENA	22.95	10.00
BALLOON FIGHT	19.95	8.00
BASES LOADED	28.95	15.00
BASEBALL	19.95	8.00
BIONIC COMMANDOS	24.95	12.00
BLADES OF STEEL	24.95	12.00
BLASTER MASTER	24.95	12.00
BOMBER MAN	28.95	15.00
BREAKTHRU	24.95	12.00
BUBBLE BOBBLE	24.95	12.00
BUMP N JUMP	24.95	12.00
BURGERTIME	19.95	8.00
CALIFORNIA GAMES	28.95	15.00
CASTLEVANIA	28.95	15.00
CHUBBY CHERUB	24.95	10.00
CITY CONNECTION	24.95	12.00
CLU CLU LAND	19.95	8.00
COBRA COMMAND	19.95	8.00
COMMANDO	19.95	8.00
CONTRA	24.95	12.00
DEADLY TOWERS	24.95	8.00
DEFENDER OF THE CROWN	33.95	20.00
DEFENDER II	28.95	15.00
DR JEKYLL & MR HYDE	28.95	15.00
DR. CHAOS	28.95	15.00
DONKEY KONG	24.95	12.00
DONKEY KONG CLASSICS	24.95	10.00
DONKEY KONG 3	24.95	10.00
DONKEY KONG JR. MATH	24.95	10.00
DOUBLE DRAGON	33.95	20.00
DOUBLE DRIBBLE	24.95	12.00
DRAGON POWER	24.95	12.00
ELEVATOR ACTION	19.95	8.00
ELWAY'S QUARTERBACK	28.95	15.00
EXCITE BIKE	19.95	8.00
FIGHTING GOLF	28.95	15.00
FIST OF NORTH STAR	28.95	15.00
FREEDOM FORCE	28.95	15.00
FRIDAY THE 13TH	24.95	12.00
GALAGA	24.95	12.00
GAUNTLET	28.95	15.00
GHOSTBUSTERS	28.95	15.00
GHOSTS N GOBLINS	24.95	12.00
GOLF	19.95	8.00
GO GO 13	24.95	12.00
GOONIES II	24.95	10.00
GOTCHA	19.95	5.00
GRADIUS	19.95	8.00
GUERILLA WARS	28.95	15.00
GUMSHOE	19.95	8.00
GUNSMOKE	24.95	12.00

	WE SELL USED	WE BUY
GUARDIAN LEGEND	28.95	15.00
GYRUSS	24.95	12.00
HOOPS	28.95	15.00
HYDLIDE	28.95	15.00
ICE CLIMBER	19.95	8.00
ICE HOCKEY	19.95	5.00
IKARI WARRIORS	24.95	8.00
IKARI WARRIORS II	24.95	8.00
INDIANA JONES	28.95	15.00
IRON TANK	28.95	15.00
JACKAL	24.95	8.00
JEOPARDY	28.95	15.00
JAWS	22.95	10.00
JOUST	22.95	10.00
KARATE CHAMP	19.95	5.00
KARATE KID	24.95	8.00
KARNOV	24.95	12.00
KID ICARUS	28.95	15.00
KID NIKI	22.95	10.00
KUNG FU	19.95	8.00
KUNG FU HEROES	28.95	15.00
LEGACY OF WIZARD	24.95	12.00
LEGEND OF KAGE	19.95	8.00
LEGEND OF ZELDA	22.95	10.00
LEGENDARY WINGS	24.95	12.00
LIFE FORCE	24.95	12.00
LODE RUNNER	19.95	8.00
LUNAR POOL	19.95	8.00
MACH RIDER	19.95	8.00
MAGMAX	19.95	8.00
MAJOR LEAGUE BASEBALL	24.95	8.00
MAPPY LAND	28.95	15.00
MARBLE MADNESS	28.95	15.00
MARIO BROS.	19.95	8.00
MARVEL'S X MEN	28.95	15.00
MEGAMAN	29.95	15.00
METAL GEAR	24.95	8.00
METROID	24.95	12.00
MICKEY MOUSECAPADE	24.95	12.00
MIGHTY BOMB JACK	19.95	8.00
MILLIPEDE	24.95	12.00
MILON'S SECRET CASTLE	28.95	15.00
MUSCLE	19.95	8.00
MYSTERY QUEST	28.95	15.00
•NINTENDO GAME SYS	64.95	45.00
NINJA GAIDEN	28.95	15.00
NINJA KID	19.95	8.00
OTHELLO	24.95	8.00
OPERATION WOLF	28.95	15.00
PACMAN	24.95	8.00
PAPERBOY	28.95	15.00
PEBBLE BEACH	22.95	10.00
PINBALL	19.95	8.00
PLATOON	28.95	15.00
POPEYE	19.95	8.00
PREDATOR	28.95	15.00
PRO-AM RACING	19.95	8.00
PRO WRESTLING	24.95	12.00
PUNCH OUT	24.95	8.00
QBERT	24.95	8.00
RBI BASEBALL	24.95	8.00
RACKET ATTACK	28.95	15.00
RAD RACER	19.95	8.00

	WE SELL USED	WE BUY
RAID ON BUNGLING BAY	19.95	8.00
RAMBO	19.95	5.00
RAMPAGE	28.95	15.00
RING KING	28.95	15.00
ROBO WARRIOR	28.95	15.00
RUSH 'N ATTACK	24.95	12.00
RYGAR	19.95	5.00
SECTION Z	19.95	5.00
SEICROSS	28.95	15.00
SESAME ST. ABC	22.95	10.00
SESAME ST. 123	22.95	10.00
SIDE POCKET	19.95	8.00
SIMON'S QUEST	24.95	12.00
SKATE OR DIE	28.95	15.00
SKYKID	19.95	8.00
SLALOM	19.95	8.00
SOCCER	19.95	8.00
SOLOMONS KEY	29.95	15.00
SPEED RUMBLERS	19.95	8.00
SPELUNKER	19.95	8.00
SPY HUNTER	19.95	8.00
SPY VS. SPY 1	24.95	12.00
SQOON	19.95	8.00
STAR FORCE	19.95	8.00
STAR SOLDIER	22.95	10.00
STAR VOYAGER	19.95	8.00
STINGER	22.95	10.00
SUPER MARIO BROS.	19.95	8.00
SUPER MARIO BROS. 2	33.95	20.00
SUPERMAN	28.95	15.00
SUPER PITFALL	19.95	5.00
T&C SURF DESIGN	19.95	5.00
TABOO	24.95	12.00
TAG TEAM WRESTLING	24.95	10.00
TECMO BASEBALL	28.95	15.00
TECMO BOWL	28.95	15.00
TEENAGE MUTANT NINJA	39.95	25.00
TENNIS	19.95	8.00
TETRIS	28.95	15.00
THUNDER BLADE	24.95	12.00
TIGER HELI	19.95	8.00
TOP GUN	19.95	8.00
TRACK AND FIELD	19.95	8.00
TRACK AND FIELD II	19.95	8.00
TROJAN	19.95	8.00
ULTIMA	33.95	20.00
URBAN CHAMPION	19.95	5.00
VOLLEY BALL	19.95	8.00
WHEEL OF FORTUNE	33.95	15.00
WILD GUNMAN	19.95	5.00
WINTER GAMES	24.95	12.00
WIZARDS & WARRIORS	24.95	12.00
WORLD GAMES	24.95	12.00
WORLD RUNNER (3-D)	19.95	5.00

PLEASE LIST ALTERNATES

*MUST INCLUDE (2) CONTROLLERS, POWER SUPPLY, AND INSTRUCTION BOOKLET. SUPER MARIO BROS. CARTRIDGE INCLUDED $5.00 WITHOUT CARTRIDGE.

	WE SELL USED	WE BUY
WRECKING CREW	19.95	8.00
WRESTLEMANIA	33.95	15.00
XENOPHOBE	24.95	12.00
XEVIOUS	24.95	10.00
ZANAC	28.95	8.00

COMING SOON

	WE SELL USED	WE BUY
ADV. OF BAYOU BILLY	28.95	15.00
AIGINA'S PROPHECY	28.95	15.00
AIR FORTRESS	28.95	15.00
BAD DUDES	28.95	15.00
BAD STREET BRAWLER	28.95	15.00
BATTLEFIELD NAPOLEON	28.95	15.00
BLACK TIGER	28.95	15.00
CARACKESTA	28.95	15.00
CHESTER FIELD	24.95	12.00
CYCLE SHOOTING	28.95	15.00
DRAGON NINJA	28.95	15.00
DRAGON WARRIOR	33.95	20.00
EMPIRE CITY	28.95	15.00
FLYING DRAGON I	28.95	15.00
GRAND PRIX	28.95	15.00
HEAVY BARREL	28.95	15.00
HECTOR VECTOR	28.95	15.00
HOLLYWOOD SQUARES	28.95	15.00
HULK HOGAN	33.95	20.00
JEOPARDY JR.	33.95	20.00
KID KOOL	28.95	15.00
KUNG FU II	28.95	15.00
MAGIC OF SHAHRAZAD	28.95	15.00
MEGAMAN 2	28.95	15.00
NATL FOOTBALL LEAGUE	28.95	15.00
NIGHTMARE ON ELM ST.	33.95	20.00
NINJA TARO	28.95	15.00
PASSWORD	28.95	15.00
PRICE IS RIGHT	33.95	20.00
ROAD RUNNER	28.95	15.00
ROBOCOP	28.95	15.00
ROGER RABBIT	33.95	20.00
ROLLERBALL	28.95	15.00
SKY SHARK	28.95	15.00
STAR FORCE II	28.95	15.00
STREET FIGHTER	28.95	15.00
STRIDER	28.95	15.00
SUPER DODGE BALL	28.95	15.00
SUPER SPRINT	28.95	15.00
SUPER STAR FORCE	28.95	15.00
SUPER XEVIOUS	28.95	15.00
TERMINATOR	28.95	15.00
TERRA CRESTA	28.95	15.00
TITAN WARRIOR	28.95	15.00
TOUCHDOWN	28.95	15.00
TOUCHDOWN FEVER	28.95	15.00
U.S. GOLF	28.95	15.00
VEGAS DREAM	28.95	15.00
VINDICATORS	28.95	15.00
WILLOW	28.95	15.00
ZETA GUNDAM	28.95	15.00
ZOMBIE MASTER	28.95	15.00

GENESIS BUYER'S GUIDE

by Lee H. Pappas

This much anticipated game system was the first of the new generation systems available in North America. While the enthusiasm over the Genesis has been great, Sega hasn't sat by watching the grass grow. We are very impressed with the number of games available and what will soon be released.

Altered Beast

Included with the Genesis, this game starts you off as a mortal and

Altered Beast

Altered Beast

Altered Beast

boosts your power, transforming you into several different forms of creatures. For a complete rundown of this game, see the strategy guide for *Altered Beast* elsewhere in this issue.

Release Date: Available Now

Arnold Palmer Tournament Golf

This is Sega's version of golf, with colorful graphics. Design your own custom courses from over 25 of the world's best holes. Wind, water hazards and sand traps add to the "fun."

Release Date: Available Now

Arnold Palmer Tournament Golf

Forgotten Worlds

A futuristic shooting game which contains plenty of action. Your character can be attacked from all directions at once. Build up bucks to get shields, bigger guns and other weapons.

Release Date: February 1990

Ghouls 'N' Ghosts

Journey through the Place of the Executor, the Village of Decay, the Town

Ghouls 'N' Ghosts

of Fire and the Crystal Forest. Powerful weapons and the magic you possess will help you. Seek out and destroy the Prince of Darkness.

Release Date: Available Now

Golden Axe

Based on the arcade combat game, the Genesis version features two additional levels not found on the coin-op. This one is

going to be intense!

Release Date: February 1990

Last Battle

Following a destructive battle that has ravaged the land, Aarzak (the character you control), Alyssa and Max have started a revolution to regain their homeland. Now Alyssa has been kidnapped, and it's up to you to save her. All you have in your favor is a martial-arts style called Jet-Kwon-Do, and you'll need it to get past

Last Battle

the horde of enemies in your way.

Release Date: Available Now

Mystic Defender

Magic is your primary weapon in this colorful game. High jumps and powerful weapons assist

Last Battle

Mystic Defender

you in your difficult quest, where you'll do battle with giant serpents and lots of bad guys.

Release Date: January 1990

Phantasy Star II

A deluxe version of the popular role-playing adventure game found on the Sega Master System. This six-megabit cartridge contains battery backup so that the game you are playing can be saved and continued at a later date.

Release Date: March 1990

Rambo III

If war and combat games are your thing, you'll overload on this one. Equipped with machine guns, cross-

bows and bombs, you make your way across the different battlefields, blowing up what you can't shoot. Guard towers, machine-gun bunkers, troops—nobody is safe from Rambo.

Release Date: December 1989

The Revenge of Shinobi

Based on the popular arcade game, this high-action karate game has you facing ninjas with swords and throwing
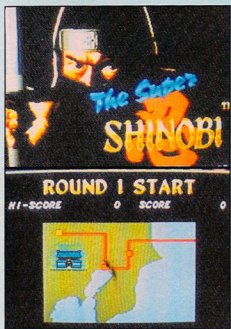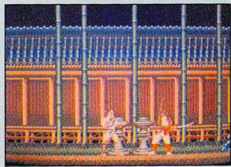
stars. On your journey to find the killers of your father, you must try to acquire ninja magic to help you do away with your enemies and survive to fight another day.

Release Date: Available Now

Space Harrier II

Based on the arcade game, your high-flying character blasts his way across a hue-filled, futuristic battlefield at an incredibly high rate of speed. Meanwhile, he is

Rambo III

The Revenge of Shinobi
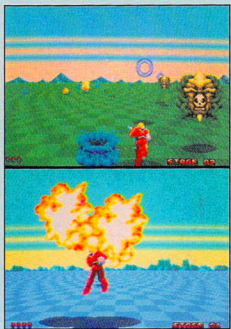
Space Harrier II

PHANTOM FIGHTER ™

GET BIGGER KICKS FIGHTING PHANTOMS!

Phantom Fighter is the martial arts game with a *big* difference. It's the new action game that lets you chop and kick against ghostly enemies with supernatural powers! These zombie phantoms get even bigger and stronger as your skill improves. (But don't worry—you've got some magic of your own.) You'll be challenged by some tricky questions. Ghosts, puzzles, and dialogue make this Kung Fu challenge more unpredictable. Get your kicks with Phantom Fighter!

■ Over 100 Ghosts! ■ Dialogue! ■ Password Memory!

FCI

Not Just Kid Stuff

constantly assaulted by all manner of ground-based and flying objects.

This game is *identical* to the coin-op version, right down to Space Harrier's death scream!

Release Date: Available Now

Super Hang On

Select one of the 24 courses and fire off on your racing motorcycle.

Super Hang On

Some tough competition faces you in this race for the victory flag. Based on the popular arcade game.

Release Date: December 1989

Super Thunder Blade

Super Thunder Blade

Super Thunder Blade
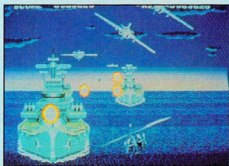
Patterned after the coin-op game of the same name, you take off in your attack chopper, blasting away at ships, enemy planes and other helicopters, as well as tanks. You'll zip through cities and cruise over enemy-infested waters, but be warned that rockets and guns await you.

Release Date: Available Now

Thunder Force II

My favorite game for the Genesis, this one has it

Thunder Force II
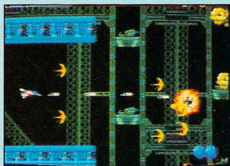
all. Digitized voices confirm commands, graphics intrigue and play action is superb. *Thunder Force II* also has the best sound I've ever heard in a game. The first time I played the game with headphones I couldn't believe it—but, then again, that feeling didn't change the fiftieth time I played it, either. This game of space warfare switches every other level between a side-view mode and an overhead mode. The number of weapons at your disposal is impressive.

Release Date: Available Now

Tommy Lasorda Baseball

Baseball comes to the

Put Your Brain in Action
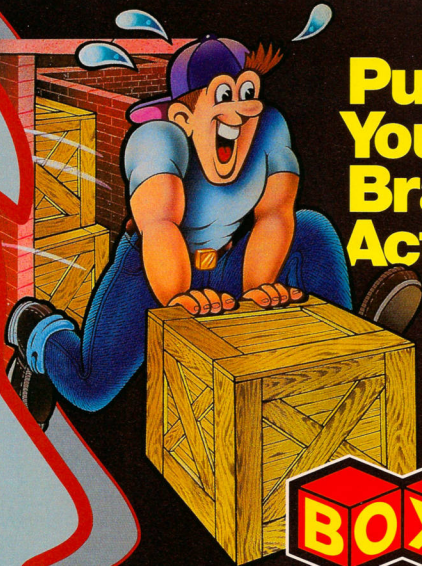
BOXXLE™

The Portable Puzzle for your Game Boy System

BOXXLE is the go-anywhere brain teaser that makes action games look easy. Your challenge is to move the boxes into their proper spaces and clean up the "warehouse." Sounds simple? Just try it! You need more than manual labor to win, it takes *brain power* to beat BOXXLE! Once you clear a screen there's another. And another! Each more difficult than the last. Over 100 screens! Plus you can choose which screen to play or use the edit function to create your own screens. Get your Game Boy ready to go. You'll never get bored once you get BOXXLE!
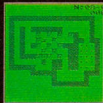
■ 108 screens
■ 3 edit screens
■ Password memory
■ Animation and synthesized sound

GAME BOY

FCI

Not Just Kid Stuff

CIRCLE #153 ON READER SERVICE CARD.

Tommy Lasorda Baseball

Genesis in spectacular fashion. The famous manager of the 1988 World Championship Los Angeles Dodgers leads you through this action-packed diamond game, which is loaded with options: stolen bases, pinch running and batting, varying winds, even league play on a national or world scale. It is also equipped with digitized umpire calls, which adds to the excitement. This is one hot video-sports cartridge!

Release Date: Available Now

Truxton

A vertically scrolling shoot-'em-up space game. (Few details were available at press time.)

Release Date: February 1990

World Championship Soccer

Kick off against one of the 24 teams in this inter-

A BREAKTHROUGH
IN REAL WRESTLING ACTION!

FCI

WCW℠
WORLD CHAMPIONSHIP
WRESTLING

Featuring
The Road Warriors
and Stars of
the NWA

Licensed by Nintendo
for play on the

Nintendo
ENTERTAINMENT
SYSTEM®

Official
Nintendo
Seal of Quality

Take a break from play wrestling and get into the real action! Make your choice from 12 top
NWA wrestlers, each with his own speciality move and then select four additional moves to clobber
your way to victory in tag teams or single player matches. Become 6'5" of solid muscle as
"Total Package" Lex Luger. Use the *Flying Body Press* of Ricky Steamboat. Stun your opponent with
Sting's *Scorpion Death Lock*. Master Road Warrior "Animal's" *Power Slam*.
The action keeps going even outside the ring! Two players or solo against the computer!
World Championship Wrestling—It's so real, it's unreal!

FCI
Not Just Kid Stuff

World Championship Soccer

national challenge. The U.S. is there, as are teams from Brazil, France, England and Italy. The playfield scrolls giving you a bird's eye view of the entire playfield.

Release Date: Available Now

Also announced, though unavailable for review at press time, is *Zoom!*, to be released in January, 1990.

We expect that 1990 will be the year for the Genesis to take off in America. It is currently the most popular 16-bit system in Japan, where it is being sold under the name of Mega Drive. Similar to Nintendo's marketing of their Famicom (the predecessor to the NES here) in Japan, many game cartridges are first released in Japan, then make their way to the States after some reworking.

In a future issue, we will show you some of the games that Japanese players are seeing on their screens.

SEGA GENESIS

When we introduced the Sega Genesis video-game console in the August 1989 issue of VideoGames & Computer Entertainment, Sega was gracious enough to sponsor a contest for our lucky readers. We know you've been patiently waiting for the results of their drawing—and here they are. . .

★ GRAND-PRIZE WINNER ★
(who receives a Sega Genesis system)

**Leroy Jones
Phoenix, Arizona**

RUNNERS-UP
(each receiving an *Altered Beast* T-shirt)

**Bogdan Raczynski
Ralston, Nebraska**

**Nichole Critz
Concord, California**

**Victor Lams
Ann Arbor, Michigan**

**Eleanor Subonj
Sterling Heights, Michigan**

**Stephen Cook
Ilion, New York**

**Linda Erwin
Bailey, Colorado**

**Michael Romero
San Francisco, California**

**Vinh Huvnh
Covina, California**

**Peter Endisch
St. Lambert, Quebec, Canada**

**Shawn Domenico
Jamestown, New York**

INTRODUCING TWO NINTENDO® GAMES
FOR THE KID IN ALL OF US.

Sure. It can be pretty embarrassing. Everyone else is finally asleep. You quietly slip out of bed, tip-toe into the family room and gently insert the awaiting cartridge. When just as you're about to zap your zillionth alien onto another astral plane—flash!—the lights go on . . . You're busted. Caught red-handed and red-faced, playing yet another juvenile, one-dimensional video game.

Well, blush no more. Never again will you have to hide your passion for video game excitement and entertainment. Never again will you find yourself lamely justifying a game designed to be played by eight year olds.

Not for Kids Only.
Introducing *Shadowgate*™ and *Desert Commander*™ by Kemco Seika. Not only do these two pioneering and innovative programs deliver all the fun you'd expect from one of the world's leading NES® software developers, but they also provide something extra. A challenge. A grown-up challenge. A challenge that tests the agility of your mind, not your fingers.
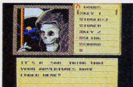
Shadowgate is the most engaging, object-oriented, interactive graphic adventure you've ever seen on a Nintendo Entertainment System® *Shadowgate* features text and animation, multiple screens, participatory "mouse"-like controls and a special "save" function like those found in the finest PC games.

Desert Commander is the ultimate war strategy game that simulates realistic battle situations. With military component strengths and deployment options completely variable at five levels of combat complexity, *Desert Commander* takes the best from logistics and tactics-oriented board games and couples it with the power and versatility of a computer.

Come Out of the Closet.
If you're a closet Nintendo fanatic playing behind closed doors, step out and step up to Kemco Seika's *Shadowgate* and *Desert Commander*. Because hey—you don't have to be a kid to play.

KEMCO ▲ SEIKA

ALTERED BEAST

STRATEGY GUIDE

by Lee H. Pappas

As a showpiece game for the Genesis, Altered Beast comes packaged with this exciting, new game system. This arcade classic features colorfully detailed graphics and smooth animation, as well as an exceptional soundtrack filled with digitized voices. Lots of surprises await you, so let's get going!

ROUND 1

The first transformation you'll undergo will be into a werewolf. Abilities include flame streaking and throwing fireballs. The flame streaking will let you zip horizontally at fast speed, destroying most objects in your path.

The slow feet are the first enemies you will encounter. One punch or kick will truly ruin their day. The Headless Horrors are tougher to kill, and remember. . .they punch back!

When the blue three-headed wolves appear, they must be destroyed to obtain the magic spirit balls.

Three blue wolves must be killed and the three magic capsules captured to gain full powerup and transform. If three blue wolves go by and you miss any, the level will continue until you get your third power-up. This extends your play time and increases your chances of getting maimed or killed.

When a magic capsule is obtained, you will be momentarily paralyzed and susceptible to injury. The best trick is to kill anything immediately near you before grabbing the capsule.

The demon dog, Neff, throws lightning at you. Avoid him and he'll just go away. Destroy him and 100,000 points is yours. The second or third time in a round he appears, you get 50,000 and 20,000 points respectively for getting him.
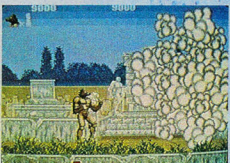
Aggar is almost here.

Aggar is the boss of Level 1. He likes to rip off his head and throw it at you—but he grows new ones right away! In the guise of a werewolf, you can try and dodge the heads by running between gaps or use your flame streak to blast through the heads. The fireballs you throw will eventually kill Aggar.

ROUND 1 COMPLETE—Hurry up!
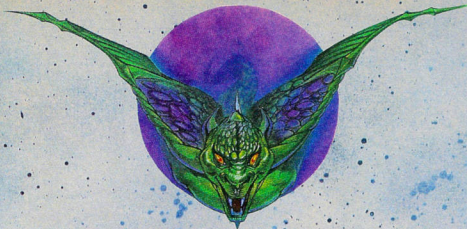
ROUND 2

By turning into a weredragon, you can fly and spit lightning bolts. You can also raise up a laser barrier, shield that protects you.

The rattle tail snakes are easy to avoid or destroy in this round. A little tougher are the round leeches. These purple spuds jump on you, latch on to your head and drain your energy counter quickly. Keep punching to get them off of you. The third enemies, chicken stingers, keep their distance and are the most difficult to kill.

As a weredragon you can fly and spit lightning bolts. Use these to kill any creatures left.
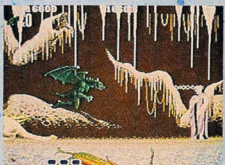
Neff appears again and won't bother you, if you stay away.

Try out your laser barrier. Pretty good, huh?

Now it's Octeyes turn.
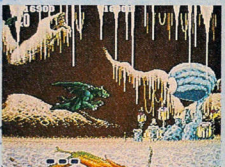
In this form, Octeyes is a nice guy.
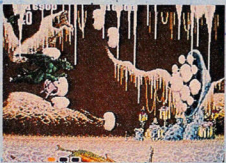
...but when he sets his eyes on you there is big trouble. Use your laser barrier to protect yourself and keep shooting into his central eye.

ROUND 2 COMPLETE—Athena is being prepared.

ROUND 3

The werebear gives you bear breath that'll kill almost anything. As a bear you can also go into a body spin—kind of like a furry boulder.

Stay high and you'll be safe.
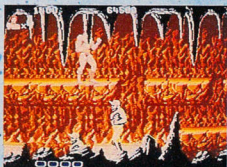
...because there are dangerous pits below which even the horny-headed grave masters can fall into.
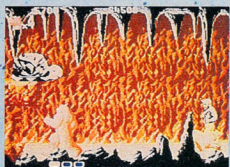
As a werebear you have death breath and can roll into a furry ball for a powerful attack. The rock turtles move slow and die easy.

You'll have to come down eventually because the platforms run out and the blue wolves appear below how.

It's moldy snail time. Get ready to attack as soon as it appears.

Your bear breath isn't the way to kill moldy snail. Use the body spin and bounce into the snail, then out again.
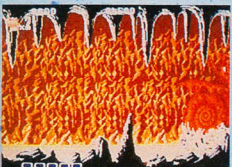
This creature is easier to destroy than Octeyes.

ROUND 3 COMPLETE—Athena is being changed into a bird!

ROUND 4

As a weretiger, bouncing flame balls come out of your fingertips. Like the flame streak, you can turn into a pillar of fire, but this works up and down, not side to side.

This is a tricky level so get all the capsules you can! Creatures come from above and below.

High jump onto the columns and walls to avoid creatures below, and also position yourself to kill the hammer demons.
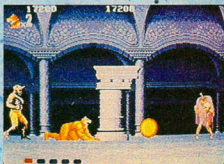
The weretiger can shoot bouncing flame and fly on a pillar of fire. The pillar of fire is the same as the flame streak, except it moves up and down and not side to side. You'll kill enemies with ease using these.

Watch out for the round leeches! Now isn't the time to die.

Prepare to battle the crocodile worm!

Use the pillar of fire to kill the little dragons that come out of the crocodile worm.

Keep whomping the croc with bouncing flame and you'll eventually trash him.

ROUND 4 COMPLETE —Too late! Athena has been transformed.

ROUND 5

The gold werewolf is similar in power to the werewolf in Level 1.

In this level, there's a good piece of advice: If it moves, kill it.
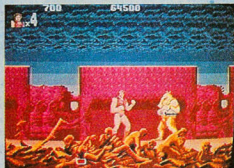
The gory goats, dark unicorns and saw fishes are tough, but the rad boars are bad news.

The rad boars will jump on the upper levels and knock you off.

The wolves move fast in this level. It's easy to miss at least one of the first three.
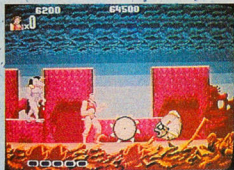
Jump over or punch the saw fish

Say hello to Neff, again. He has a killer punch but your gold werewolf can take him down, if you avoid his hits.
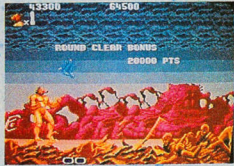
Your quest is complete.

ROUND 5 COMPLETE—Athena has been saved—thanks to you.
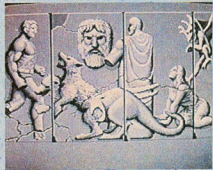
I command you to rise from your grave and rescue my daughter.

Not a bad place to stay out of trouble.

Keeping a low profile is a good idea here.

COORDINATE
NO NUKES

An example of the new trend in video gaming. An important life tip, though not necessarily applicable to Altered Beast, from the programmers.

Practice your punches and kicks on these easy targets.
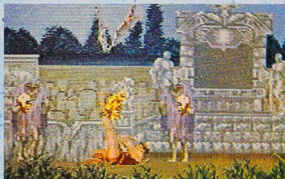
When the skinny oreuses comes down, push the "B" button to kick up.

Torch your enemies with ease after you recover the first magic ball.

Flame streaking here will give you some practice before the big guy appears.

SEGA

The VG&CE Directory of
Computer-Game Companies

by the Editors

This address directory of American computer-entertainment software companies provides VG&CE readers with the information they need to make contact with the folks who produce computer games in this country. The data is accurate as we go to press, but be prepared to discover that some companies have already moved by the time you try to contact them. Frequent relocations seem to be part of the nature of software publishing.

If the company you want is not in this list, the chances are that its products are distributed by a larger outfit that handles queries from consumers. Check the program package for this information.

Access Software
545 W. 500 South
Bountiful, UT 84010;
(801) 298-9077.

Accolade
550 S. Winchester Blvd.
Suite 200
San Jose, CA 95128;
(408) 985-1700.

Anco Software
P.O. Box 292
Burgettstown, PA 15021.

Artworx
1844 Penfield Rd.
Penfield, NY 14526;
(716) 385-6120.

Atari
1265 Borregas Rd.
Sunnyvale, CA 94086;
(408) 745-2160.
Customer service line:
(408) 745-2367.

The Avalon Hill Game Company
4517 Harford Rd.
Baltimore, MD 21214;
(301) 254-9200.

Bethesda Software
15235 Shady Grove Rd.
Suite 100
Rockville, MD 29850;
(301) 948-2200.

Blue Lion Software
90 Sherman St.
Cambridge, MA 02140;
(617) 876-2500.

Britannica Software
345 Fourth St.
San Francisco, CA 94107;
(800) 572-2272.

Broderbund
17 Paul Dr.
San Rafael, CA 94903;
(415) 492-3200.

California Dreams
780 Montague Expressway
Suite 403
San Jose, CA 95131;
(408) 435-1445.

Capcom
Consumer Products Div.
1283-C Mountain View/Alviso Rd.
Sunnyvale, CA 94089;
(408) 745-7081.

Cinemaware
P.O. Box 5083
Westlake Village, CA 91359-5083; (805) 495-6515.

Cosmi
431 N. Figueroa
Wilmington, CA 90744;
(213) 835-9687.

Data East
1850 Little Orchard
San Jose, CA 95125;
(408) 286-7080.

Davidson & Associates
3135 Kashiwa St.
Torrance, CA 90505;
(800) 556-6141.

DigiTek Software
8910 N. Dale Mabry
Executive Center
Suite 37
Tampa, FL 33614;
(813) 933-8023.

Discovery Software
163 Conduit St.
Annapolis, MD 21401;
(301) 268-9877.

Eagle Tree Software
P.O. Box 164
Hopewell, VA 23860;
(804) 452-0623.

Electronic Arts
1820 Gateway Dr.
San Mateo, CA 94404;
(415) 571-7171.

Epyx
P.O. Box 8020
600 Galveston Dr.
Redwood City, CA 94063;
(415) 366-0606.

FTL Games
6160 Lusk Blvd.
C-206
San Diego, CA 92121;
(619) 453-5711.

Garde Games
107 Forest Brook
Guilford, CT 06437;
(203) 458-9363.

Hi-Tech Expressions
584 Broadway
New York, NY 10012;
(212) 941-1224.

IntraCorp.
14160 SW 139th Court
Miami, FL 33186;
(800) 468-7226.

Keypunch Software
1221 Pioneer Bldg.
St. Paul, MN 55101;
(612) 292-1490.

Koei Corp.
One Bay Plaza
Suite 540
1350 Bayshore Hwy.
Burlingame, CA 94010;
(415) 348-0200.

Lance Haffner Games
P.O. Box 100594
Nashville, TN 37210;
(615) 242-2617.

Mediagenic
3885 Bohannon Dr.
Menlo Park, CA 94025;
(415) 329-0500.

Michtron
576 S. Telegraph
Pontiac, MI 48053;
(313) 334-5700.

MicroLeague Sports Association
2201 Drummond Plaza
Newark, DE 19711-5711;
(302) 368-9990.

Mindscape
3444 Dundee Rd.
Northbrook, IL 60062;
(312) 480-7667.

OmniTrend
P.O. Box 733
Simsbury, CT 06092.

Origin Systems
136 Harvey Rd.
Londonderry, NH 03053;
(603) 644-3360.

Scholastic
730 Broadway
New York, NY 10003;
(212) 505-3303.

Scorpion
19 Harbor Dr.
Lake Hopatcong, NJ 97849;
(201) 663-0202.

Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614;
(209) 683-4468.

Silicon Beach Software
P.O. Box 261430
San Diego, CA 92126;
(619) 695-6951.

Simulations Canada
P.O. Box 452
Bridgewater, N.S., Canada
B4V 2X6;
(902) 688-2808.

Sir-Tech
P.O. Box 245
Ogdensburg, NY 13669;
(315) 393-6633.

Software Simulations
959 Main St.
Stratford, CT 06497;

(203) 377-4339.

Software Toolworks
19808 Nordhoff Pl.
Chatsworth, CA 91311;
(818) 885-9000.

Spectrum Holobyte
2061 Challenger Dr.
Alameda, CA 94501;
(415) 522-3584.

Spinnaker Software
One Kendall Square
Cambridge, MA 02139;
(617) 494-1200.

Strategic Simulations, Inc.
675 Almanor Ave.
Sunnyvale, CA 94086-2901;
(408) 737-6800.

subLogic
501 Kenyon Rd.
Champaign, IL 61820;
(217) 359-8482.

Three-Sixty Pacific
2105 S. Bascom Ave.,#290
Campbell, CA 95008;
(408) 879-9144.

Timeworks
444 Lake Cook Rd.
Deerfield, IL 60015;
(312) 948-9200.

Titus Software
20432 Corisco St.
Chatsworth, CA 91311;
(818) 709-3692.

Virgin Mastertronic International
18001 Cowan St.
Suites A & B
Irvine, CA 92714;
(714) 833-8710.

MEGA HITS

THE BEST OF THE BEST

by Joyce Worley

Software is as ephemeral as hit records, as fleeting as a summer day. A disk sold in every software outlet, heavily advertised in the media and played with gusto by *all* the right gamers may nonetheless be little more than a memory a year later, available for purchase only by mail. Five years later, the game only lives in the minds of a handful of entertainment-software professionals and avid gaming hobbyists with a taste for history. Who now remembers Paul Stephenson's innovative *Aztec* (Datamost), Philip Price's beautiful *The Tail of Beta Lyrae* (Paradise Programming) or National Microcomputer's imagination-grabbing *Empire of the Over-Mind* (Avalon Hill)? Even award winners are quickly forgotten when the state-of-the-art moves on.

And it's no real wonder. The sales figures for a hot game are miniscule when compared with exposure figures for other popular media, such as movies, television programs, bestseller books, records or periodicals. Relatively few people have even seen the master-pieces of our chosen art form.

How well must computer software sell to be a bona fide hit? A good hint lies in the Software Publishers Association (SPA) Certification Program. Silver Certificates go to games that sell more than 50,000 copies; Gold Certificates to games that sell more than 100,000; and Platinum Certificates are given to games that sell more than 250,000 copies. A new level of award, the Diamond Certificate, is bestowed on games that sell 500,000 copies or more.

In other words, 50,000 copies is a respectable sales figure for a piece of entertainment software, definitely better than average. A disk that goes Gold is a triumph, one that hits Platinum is a masterpiece and any disk that gets a Diamond Certificate is, by definition, one of the top sellers in the world.

But there are signs of change. Now that software has opened the world market, higher sales figures are becoming more common. Games that once could only look forward to their day in the American sun can now anticipate a day in English, European, Japanese and even Australian software spotlights as well. Almost every American publisher has some kind of distribution agreement to market titles abroad. And the reverse is true, too, as more and more software created on the other side of the world finds its way into American stores.

The New Millionaires

The world market has produced a new coterie of superstar games, but it's not always easy to know which titles are in the club. Every company guards their sales figures as jealously as they protect their algorithms, so gathering information for this article was somewhat akin to Riley sleuthing out German plans before WWI. The following list may not be complete, and I apologize to any companies with a superstar computer game that isn't mentioned.

There are only a handful of software titles that have topped one million copies sold. The ones listed here (in no particular order) are *all* the cream of the cream.

SubLogic's *Flight Simulator* is unquestionably the most popular computer game in the world, with nearly two million copies sold. Created by

Where in the World Is Carmen Sandiego?

California Games

Karate Champ

Pac-Man

Space Invaders

Flight Simulator

Bruce Artwick, *Flight Simulator*'s small single-engine aircraft continues to rule the skies. The company's Integrated Flight Line of support products and scenery disks keeps more subLogic planes in the air than Pan Am.

MicroProse is another high-flyer. *F-15 Strike Eagle* passed one million in the summer of '89, and the program is still racking up sales. This jet simulator features an easy-to-fly F-15 in an arcade-style, action-oriented combat simulator.

It probably won't surprise anyone to know that *Pac-Man* sold well over a million copies. In fact, no one really knows how many gobbler games are out there, when you count all the video-game, arcade and computer ripoffs released earlier this decade. However, what *is* a surprise is that the officially licensed computer version of *Pac-Man* is still racking up sizeable sales for Thunder Mountain. This discount publisher's worldwide and domestic market combined to give the old favorite a new life and was rewarded by a sales figure that already tops 500,000 copies.

Thunder Mountain has another big winner in the sales sweepstakes. Over

a half-million copies of *Top Gun* have been sold, and the simple-to-use combat flight simulator is still racking up the numbers. The game also has incredibly high video-game sales. Konami's version of *Top Gun* for the NES has sold over 1.8 million copies in America alone.

Diamonds Are a Game's Best Friend

The 500,000 mark, once an almost unattainable goal, is designated Diamond by the Software Publishers Association. Only a few titles are officially certified at this level by the group.

There is only one educational game that approached sales figures of these dimensions, and this one made it only because its potential for fun tops its admittedly great educational aspects. Broderbund's *Where In The World Is Carmen Sandiego?* is a detective trek around the world with players following clues to locate the missing Carmen. Over 800,000 people have purchased this game: an incredible accomplishment for any piece of entertainment software and especially remarkable for an educational game.

California Games from Epyx has

gamers all over the world hitting the silicon beach to compete at surfing, skateboarding, biking, roller skating and other trendy sports. Featuring arcade play in the style of Epyx's other *Games*, this is a good-natured spoof of more Olympian sports. With great graphics, good controller action and events that can be played solo or as part of a tournament, *California Games* managed to surpass the titles which inspired it. The game was declared Diamond in 1989, and the sales are still mounting.

When Data East brought *Karate Champ* to home computers, it inspired a rash of me-too products that resulted in more martial-arts warriors than a karate class for grammar-school students. But nothing could stop this *Champ* from stomping all the rest. Data East's disk was certified Diamond earlier this year by the SPA, making this program the black-belt winner of fighting simulations.

Cinemaware's *Defender of the Crown*, cited as the most beautiful game in existence at the time of its release, has romanced almost three-quarters of a million gamers worldwide. An arcade-strategy game with role-

Summer Games

Hardball

Top Gun

California Games

HOLLYWOOD

PLAY AGAIN? YES

Winter Games

Defender of the Crown
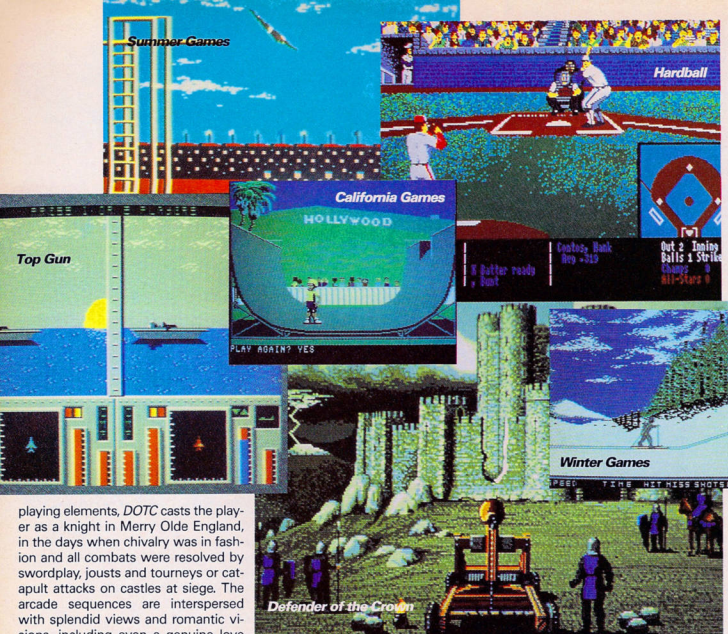
playing elements, *DOTC* casts the player as a knight in Merry Olde England, in the days when chivalry was in fashion and all combats were resolved by swordplay, jousts and tourneys or catapult attacks on castles at siege. The arcade sequences are interspersed with splendid views and romantic visions, including even a genuine love story that peaks in front of a roaring fireplace.

Hardball's split-screen display, which allows the game to focus on the batter-pitcher confrontation, is the key to outstanding success for this program. Great graphics and an exceptionally simple control system have made this action-strategy sports title a long-term hit that has already passed 500,000. *Hardball* (Accolade) might have reached the million figure except that a sequel, *Hardball II*, is almost ready for market now, and the new game may sidetrack sales for the original.

Robert Woodhead and Andrew Greenberg created *Wizardry* (Sir-Tech Software) in 1981. The world's first computerized, multiple-player RPG (role-playing game), it introduced a style of dungeon crawl that dominated adventuring for the balance of the

decade. One to six players, each controlling multiple characters, outfit themselves with supplies, then descend into a ten-level maze full of monsters, magic, treasures, traps and tricks. *Wizardry* was the first game to incorporate the essential elements of the non-electronic Dungeons & Dragons. A masterpiece at the time it was introduced, the game garnered critical acclaim and player plaudits, along with a sales record of well over 500,000 copies.

MicroProse's *Gunship* won a Diamond for its spectacular simulation of the Apache AH-64A attack helicopter. Players train in the U.S.A., then take a heavily armed copter on missions in Southeast Asia, Central America, the Middle East and Western Europe. A career-record screen tracks the player as he/she earns medals, promotions and commendations in combat simulations using missiles, rockets and an on-board cannon.

Platinum Settings Waiting for Their Diamonds

In July 1989, as the entertainment industry gears up for the approaching holiday season, over a dozen SPA certified Platinum titles (over 250,000 sold) are lined up rather like maidens hoping for their engagement rings. By the time the winter buying season turns to spring, many of these games will be sporting their Diamond Certificate.

Accolade's *Test Drive* broke the mold for driving simulations by providing a detailed cockpit perspective. The ability to shift gears makes the climb up The Rock something more than a foot-to-the-floor sprint. This auto game has already sold over 400,000 copies and should win its Diamond soon.

Ring King

Gunship

Defender of the Crown

Lode Runner

Jingle Disk

SCORE 00000000   MEN 005   LEVEL
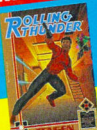
Lode Runner (Broderbund) is a joystick-controlled action strategy game. Manipulate the miner through precarious mazes as he gathers treasures and tries to avoid the bad guys. In order to proceed to the next level, Lode Runner must cover every inch of the maze. His only real talent for staying out of trouble is the ability to dig holes which might entrap his tormentors or at least provide an escape. *Lode Runner* sales are winding down now, and the game's sales may never reach the next level despite its great play action and smooth-as-silk controls. However, it is currently enjoying a new life as a video game.

Where in the U.S.A. Is Carmen Sandiego? (Broderbund) is the local version of *Where in the World Is Carmen Sandiego?* In this one, the gamer follows clues about Carmen's location some-place in the U.S.A. This educational title, like its world-famous sister product, is so much fun for family play that it's almost a shame to call it educational.

Karnov and *Ring King* (both by Data East) feature still more martial arts. *Karnov* is a bald strongman hired to be a defender by a village threatened by bad guys. *Ring King*, a boxing contest, pits players against each other or the computer in pugilistic combat.

Math Blaster! (Davidson & Associates) is the biggest selling arithmetic game available. Utilizing a simple play mechanic (players must "shoot down" problems by typing correct answers), it is a great math exercise for classroom or home use and works best as a drill for students who have already learned the basics of math.

One more educational game, *Math Rabbit* (The Learning Company), a be-ginner's arithmetic tutorial, had remarkable sales. Grammar students study number relationships and patterns, develop counting skills, then finally progress to adding and subtracting two-digit numbers, all under the gentle tutelage of an on-screen bunny.

Electronic Arts' *Advanced Flight Trainer* is a flight simulator with a special on-board trainer, test pilot Chuck Yeager. It emphasizes *learning* to fly, rather than complicated flying missions. The only thing that might stop this title from reaching 500,000 is its sequel, *AFT II*, which began a rapid march up the charts this summer.

Dr. J and Larry Bird Go One-on-One (Electronic Arts) uses the real moves, shooting percentages and strategies of the two basketball stars for a game that simulates their characteristics. Two gamers (or one against the computer) can go one-on-one, hold a slam-dunk contest or take Larry Bird's role in a three-point shoot-out. This is a classic "must own" for hoop fans.

Bill Budge's *Pinball Construction Set* (Electronic Arts) brought the coin-snatchers home earlier this decade. Gamers can play on the five pinballs included, but the most fun is designing

Skyfox

Advanced Flight Trainer
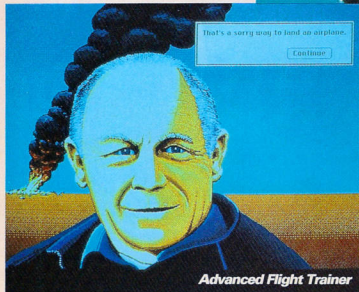
your own. A cut-and-paste bank of ingredients, such as bumpers, flippers and spinners, let the pinball wizard put together customized killer tables.

Skyfox, designed for Electronic Arts by Ray Tobey, is a classic flying-and-shooting game. The plane is equipped with weapons, radar and guidance systems, and there are 15 scenarios that provide the pilot with plenty of targets. Published in 1984, the game has since been superceded by more sophisticated flying machines, including *Skyfox II*, but it's still a blastathon to play.

Summer Games I and *Winter Games* (Epyx) are *the* original go-for-the-gold sports entertainments. The slate of eight summer sports includes track, swimming and skeet-shooting events, as well as high bar, diving and gymnastics. The seven winter competitions include a bobsled run, ski jump, figure skating and biathlon, as well as really handsome official opening ceremonies.

Jingle Disk (Hi-Tech Expressions) is the only seasonal program that ever made the hit list. A collection of holiday activities at a bargain-basement price made this a perennial stocking stuffer. The disk is rarely seen in American computer stores nowadays, so it seems unlikely it will ever reach 500,000 in sales. But, a world audience

could keep the coins jingling into Hi-Tech's coffers for this Christmas disk.

Infocom-style adventures have been technologically bypassed; computerists aren't interested in "radio games" in this age of high-quality graphic programs. However, two of the Infocom text adventures did accumulate platinum sales and may yet win their diamonds. *The Hitchhiker's Guide to the Galaxy*, based on the Doug Adams book, is whimsically faithful to its source tome. *Zork I*, the first of a clutch of *Zork*ian adventures, was the original best-selling text adventure. (In actual point of fact, *Zork I* was the first program to receive a Gold Certificate from the SPA.)

Silent Service (MicroProse), the submarine simulation, pits the compu-commander against the enemy in this underwater mission to intercept and destroy enemy ships. This is a realistic, super-playable simulation using multiple screens and featuring great ease-of-use.

Jeopardy and *Wheel of Fortune* (Sharedata) are home versions of the hit television gameshows. Contestants match wits against the computer in play action that echoes the TV programs. These disks have found widespread popularity due to the built-in

audience developed by the shows and will probably continue to mount up sales for years to come.

A Minefield of Diamonds

The effect of worldwide software distribution is just beginning to make its mark on the awards structure. It will never be as hard in the future for a game to win its Diamond as it was for the ones that have up to this point. Increased audiences spell enlarged sales figures. By this time next year, the number of Diamond-decked programs will have tripled.

This increased sales opportunity has had, and will continue to have, tremendous impact on gamers. As the potential for big bucks increases, manufacturers are able to devote more funds to research and development. Development costs will be offset by sales volumes, resulting in the creation of more elaborate games. Eventually, this may even translate into lower prices for state-of-the-art games.

Meanwhile, the list of top sellers is a great checklist for gamers. These are the titles most people like best, which makes the list a good recommendation for software shoppers. If you haven't played all of these—what are you waiting for? ♟

A Player's Guide to:
MegaMan 2,
Part II

by Clayton Walnum
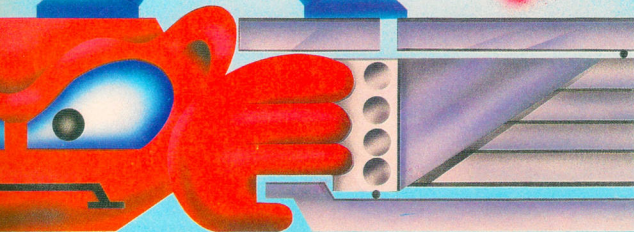
L ast month, we presented the first six levels of *MegaMan 2*. We hope you've spent these four weeks practicing and mastering those levels, because this time, in addition to the last two levels of the first half of the game, we've got Dr. Wily's entire fortress.

In the following article and maps, we'll give you a complete look at the concluding levels of *MegaMan 2*, as well as provide you with tips to help you past difficult areas in the game. For that reason, if you already own *MegaMan 2*, we suggest you not read this article in its entirety before you've had a chance to play the game. If you do, many surprises may be spoiled for you. However, you may, if you haven't yet purchased the game, feel free to use this article as an extended review to help you decide whether *MegaMan 2* interests you.
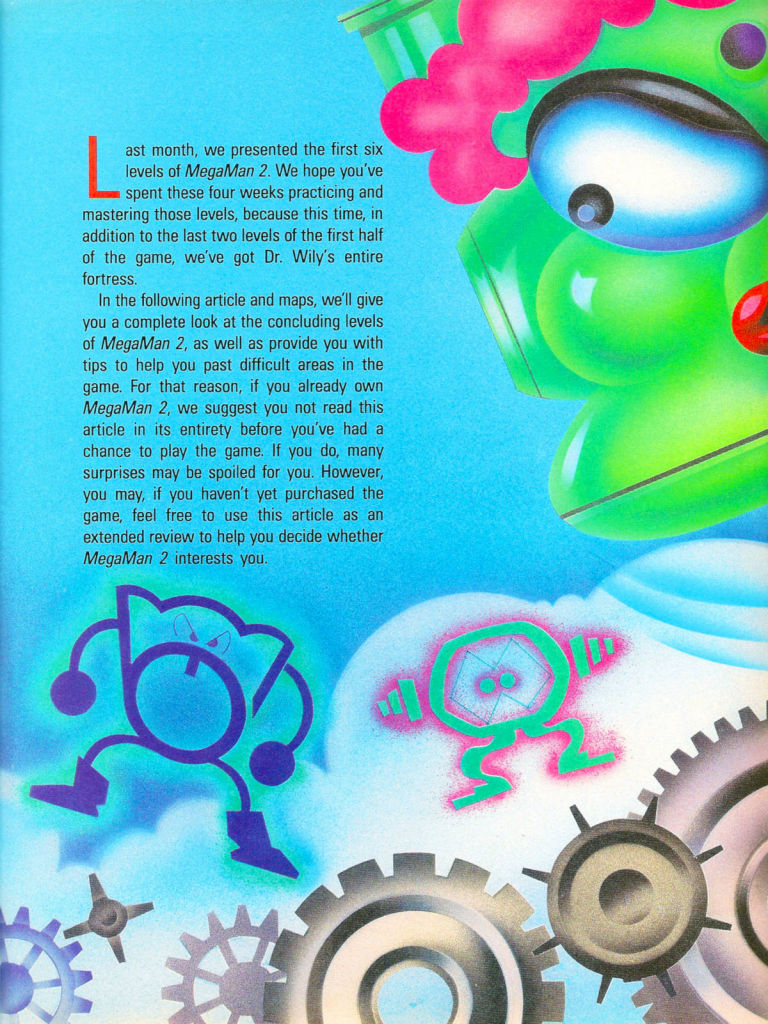
Dr. Wily's Fortress

We won't spend time here discussing the last two levels of the first half of *MegaMan 2*. All the hints you need are provided with the maps that follow. General playing tips were presented last month, so you should consult that issue if necessary.

The first eight levels of *MegaMan 2*, which comprise the first half of the game, are mostly simple arcade contests requiring little strategy to make your way through successfully. Once you learn the best ways to fight the many creatures that attack, you'll be able, with a couple of exceptions, to breeze through those levels.

Dr. Wily's fortress is another matter, however. Not only do you have to be a hot joystick jockey, but you also must be ready to use your noggin. There are some locations in Dr. Wily's fortress that seem almost impossible to pass until you figure out the trick. And, yes, most of the tricks are marked on the maps that follow, but you'll be decreasing your enjoyment of the game if you don't figure out things for yourself whenever possible. Don't be too quick to read our solutions. Use that big round thing on top of your neck (your head, dummy). That's what it's there for.

Perhaps one of the toughest things about Dr. Wily's fortress is that, until you catch up with the doctor himself, you have to start over from the beginning of the fortress when you lose all your lives. In other words, you must play through all six levels in a single game. This can be discouraging at first, but as you become more efficient at each level, you'll find it easier and easier to get through them. Eventually, you'll be whipping past all of Dr. Wily's devious traps with little difficulty.

Oh, No! Not Again!

Each time you make it past one of Dr. Wily's locations, the fortress map will come up on the screen, and the next leg of your journey will be filled in. When you get to the skull, be prepared for a nasty surprise: You have to refight and defeat, one after the other, all eight bosses from the first levels of the game. Although this is a difficult task, it's not quite as tough as it first seems. Most of the bosses will drop an energy capsule once defeated, enabling you to restore some of your lost life.

Still, it's imperative that you know exactly how to defeat all eight bosses, and it's especially important that you know the best weapons to use. The same fighting strategies you used to defeat the bosses before will work fine this time as well. Use these weapons:

Wood Man—metal blade
Bubble Man—metal blade
Quick Man—atomic fire
Crash Man—regular shot
Air Man—regular shot
Metal Man—boomerang
Heat Man—bubble lead
Fish Man—regular shot

WOOD MAN 1

The robo-rabbits will fire deadly carrots at you, but if you act quickly, you can blast them before they get a chance to shoot.

Stand back and wait for the mecha monkeys to jump up onto the platform, then let them have it. As long as you keep your distance, they won't be able to harm you.

WOOD MAN 3

QUICK MAN 1
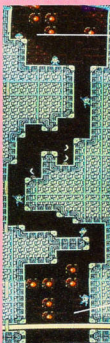
To get this free life, you'll need a levitation platform or an elevator.

As you fall through this passage, don't hesitate for a second, or you'll get blasted by the energy beams.
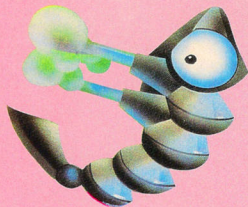
QUICK MAN 2

Shoot the hotheads from a distance, and they'll never get you.

You're going to have to navigate through most of this passageway in the dark. As soon as you defeat the hotheads, whose fires have been lighting the caves, it gets too dark to see.

Fall through the right-hand passage, and you'll be able to pick up some valuable items, including another free life and an energy capsule.

The last thing you need after falling past all those energy beams is more walkers. But, of course, Dr. Wily doesn't want to make it too easy for you.

QUICK MAN 4

You don't need to bother with the bats hanging from the trees. If you want to fight them, that's okay; they aren't much of a challenge. But you'll save time if you just run past them.

When jumping between platforms, be careful that the flying fish or their eggs don't knock you down.

WOOD MAN 2

The hot dogs may seem like difficult foes at first. As soon as you see the stream of fireballs come from their throat, jump and the fire will pass beneath you. You can't get by the hot dogs without first defeating them, though. You might find that the atomic fire weapon is especially effective against these creatures.

Metal blades, which you can fire in any direction, are particularly effective against the robo-rabbits in this section.

WOOD MAN 5
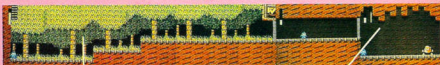
The atomic chickens are difficult to avoid. Usually, if you stand close to one of the steps, the chickens will jump over you. If you're good at timing their jumps, you might also be able to stop in just the right place when not next to a step.

Wood Man uses a ring of leaves as a weapon. At first, the ring circles his body, protecting him from your shots. Then he throws the ring at you. This is when he is the most vulnerable. Leap over the leaves and fire quickly. Another strategy that sometimes works is to get as close to Wood Man as you can, which allows some of your shots to make it through his rotating leaf shield. In fact, it's sometimes even possible to get partially inside his shield. Remember, the closer you are, the faster you can shoot. Wood Man is one of the more difficult enemies.

QUICK MAN 3

WOOD MAN 4

When you fall down this hole, stay all the way to the right.

This vertical passageway is one of the toughest sections of the game. You must keep moving at all times (this is Quick Man's domain, after all), and always take the shortest route, or the energy beams will blast you to dust. Turning in mid-air is also essential to making it past the beams. You're going to have to practice to learn the correct route through each screen. But don't give up! Once you have the pattern, you'll be able to make it through every time.

Stay close to Flash Man, fire rapidly and try to avoid his machine-gunlike attack. But even if you get hit a few times, Flash Man is easy to defeat.
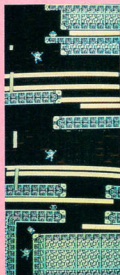
Dr. Wily Level 1, Strip 1

Use an elevator to get on top of this small building.

The metal blade weapon works well against the worm generators.

Dr. Wily Level 1, Strip 3

Jump these blocks without stopping. If you pause in the wrong place, the dragon will hit you when he appears. Once the dragon does appear, you have to keep moving to stay ahead of him. As soon as a new block appears on the right of the screen, jump to it. Don't dilly-dally!

Dr. Wily Level 2, Strip 1

Use metal blades on these pesky prop-tops. But don't pause. Fire as you run, because the prop-tops can inflict a lot of damage should they hit you.

Produce a jet sled here and ride across the spiked floor.

It'll take careful timing, but the ladder farthest to the right is the one you want. You need to jump up from the jet sled at just the right moment—or it's onto the spikes you go!

In this area, you can build up both your life and weapons' energies by blasting the unlimited number of screws that will descend from the ceiling and ascend from the floor. As long as you're in this corridor, the screws will keep coming. If you're lucky, you might even get a 1-up.
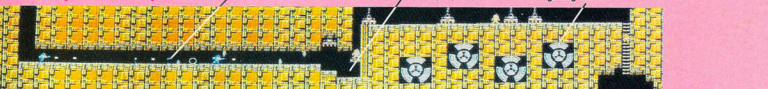
An elevator will get you up this wall.

It takes precision movement to get past these metal munchers without getting hit.

Dr. Wily Level 2, Strip 3

Dr. Wily Level 2, Strip 3
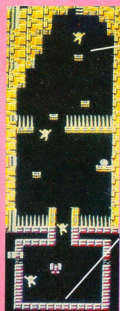
Maneuver MegaMan as he falls in order to avoid landing on the spikes.

Use boomerangs to defeat the machines that will materialize from the walls. Once you learn their pattern, you'll be able to avoid them easily enough. It might help to have an "E" capsule stored away for this battle. Keep a close watch on your life, and use the capsule when your life gets too low.

Dr. Wily Level 3, Strip 1
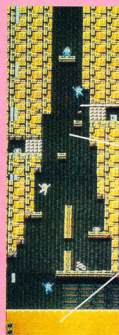
Use crash bombs to get through this wall.

Use crash bombs here too.

Whatever you do, don't land on the spiked mines when you fall into the water.

Use another elevator here.

The worm generator will keep coming back if you run to the left until this section is off the screen and then run back. This is a great way to fill up all your weapons. Shoot the worm generator, collect your energy capsules (if any) then bring the generator back to shoot again.

When you get all the way to the end, get up on the highest block. That way, if the dragon hits you (as he's bound to do), you will fall onto the lower block, rather than falling all the way and losing a life. Use Quick Man's boomerang to defeat the dragon. It'll only take a few hits.

Dr. Wily Level 1, Strip 2

Getting to the ladder in the upper left requires some tricky moves with levitation platforms. Stand on the top of the lower ladder, as far to the left as you can, then create a platform. Immediately jump onto the platform, go as far to the left as you can and create another platform. Do this one more time, and you should be able to reach the upper ladder. It takes practice.

Dr. Wily Level 2, Strip 2

Shoot metal blades from the ladder to get rid of these two annoying creatures.

Crash bombs will get you through these walls and into where the prizes are.

Fall from the ladder and swing slightly to the right in order to enter the passageway between the spikes.
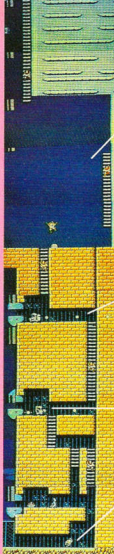
Climb to the top of the ladder, fire at the enemy on the left, then go back down the ladder before his shot can hit you.

Use metal blades from below to get this guy. Shoot at an angle.

Use a levitation platform to get the free life, then use another levitation platform to get to the ladder. Unfortunately, the platform won't take you all the way to the ladder. You'll have to jump straight up when the platform starts blinking.

Dr. Wily Level 3, Strip 2

Fall down the exact center of this vertical passageway.

It's fairly easy to jump from pillar to pillar. Just make sure you don't fall onto the mines.

A well-timed jump will keep you from getting munched by giant fish that leap from the water's bottom.

Don't accidentally hit the jump button while you're in this corridor. There's danger overhead!
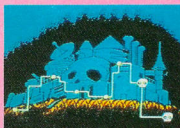
Dr. Wily's fortress gives you an additional seven levels of arcade puzzles and action.

Leaping from one flying platform to another is the only way to make it past this screen.
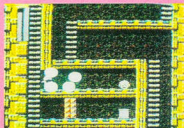
Crash bombs can help you get through some types of walls.

Dr. Wily Level 3, Strip 3

As you fall, keep steering slightly to the left.

Dr. Wily Level 3, Strip 4

When Guts-Dozer appears, jump up in front of his fist (but don't hit the fist), and shoot him in the eyes with boomerangs.

Use metal blades against these guys.

Dr. Wily Level 4, Strip 2

Dr. Wily Level 4, Strip 3

Drop onto the rail car when it's right below you. Then keep shooting in order to keep the spinning spools from knocking you onto the spikes.

Here you'll need a leaf shield to protect you from the spinning spools. You'll have to jump from the rail car before the wall in the center pushes you off, but jump back on once the car clears the wall.
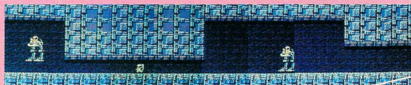
Before you enter this room, you must make sure your crash bombs have full energy. When fully charged, you will have exactly enough bombs to clear out all the energy beamers here. And don't shoot out any walls except those that are absolutely in your way. If you do, you won't have enough crash bombs to complete your battle. (Hint: Rather than shooting out the wall in the center column, use a levitation platform to get up onto the column.)

Dropping safely onto the rail car from this high ladder requires careful timing. Once on the rail car, ride it to the center of the bottom rail. Then jump onto the stationary platform in the middle, and wait for the rail car to pass through the wall. When it does, jump back on and ride it up to the platform in the upper right. Jump off there and proceed down the ladder.

Ride the car until you can jump onto the small stationary platform. Then take a jet sled from there over to the ladder.

The Final Approach

The only thing blocking your way in these caverns is the lava dripping from the ceiling. Don't let it hit you: It causes serious damage.

Fake floors can make it difficult to get some valuable items.
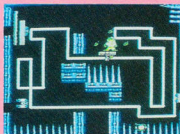
The leaf shield is immensely helpful when trying to ride this rail.
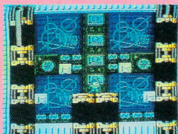
In the next to the last level, you must refight all eight bosses from the first levels.

Dr. Wily Level 4, Strip 1
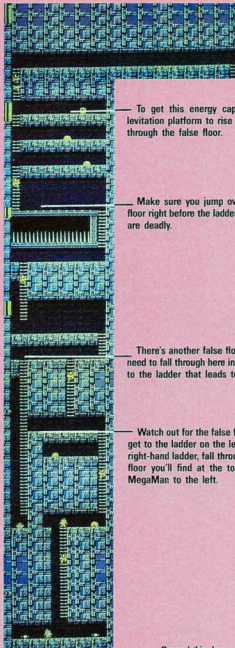
To get this energy capsule, use a levitation platform to rise from below, through the false floor.

Make sure you jump over the false floor right before the ladder. The spikes are deadly.

There's another false floor here. You need to fall through here in order to get to the ladder that leads to the 1-up.

Watch out for the false floor here. To get to the ladder on the left, climb the right-hand ladder, fall through the false floor you'll find at the top and guide MegaMan to the left.

Beyond this door, you'll finally face Dr. Wily in his true form. The only weapon that'll affect him is bubble lead, which makes this battle particularly tough, since Dr. Wily attacks from above and bubble lead doesn't stay in the air very long. Good luck! You'll need it.

After defeating the eight bosses, Dr. Wily will attack with this extraordinary machine.

The Last Level?

Once you defeat all eight bosses the second time, you'll finally come face-to-face with Dr. Wily. He'll do his best to give you a good battle, but like all "tough guys," he's a coward at heart. Even though you might think you're about to win the game, you'll find that once you give Dr. Wily a good beating, he'll run away. You have to chase him into the depths of his fortress—through caverns dripping with lava—and confront him once again.

To defeat Dr. Wily the first time and make him retreat, first use your regular shot to blast out the windshield of his vehicle. Stay to the far left of the screen and, in order to avoid being hit, jump up each time Dr. Wily shoots. While you're in the air, fire at his windshield. When the windshield is destroyed, use your crash bombs to continue blasting. It's more difficult at this point to avoid Dr. Wily's fire, but take heart: You need to hit him only a few times with the crash bombs to make him run away.

Once you're in the fortress' caverns, you need to make it past the dripping lava. There are two ways to do this. First, if you're the timid type, you can make your way slowly and carefully past each drip. However, if you're the kind of player who likes taking chances, you can, if your timing's just right, run full speed all the way to the end of the caverns.

You'll meet Dr. Wily for the last time at the end of the caverns. This time your job is going to be tough. (The only weapon that will work against him is bubble lead.) Dr. Wily isn't about to run away and leave his fortress to the likes of you. It's a battle to the death, and a desperate Doctor makes for a formidable opponent.   —Good luck!

PERIPHERALS™
Commodore®
of this world !!

ULTIMATE™
superstick

Micro-switch
control, dual
auto-fire,
left and right
hand play,
4 LED lights.

HOT STUFF

Auto-fire,
left and right
hand play.

BUILDING A BETTER
WORLD

**Bullfrog's
Peter Molyneux
Discusses
*Populous***

by Bill Kunkel

Auckland

The process of creation is one of the most wondrous and mysterious of all human phenomena. The transformation of a block of stone or a square of canvas into a work of art, the telling of a marvelous story, or the dramatic re-creation of human events in a theatrical format are processes so elusive that often even the creators themselves are at a loss to explain their inspiration.

Human creativity is said to mirror the act of divine creation, whereby a mass of flaming gases and cosmic debris were metamorphosed into rolling, green hills and spans of blue ocean as a chaotic universe was brought to some semblance of order.

Populous (Electronic Arts), by the British software group Bullfrog, gives computer users a taste of this primal creative process as they literally build a civilization from scratch on the surface of a barren planet. Players must also contest with an evil doppelganger deity for dominion over a variety of brave new worlds.

The nascent world is depicted as a grid of tiles, many marked with icons; a blank slate which can be transformed by the user into outposts of civilization, with

huts, towers and even castles. *Populous* offers users 500 different worlds, with topographical variations from frozen tundra to barren deserts. As the planet is cleared, life begins to appear, occupying the structures built for it. All aspects of the evolving world that the player creates are under complete control, to the

The Bullfrog group responsible for the creation of *Populous*; leader Peter Molyneux at center.

point where the user may even decide to visit a disaster or two upon the populace. (There's nothing like a plague or an earthquake to stiffen the religious fervor of one's believers, after all.)

Meanwhile, the evil deity is also hard at work, building his forces and preparing for the

inevitable conflict which will see one or the other creator driven from this world.

Populous, a phenomenal success in Europe, transformed Peter Molyneux and the lads at Bullfrog into overnight celebrities. Their only previous original design was the rather obscure *Fusion*, but the impact of *Populous* instantly established Bullfrog as a major player in the game-design field. The number-one seller through much of the summer, the game's blend of strategic simplicity (it is, at root, as much a strategy game as chess or checkers) and brilliant conceptual underpinnings established it as a certified cult smash.

The interest in *Populous* was so great that the best players from England, Sweden, Germany and France met in the U.K. in August to determine the number-one armchair deity. Prizes were trips to various parts of the world, the exact location determined by the scenario the player won on — green goes to Canada; desert to Egypt, etc.

The Story of *Populous*

The design origins of *Populous* are among the most unique in the

---

The Bullfrog Group

In addition to Molyneux, here are the talented folks that comprise Bullfrog Productions:

● *Glenn Corpes* — Corpes is Bullfrog's graphics specialist and ST expert. "He's a graphics programmer who actually started out as an artist and later learned programming," says Molyneux.

He developed the graphics system that took *Populous* from a collection of Lego blocks on a tabletop to a computer simulation.

● *Les Edgar* — Edgar "takes care of all the boring jobs for the company," according to the game's liner notes, "like getting up in the morning and writing out paychecks. It's his job to keep the team enthusiastic, and he's often heard asking: 'Isn't that bloody thing finished yet?'"

● *Kevin Donkin* — Donkin is the group's computer wizard and the main programmer on Bullfrog's only other original game, *Fusion*. Described in the liner notes as "only

happy when he's at a keyboard. We've had to drag him away from cash dispenser machines."

● *Andy Jones* — Jones does the bulk of the original graphics design work. He produces what Molyneux calls 'scratch graphics,' the original storyboards from which the programming is done. "These are generally based on hallucinations generated by incredibly loud heavy-metal music," the liner notes tell us. "Andy's main interest is adding graphic details to the games and testing new ideas poured forth from the team."

● *Dave Hanlon* — Hanlon is Bullfrog's voice, writing all the original music and "complain[ing] when we only allow him 256 bytes for it," according to the notes. "A musician for several years, Hanlon uses a complex Amiga setup to produce his excellent results."

● *Sean Cooper* — Rounding out the group is Cooper, a recently-promoted beta tester who scrupulously scours Bullfrog's output for any insidious bugs or glitches.
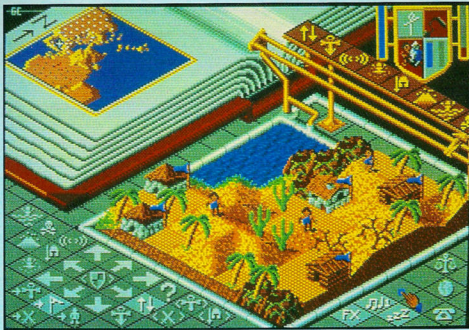
history of electronic gaming. "We started out," Molyneux explains, "looking for a real-time game that would be fun to play."

But the genesis of the eventual design sprang from a most unlikely source. "We were playing with Lego blocks — do you know what they are?" Having had several nephews grow up during the past 15 years, I assured Molyneux of my intimate familiarity with the popular toy that allows its users to form a limitless number of constructs with modular, snap-together plastic blocks. Molyneux then explained how they began playing *Populous* as a board game, creating pockets of civilization on their vast, tabletop landscape.

"The game began to take on a life of its own. At one point we considered that the existence of any landmass would raise the water level around it, but we couldn't really emulate this very well with Lego bricks," he recalls with a chuckle. "But the game *really* began to take shape when Glenn [Corpes] created the graphics system and got the game up and playing in a two-player version. It was then we were able to look at the game and see where we were going."

Populous had just been released in the U.S. at press time, and Bullfrog hadn't heard very much from the Colonies on its sales yet. "Obviously the Amiga and ST aren't as important in the States as they are in Europe, but once we get the PC version out, we'll get a much better idea." Molyneux is working on that very version, in fact, as we speak. How does it look? "It's looking good," he reports confidently. "We've still got to do the Tandy mode, but the other modes are done. It'll be available in CGA, MCGA, EGA and VGA as well."

Another question lurks behind the game's appearance on American shelves: Might it draw the ire of the always-pugnacious religious zealots, who may see the game as an irreverent attempt to "play God"? Even the title *Populous* seems to be intentionally vague, as if begging the question of what the game is really about. The back of the box contains two references to "deities," but the main graphic on the front of the box displays a pair of massive hands, one holding an Earth-like planet while the second launches lightning at it through its fingertips.

"Obviously, we were not intending to be blasphemous," Molyneux says. "There's no mention of 'God' or the 'Devil' anywhere. This was never intended to be a Jesus Christ simulator. It's simply a contest [pitting] good versus evil. At one point, in fact, we set up a landscape where the players [were cast as] political parties: Conservative vs. Labour, the parties which are comparable to [the U.S.'s] Republicans and Democrats.

"Actually, the game was released in England at the time of the Salman Rushdie affair [Rushdie wrote a novel called *The Satanic Verses* that earned him a condemnation to death by the religious fundamentalists in Iran], and people were coming up and asking us if we were worried about Iranian death threats." The soft chortle that followed Molyneux's telling of this anecdote seemed a pretty good sign that none of the Bullfrogs are losing sleep on that account.

The success of *Populous* in Europe made it a popular subject on the U.K.'s various computer bulletin boards. "There are always conferences going on with people talking about what worlds they've defeated and so on." A special "hot line" has even been set up that allows British users to play against different members of the Bullfrog design group. "I've probably played over a thousand games of *Populous*," admits Molyneux, "and I still play it regularly." It's a good bet he'll be playing it a lot more.

Bullfrog's ongoing contact with a nation full of *Populous* players has resulted in the collection of some interesting facts. "The shortest time anyone has taken to defeat the evil deity was 20 seconds. One fellow told me, and I was able to confirm this by speaking with his opponent, that he had played a game, continuously, for *36 hours*! I myself once played a game for over six hours, but, generally, I'd say an average game takes about half an hour. There are some games where you think: 'I haven't got a

FACE THE FIRE

Weapons of fury.

It's the next century in FORGOTTEN WORLDS, and you're the only one left who can save Mother Earth from savage aliens. Your space-age weaponry is awesome but so are your obstacles! Armed with an anti-gravity device you can fly through enemy defenses and eradicate the alien bases. But watch out! Missiles, monsters, dragons, robots and laser guns are bombarding you from every direction!

If you're ready to save Earth's defenseless men, women and children, see your favorite software retailer or call Capcom U.S.A. at 408-727-1665

There's havoc in the factory as you blast away the invaders.

The Bronze Dragon is a formidable foe. You never know when it will strike!

CAPCOM®
USA
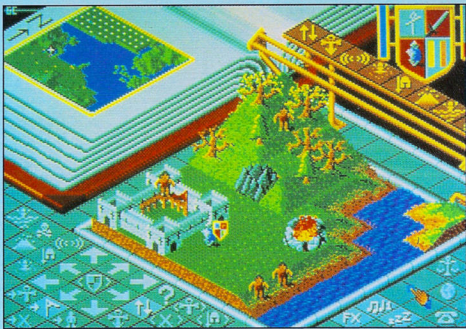
chance!' but if you hang in there for a while and build slowly, you can come back."

All this feedback has proven very helpful in the development of the inevitable sequel. "Electronic Arts has already released an extra worlds disk with five new worlds on it — and, in fact, one of the worlds is made up of Lego blocks! We *are* planning a sequel, naturally, but first we're going to take six months to sort of mull it over." And what would be the primary difference between any sequel and the original? "The people," Molyneux says without hesitation. "We want to make the people more exciting and more distinctive. Oh, there are loads of effects you could do — the flood becomes a tidal wave or war becomes disease — but the all-encompassing difference is that we want it to seem like there is a real population occupying the inside of your computer."

Bullfrog learned early on, however, that making changes in the creation process can be a tricky business. "Every change, no matter how small, can produce major results. The game has to be constantly readjusted."

But, then, nobody ever said creation was going to be easy. ♟

Tips From the Top Bullfrog

Although a review of *Populous* appears elsewhere in this issue of VG&CE, head Bullfrog Peter Molyneux had a couple of basic tactical hints that he was happy to share with our readers.

"Get as many people into an area as possible," he suggests. "First, build a flat area near the sea, then create a castle. People tend to breed more quickly in a castle, and once you've got a good population going, reduce the castle to a tower and then to huts. With the castle gone, the people will pour out into the land and begin to leave. This spread of people that results is the key to winning the game."

Molyneux also warns players to "watch out for knights! A knight attack can be disastrous. If a knight enters an area, build some huts around the population in an attempt to confuse the knight."

Knights can be more effectively stopped through another tactic. "If you watch, when a knight is crossing from one land mass to another, you can place a swamp right in front of him to *swamp* him."

Finally, Molyneux advises players to "stay as close to sea level as possible."

BAD TO THE BONE

These are the streets. And there are no rules when you do battle here.

STREETFIGHTER is strictly survival of the fittest against 8 of the baddest dudes from around the world. Watch out for flying scissor kicks, lethal Ninja weapons, and other evil tricks. Block their attacks while you counter with jabs and roundhouse kicks. Don't drop your guard cause these guys aren't just b-b-b-b-bad. They're "Bad to the Bone."

So see your favorite software retailer or call Capcom U.S.A. 408-727-1665. You don't want to keep these guys waiting!

Try a roundhouse kick against an English street tough.

Dodge the lethal Ninja weapons of Geki.

STREET FIGHTER
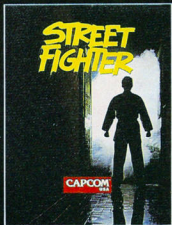
CAPCOM
USA

CAPCOM®
USA

Win a Granite Medal in Caveman Ugh-Lympics

Electronic Arts

Versions: Commodore 64, IBM PC

Electronic Arts' latest entry adds a bit of humor to otherwise serious Olympic events. In this version of the games, the player must excel in the types of games our ancestors may have competed in millions of years ago. Each event pits the player against a computer player or up to five other competitors. So, without further ado, let the games begin . . .

Mate-Tossing

In the first event, the player must spin his mate as fast as possible in an attempt to hurl him or her the greatest distance. The trick to this precursor to the hammer throw is to maintain a steady pace while building momentum, slowly increasing to full speed. If the player increases the tempo too quickly or erratically, the caveman will lose balance and begin to stumble. If this happens, quickly release the stick and wait for him to return to normal. The instant he is standing, restart the rotation process, trying to keep it smoother this time.

Releasing one's mate as soon as the speed lines appear, as the instructions recommend, will result in a decent throw of approximately 60 feet. One can achieve a far greater toss by continuing to rotate the stick as fast as possible for about five more seconds before releasing. Don't wait too much longer however, lest the point of diminishing returns is reached, whereupon the caveman athlete will rapidly begin to lose strength.

Dino Race

In the next event, the player must jockey his dinosaur to the finish line while jumping over any obstacles in his path. Once the race begins, jiggle the joystick to the right and back to center as fast as possible. There is no need to build momentum slowly in this race; a quick pace must be maintained throughout the entire sprint in order to achieve a winning time.

The key to a successful run lies in timing the jumps correctly. Keep in mind that when the button is pressed to initiate a jump, the caveman must swing and hit the dinosaur with the club *before* the beast will jump. This lag in time must be accounted for by pressing the button when the dinosaur is still a good two or three inches away from the obstacle to be vaulted. Should the jump be missed, quickly jab the stick left to back the dino up and take another run at it.

The turbo feature, which gives the dinosaur a short-term power surge, can be used only two times in a race. If it is attempted

a third time, the poor dinosaur will become confused and run in the wrong direction, costing valuable time.

Saber Race

The saber race is a pretty straightforward event. Players try to run as fast as possible to avoid being eaten by the hungry tiger. The only trick here is to jiggle the stick left and

right quickly and evenly. A poor rhythm will result in a slower run and will cause the caveman to stop more often to catch his breath.

When jumping a puddle or a cactus, use the same anticipation jumping technique described in the dino race, because there is a delayed reaction in this event as well.

Dino Vault

The dino vault is by far the most challenging event in the Ugh-lympics. Start by synchronizing the footsteps of the Ugh-lympian with the audio clicks. The timing

must be perfect or the clicks will not speed up. If the steps are right on target, the clicks will come faster until full speed is attained. If the player falls out of synch with the clicks for even a second, the runner will slow down.

Once the edge of the ravine nears, press and hold the button to place the pole. Now here is where it gets tricky. The instructions tell the player to release the button just before the pole is fully extended. If this is done, the caveman will end up in the ravine every time. Instead, release it the *instant* the stick begins to straighten out. This isn't easy at first, but once done correctly, it will become much easier in the future.

Clubbing

Clubbing has got to be the funniest of all the Ugh-lympic events. The player must pulverize his opponent in two out of three mini-events. In the initial intimidation stage, remember to move the stick in a random pattern. This will give the player a greater advantage once Stage 2 begins.

The secret to successfully bashing your opponent's brains out is to play the old mixup routine. In other words: Hit him with an overhead smash, then go to a knee bash, etc. If the same move is tried too many times, the computer will be less likely to allow a successful swing, and your opponent will probably get a free smash or two. Remember to press and hold the button to point off in the distance. This will make the other guy turn and look. Once he does, crack 'em one! Do not attempt this move more than twice, however, since it will fail the third time, and your opponent may end up getting in a few shots.

Fire-Making

In this event the player must rub two sticks together as fast as possible in an attempt to spark a flame. Once competition begins, jiggle the stick left and right until the meter turns red and sparks fall on the fire. The second the sparks hit the flame, stop rubbing and pull the joystick down rapidly a few times to cause the Ugh-lympian to puff on the sparks until they begin to ignite. Once this happens, all that is left is to move the joystick up and down to blow the smoldering wood into a fire. The key here is a steady rhythm. It is not a question of how fast one presses up and down that determines success, it's how smoothly the puffs are initiated. If the interval between the up and down stroke is constant for two or three puffs, the sparks will ignite. As a matter of fact, pressing up and down too quickly will cause the caveman to become dizzy, and time will be lost.

Finally, if your opponent is getting too far ahead, don't forget to press the fire button and crack 'em one with the stick. After all, this is prehistory so they don't have referees, instant replays or sportswriters to chronicle your questionable sportsmanship. ♟

—Frank Tetro

Go on the Warpath With Apache Strike

Activision

A ctivision's *Apache Strike* places the player in command of an AH-64 Apache helicopter. The mission: Destroy the Strategic Defense Computer, which controls enemy vehicles in three U.S. cities. The player must weave between skyscrapers and around bridges as he/she searches for the SDC. The helicopter is equipped with both machine guns and air missiles that must be used to destroy enemy tanks and choppers.

The object of each level is always to destroy the SDC; this is the only way the player can advance to the next screen. But while destroying the computer does end the level, it is not the quickest way to build up points. Instead of going straight for the SDC, try to use the radar to find it, and fly into the general area, destroying any enemy vehicles that get in the way. Once there, the rest of the enemy will come after the Apache. It is by destroying *all* enemy vehicles and *then* the SDC that the player is awarded a big bonus on each level. Make sure the enemy count reads zero before taking on the SDC.

Flying

At first, control of the Apache seems difficult and players tend to crash into the buildings often. It is easy to forget which color represents a building side and which is an opening, and players may inadvertently turn into a wall. To avoid this, try to fly in the lower half of the screen as much as possible in an attempt to keep the street in view. It is by looking at the street that one can determine where turns should be made.

Turning is also tricky business for the novice commander. The best way to make a turn is to wait until the building one wishes to turn by passes out of view to the left or right. The instant it vanishes from view, bank hard left or right around it. Turning either too early or too late will result in a wrecked chopper.

The Enemy

The enemy is comprised of tanks that fire up at Apache and airborne choppers that employ both machine guns and missiles. When faced with a tank, drop down low and wipe him out with either machine guns or a missile. Since the Apache has an unlimited supply of missiles, it's recommended that they be used prolifically, as only one missile is required to destroy an enemy. Machine guns will require two or three hits to accomplish the same task.

If a tank fires at the Apache, launch a couple of missiles and pull up immediately. Do not continue to engage a tank if the first two or three missiles do not connect. It's

It's the King of
COMICAL FIGHTING!

DUAL PLAY!!

A fun-filled kung-fu game for the whole FAMILY!!

With the Sword in your hand, there's nothing to fear!

Take the Gun Ball's bullets of fire!

KUNG-FU HEROES ™

It's the game you've been waiting for, and it's packed with excitement!

Grab the treasures to gain powers!

KA-POWWW

Punch rocks to get items and raise your power.

So this is the legendary sword!

Learn an assortment of moves that you'll need to survive.

COMING SOON!

Start practicing now!

For video game fans everywhere, the "KUNG-FU HEROES" nationwide game contest!

Here's your chance to be the hottest "Kung-Fu Hero" in the country! Practice hard and shoot for the stars!

IT'S A GRAND ADVENTURE IN A WORLD OF MYSTERY!

WH- WHAT'S THAT!

Who knows what wonders and enemies await you?

BATAM!

Either way, the excitement never stops!

AAAARGHH!

It's the huge and horrible monster, Uni!

GRRR RRR!

You'll need all your best skills to defeat him!

CULTURE BRAIN ™

wiser to swing back around and try again than it is to go down in a flaming wreck.

Helicopters that are coming at the Apache should be dealt with in a similar manner. Here it becomes even more important to pull up or down if the enemy fires because this time it's likely to be a missile instead of machine-gun fire.

When enemy helicopters approach from behind, the real fun begins and evasive action becomes critical. When the message center warns the Apache that an enemy chopper is coming up from the rear, immediately speed up and change altitude rapidly. Avoid flying at the same altitude or in a straight line for any period of time, as the enemy missiles will lock on easier. Try to fly over and under nearby bridges and around corners to lose the enemy and confuse the missiles. If done correctly, the enemy will break off, giving the Apache a chance to go on the offense.

Once all enemies are destroyed, head toward the SDC from a minimum of two blocks away. This buffer of flight space is necessary because a minimum of three missile hits are required to destroy the enemy computer, and without enough leeway, this otherwise simple task may inadvertently turn into a kamikaze mission.

Keep your nose up, your risks down and your chopper blades whirling, mates—it's a jungle out there! ♦

—F. T.

How to Be a Star at Starray

Logotron Recreation

Versions: Amiga, Atari ST

Starray is a *Defender*-type arcade game in which the player, as Starray, must navigate through seven hostile worlds. On each level, the object is always to protect the ground installations from being poisoned by the enemy landers. The player does this by flying Starray horizontally either left or right, destroying the enemy ships before they reach the friendly bases.

On each world, the player should concentrate on destroying the alien landers first. The motherships, air buses and other enemy aircraft are dangerous in that they may reduce Starray's shield power. However, since only the landers can end the game by destroying the friendly bases, they must be assigned top priority.

The radar screen is the key to stopping the landers before they can undermine the friendly bases. Landers can be detected by their flight pattern: They are the slow-moving blips arcing downward toward the bases. If a lander reaches a base, a warning beep will be heard, and the player still has about five seconds to reach the lander before the damage is done. From Level 2 on, friendly bases that have been poisoned must be destroyed before the game will allow Starray to proceed to the next level.

When firing at landers, it is best to take a one-shot-at-a-time philosophy, because some landers contain bonus capsules that may be inadvertently destroyed if one fires haphazardly. Instead, approach a lander by lining Starray up on the same horizontal level, using the radar screen as a guide. Once the

ship appears, fire once and get out of the path of any oncoming missiles.

It is stated in the instructions that all of the bonus capsules are designed to aid Starray in the quest to keep the bases untainted. The bonus capsule marked "P" for penetrating lasers may be of dubious assistance. Although it may seem nice to have the laser continue on after it destroys the enemy, this may work to the players disadvantage in two key areas: The laser tends to destroy any capsules the landers may drop after they are atomized; if Starray shoots a lander that is traveling along the ground, the laser blast will likely continue on, destroying a friendly base along with the lander.

As Starray proceeds, he will encounter rectangular ships known as air buses. Destroying these ships will free a flying capsule that, if grabbed before it falls, contains added powers for the player. Approach the air bus from the right side only, and fire when it is about two inches away. Since the capsules always eject to the right, this will send them right toward the player's ship. There is one trick here the instruction book fails to mention: Once in a while the capsule ejected will be marked with an "X." If this occurs, get out of the way quickly. These capsules will leech energy from Starray's shields.

The smart bombs are lifesavers because they destroy everything on the screen, which at times is extremely desirable. However, Starray has a limited number of smart bombs, so try to save them for the later worlds where they are *really* needed. Keep in mind that using smart bombs on the motherships or living crystals will simply destroy the ship and unleash the tiny inmates, which are much deadlier. Instead, blow the ship open, then use the smart bomb to wipe out those little beasties before they get near Starray.

The rest of the enemies Starray encounters may be fast or require good aim to destroy. Remember though, these are not Starray's main concern, unless of course they're about to ram him. One or two ships, like the radar interference satellites on Level 3, must be avoided altogether. Shooting these will temporarily mess up the radar, making Starray's job even more difficult.

Finally, a note for players who master games quickly: If *Starray* becomes too easy for you gunslingers out there, try turning off the sound, which will speed up the game, making it 23 percent harder to complete. Now *that's entertainment!* ♦

—F. T.

Turn Your Used Video Game Cartridges Into Cash!

- We pay the highest prices for your used video game cartridges: Nintendo, Sega, Genisis, Turbo Grafx-16 and Game Boy.
- We sell used video game cartridges. We also sell the hottest new video game cartridges.
- Largest used video game dealer in the world.
- Join our game club!
- Send self addressed stamped envelope for current titles and prices.

Place your Holiday order early!

SEGA is a registered trademark of Sega Enterprises, Inc.

NINTENDO is a registered trademark of Nintendo of America, Inc.

GENISIS is a registered trademark of Sega.

TURBO GRAFX is a registered trademark of NEC.

GAME BOY is a registered trademark of Nintendo.

Video Replay INC.

97 Sherwood Ave., Dept. CE12 Farmingdale, NY 11735

The Games That Shaped Video and Computer Entertainment

by Arnie Katz

Writer, editor, lecturer and game designer Arnie Katz knows the field from every perspective. Each month, his column takes readers inside the world of video and computer games. This time, he takes a look back at the milestones in electronic-gaming history.

Americans have little love for the subject of history, but they adore nostalgia. Many of the same people who don't know—or care—who was president before Nixon, spent last August wallowing in media memories of Woodstock on its 20th anniversary. History is very impersonal, but nostalgia is human and somehow comforting.

Prepare to be misty-eyed about another 20th anniversary. It will soon be two full decades since the first video and computer games lit up the screen. So don't think of this as a dry history lesson, but rather as a warm, personal look into the great games which shaped electronic entertainment during the last 20 years.

Reducing 20 years of disks and cartridges to a mere dozen isn't easy, even for someone whose editor has just introduced him as "Mr. Computer Entertainment." A paragraph explaining the selection seems in order.

This is not a list of the "best" games of all time, the ones I liked the most or even the biggest sellers. These are the 12 most significant designs, the ones which had the greatest influence on electronic gaming. Why a dozen? Well, I couldn't find it in my heart to pare it

down to ten. Now, let's get to those significant games.

The origins of *Pong* are shrouded in claims and counter claims. It is most likely that Ralph Baer invented this simple video tennis game while working on a Magnavox project aimed at developing contests that could be played on a home television screen.

Atari founder Nolan Bushnell reputedly saw the prototype and adapted the concept for the coin-op machine he hoped to market. He named it *Pong*. The instantaneous and overwhelm-

Impossible Mission

MicroLeague Baseball

AT BAT:
CANSECO
ON DECK:
MCGWIRE

OFFENSE:

PITCHING:
HERSHISER
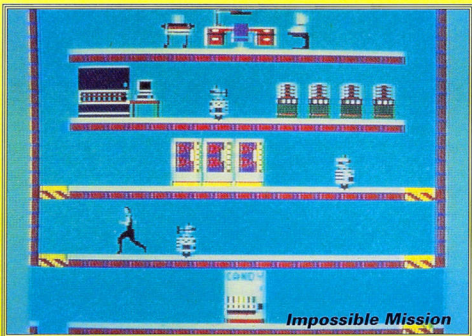
ing success of the first coin-op video game revolutionized the family amusement center and paved the way for the home video-game explosion. Once arcade operators saw the earning potential of videos, demand forced pinball giants like Bally and Williams to embrace the new technology symbolized by *Pong*.

It's fashionable to contrast the crudity of *Pong* with today's high-powered leisure-ware. No one could doubt the technical superiority of today's computer and video games, but don't dismiss good old *Pong* too quickly. Its elegant simplicity, two-player capability and excellent one-player mode made this an instant hit and timeless classic.

Space Invaders blitzed the American gaming scene in 1978 after taking over Japanese amusement parlors the previous year. The tramp of marching alien feet proved irresistible both in coin-op centers and in the home market. The game features a novel blend of mental and physical challenge: Players need both a fast hand with the horizontally movable cannon and a cogent strategy for wiping out the columns of creatures before they reach the bottom of the screen.

Space Invaders launched the Japanese video-gaming industry. It pushed Pachinko out of its long-held position of dominance and laid the foundation for the video-game renaissance of the mid-1980s that gave us the Nintendo, Sega and NEC cartridge systems.

The *Pac-Man* coin-op gobbled up quarters at a record rate by expanding the market to include adults in general and women in particular. It is a perfect introductory game. *Pac Man* is so easy to learn and play that almost everyone can clean the first maze or two, yet the intricate movement patterns of the four pursuing ghosts open the way for complex strategy. The late Ken Uston's books and tours focused national attention on *Pac Man* and convinced millions that they could beat this video game without fear of humiliation.

Pac-Man also rates among the most significant electronic games because it ignited a craze. It spawned a slew of licensed tie-ins, including a board game, cartoon show, lunchbox, T-shirt, breakfast cereal and baseball cap. The original maze-chase also fostered several sequels, beginning with *Ms. Pac-Man* and continuing with this

PAC-MAN
THUNDER MOUNTAIN
Pac-Man
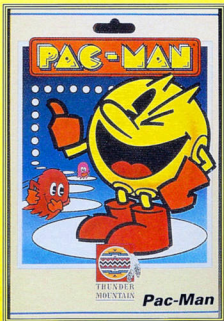
year's *Pac-mania* (Activision for most computers).

Williams Electronics' *Defender* captured the hearts of the arcade aces with its breathtaking action. Saving humanity's last survivors is tough work, because the aliens keep busy even when they aren't visible on-screen.

Defender is also one of the most imitated games of all time. Its influence on everything from Sega's *Fantasy Zone* to Broderbund's *Choplifter!* qualifies *Defender* for any list of gaming milestones. It popularized essential gaming elements like duo-directional scrolling, wrap-around playfields and the secondary display window ("radar screen").

Zork (Infocom for all systems) transported the text adventure out of kindergarten and made it fit for adults. Until Dave Leibling and Mark Blank introduced the *Zork* parser, most adventures

Defender of the Crown

were terse collections of puzzles, devoid of nuance, depth and flexibility.

In the pre-*Zork* era, adventurers "talked" to the game by typing two-word, verbnoun phrases. The Scott Adams-style games force the player from one puzzle to the next, pinning him or her like a fly in amber until each is solved in linear sequence. *Zork* let adventurers wander freely through a vast underground empire and have encounters in any order. The *Zork* parser can interpret full sentences, which allows more complex puzzles than previous programs. Computer adventures already had a modest following before *Zork*, but Infocom's groundbreaker made the text adventure one of the most widely played types of home-computer software.

Flight Simulator (subLogic for all systems) takes a long time to learn properly, comes

weighted down with documentation the size of the telephone book and contains no combat or other form of conflict. It breaks every rule of game design except one: It is riveting, addictive fun.

Author Bruce Artwick proved with one brilliant stroke that the computer could present an intricate simulation of a real-world event with utmost authenticity. *Flight Simulator* set the standard for completeness and accuracy in entertainment software and earned the respect of many who never thought computer games would advance beyond arcade-style action.

Lovers of fantasy roleplaying games (RPG) had six characters in search of a program author until Greenberg and Woodhead concocted *Wizardry* (Sir-Tech for IBM PC, Apple, Commodore 64 and Macintosh). Drawing on the mechanics
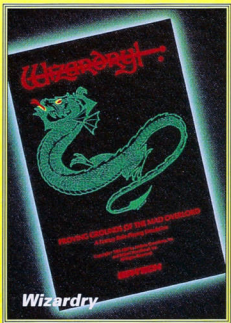
Wizardry

of non-electronic RPGs like Dungeons & Dragons, it enables the gamer to send a party of six diverse heroes and heroines into an underground labyrinth full of monsters, traps and treasures.

Wizardry singlehandedly established the computer RPG category. Its basic structure, including the multiwindowed screen layout, closely relates *Wizardry* to such illustrious programs as *The Bard's Tale* series (Electronic Arts for most computers) and *Might & Magic* (New World Computing for most computers).

Every list should have one unexpected selection, and *Smurf Rescue* (Coleco for Colecovision) is mine. This almost forgotten licensed product, based on those lovable little blue critters, is the clear ancestor of the current generation of video games. It is the bridge between the two great eras of video gaming.

The player controlled a plucky Smurf hero who had to survive a series of side-perspective action games to rescue the kidnapped Princess from Gargamel's castle. Climbing and jumping were the major activities in this lushly illustrated quest that sowed the needed seed for the late 1980s videogame boom.

Bill Hogue's *Miner 2049er* is more important for the way it changed computer

entertainment than its excellence as a game. And that is really saying something too, because this multi-screen arcade romp drew unanimous praise from critics and players.

Skillful marketing, under the direction of Barry Friedman of International Computer Group, allowed the multi-screen action romp to score a pair of notable firsts. *Miner 2049er* became the first game to be published for all systems and was the first released in all computer-using countries around the world.

We take multiple editions and imported designs for granted in 1989, but they didn't exist until *Miner 2049er* showed the way. Before this multi-screen contest, competition among home-computer manufacturers divided electronic gamers into isolated camps. They couldn't play the same software because each brand of computer had its own string of exclusive titles.

Miner 2049er changed everything. It shattered system barriers to create one unified hobby. Now all computer gamers share common ground. They can discuss the latest releases, swap tips and share similar play experiences. And thanks to the development of international software, Americans get to see the best new games in the world, not just the homegrown ones.

Impossible Mission (Epyx

Flight Simulator

for most systems), introduced about the time the U.S. gaming business went into its mid-decade slide, set no sales records. The reviews were

Your greatest challenge lies ahead—and downwards.
Zork
Zork
INFOCOM

favorable, but restrained. Who could have guessed that this climbing and jumping game would seize the imagination of British computing and dominate that country's game publishing for the next five years?

Impossible Mission blew the minds of the emerging generation of young, inventive designer/programmers overseas. Under its spell, they churned out imitations; each boasting more locations, more puzzles and just about the same play-mechanic. Over 500 elaborations and variations on the *Impossible Mission* idea have reached market. Now, *that's* what I call influential!

Barry Morstain struck a mighty blow for computing when he created *Micro League Baseball* (MLSA for most computers). Players of tabletop statistical-replay sports simulations jeered at early attempts to emulate those contests on the computer, but they had to take *MicroLeague Baseball* seriously.

Virtually all previous baseball programs imitated the electro-mechanical baseball machines popular in the arcades during the 1950s and 1960s. The stat simulations which preceded *MicroLeague Baseball* had no audiovisual appeal, and the numbers weren't too sharp, either. Morstain's design was on a mathematical par with the leading non-electronic simulation, yet it had full-screen graphics as good as any arcade-style game.

Many were skeptical when Bob Jacob proposed com-

puter games with the intensity and impact of movies. *Defender of the Crown* (Cinemaware for all computers; Ultra for the NES) established the Cinemaware approach as the hottest thing in entertainment software. The sound, artwork, production and overall quality of *Defender of the Crown* surpassed all previous efforts. The strategic phase of *Defender of the Crown* hardly differs from a dozen older medieval-warfare programs. What made this a pivotal program is the way it puts the computerist into the thick of the excitement with arcade modules. The joust is especially successful at plunging the game player into an interactive movie. Maintaining that immediacy is the primary goal of most current designers and developers.
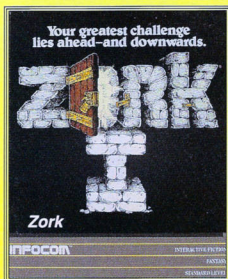
The development procedure used for *Defender of the Crown* showed the rest of the field a new way of doing things. Cinemaware's celebrated thoroughness and concern for even the most trivial aspects of the design proved that "quick and dirty" isn't the only way to publish profitably.

That's my dandy dozen. I'll bet you've got yours too. Send me your lists, care of VG&CE, and let's see what the rest of you think. If there's enough of a response, I'll present the results in a future column.

Mean Streets

An Interactive Detective Movie

It's the year 2033. Your name is Tex Murphy, private investigator in San Francisco. You've been hired by the beautiful daughter of a university professor to uncover the facts about her father's death.

As you begin your investigation, you uncover the deaths of several prominent members of the scientific community. Are these deaths coincidental, or is something more sinister going on?

- You will interact with more than 27 characters which animate and respond to questions, bribes and threats.
- Some characters actually talk. This spectacular effect is achieved by synchronizing digitized animation with *Real Sound*™.
  - You'll crack high-tech security systems.
  - You'll rummage through offices, warehouses, and factories as you search for vital clues.
  - You'll risk your life in action-packed shootouts.
  - You'll fly to major cities along the west coast in your Lotus speeder. This land and air vehicle is a full 3-D solid-fill flight simulator.

Mean Streets features *Real Sound*™ our own proprietary technology that allows MS-DOS computers to play high quality digitized sound effects, music and speech WITHOUT HARDWARE.

Real Sound™

ACTUAL 256 COLOR VGA SCREENS
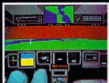
ACCESS
SOFTWARE INCORPORATED

545 WEST 500 SOUTH, BOUNTIFUL, UTAH 84010
(801) 298-9077   1-800-824-2549

Illuminating Gamedom for Almost a Decade!

by The Game Doctor

The Qs have been queuing up at my door since late last night in order to get a good position, but before we get to our first inquiry, I have a couple of intelligent and helpful letters I'd like to share with you all.

Q: In the July issue of VG&CE you were taken to task by an Atari ST owner who was identified as "Carl" in your response. I'd like to make a quick comment or two concerning your dialogue if you don't mind.

I'm an ST owner myself. I wouldn't trade my 1040ST for any fancy 80286 machine, but that doesn't mean that I'll talk down machines other than my own. It seems to be vogue these days for owners of one type of computer to denigrate every other computer in the world. You know how it is—Amiga owners trash the ST, ST owners trash Macs, Mac owners trash MS-DOS and they, in turn, trash the IIGS. Sort of a waste of time, isn't it? What I have to say is probably *not* going to make a lot of ST and Amiga owners happy, but face facts, guys: We own incredibly good computers, but *neither* machine will ever reach the market penetration of either MS-DOS or the Apple II family formats.

But do they *have* to? Most definitely not! When people ask me what computer I own I get one of two responses: 1) "That's a great machine. I wish I could get one, but since I use IBM at work it makes sense for me to get a clone of some sort." 2) "I didn't know Atari still made computers." Amiga owners I know tell me that their question number two is: "Who makes that?"

The bottom line, folks, is this: Are you happy with your computer? If not, sell it and buy another type. ST and Amiga owners have access to tons of software, even if it does come mainly from overseas. Who cares where it comes from? And who among us can afford to buy everything that comes out, anyway? I have more games and productivity programs than I have time to use.

—Steve Nichols

A: Words of wisdom, Steve, and well spoken. Alas, this partisan mind-set has afflicted the computer and video-game scene since its earliest days. I remember well the late '70s, when Apple owners could always get a rise from members of the "enemy" TRS-80 camp by calling their system the "Trash-80," while the Radio Shack devotees did their best to portray Apple-polishers as subhuman fiends who in all likelihood devoured their own young.

To this day, letter writers regularly inscribe legends such as "(System A) Rules! (System B) stinks!" on the back of their Qs. Come on, guys, you don't enhance your own computer by putting down every other system. What we have in common is much greater than any miniscule differences in our consumer preferences. Gamers unite, you have nothing to lose but your tangled wires!

Now, let's move on to a letter from a reader that sheds a bit more light on the question of old C-64 disk drives.

Q: I'm writing in response to a letter in the July 1989 issue of VG&CE by Jim Batson of Clarksville, Tennessee, concerning making a Commodore 1541 drive read both sides of a floppy disk.

The Commodore specialist you consulted with is dead wrong in his reasoning for the problem of reading a second side of a floppy disk. First, I have several of the older flip-up style disk drives, as do most of the other Commodore enthusiasts I know. None of us has any trouble making disks double-sided by punching the hole in the side. I personally have over 300 public-domain disks that are punched to be read on both sides. I've had no trouble from any of them on any Commodore drive.

Second, the Commodore 1541 is unique in that it can read and write virtually anywhere on the disk. Many copy-protection schemes use just that feature of the drive to read tracks and sectors that a normal copy program can't. The drive is *actually* capable of placing the head on any of 80 tracks on the disk. Commodore engineers decided to improve the reliability of the drive by making the read-write head twice as wide as normal, thus limiting the number of accessible tracks to 40.

QUESTION & ANSWER

Each of these 40 tracks can begin on any half width of the track, and the stepper motor on the read-write head can be programmed to read then wherever they are.

Third, why would the drive need to read staggered tracks anyway? It sees the disk as just another single-sided disk, formatting, reading and writing to it as if it were right-side up. The only difference is that the disk turns the opposite direction in its jacket from normal.

Mr. Batson is probably experiencing one of several simple problems with his attempts to double his disk space. The first concerns the placement of the notch. It must match the original notch position when the disk is flipped. There are a multitude of disk notchers on the market, or a standard one-hole paper puncher will work if you use another disk as a template.

The second problem may be not flipping the disk for access to the other side. The 1541 is a single-sided drive, reading only from the underside of the disk. There is no read-write head on top, so the disk must be flipped to access the other side, behaving as just another single-sided disk.

The third problem is the simplest of all, but not always obvious to new users. The back side of the disk must also be formatted before it can be used. Just because the front is formatted does not mean the back is, as in double-sided drives where the format command affects the entire disk.

I hope this helps Mr. Batson. The doubling of floppy-disk space saves money and storage room, with no appreciable detriment to disks or drives. As a side note, there were a number of modifications made in the 1541s. The majority were circuit-board style changes, but there were a number of different versions of drive ROMs installed. The change to a lever door versus the flip-up door was just that—a door change. All oth-

er aspects of the drive remained identical at the time. The 1541 was the first truly programmable drive and has been the basis of most Commodore copy-protection schemes.
—Jeff Cochran
Cohoes, New York

A: Thanks for the help, Jeff. Now maybe you can shed some light on why James and Rhea Meurer can't boot C-64 software that employs the *V-Max* fastload program. We've yet to get a sensible answer on this question but hope to have some word from the makers of *V-Max* by next month. What about you folks? Anyone else have a problem loading *V-Max* software?

Okay, now let's see if we can squeeze in a couple of quick Q and As.

Q: I recently read about NEC's new TurboGrafx-16, then in the August issue of VG&CE I read about the Sega Genesis, and the article said it was the first true 16-bit console in the technology race. What does it mean by the first true 16-bit console in the technology race?
—Randy Nelson
Palm Springs, California

A: It is the Doc's understanding that the TurboGrafx-16 employs a 16-bit graphics processor but only an 8-bit main processor, whereas the Genesis has the full 16-bit processing for all functions.

QUICKIES To Daniel Silber: There *are* stores that rent Sega, as well as Nintendo cartridges, but because of the disparate penetration of the two systems, retailers are reluctant to give over limited space to Sega carts when they could put in twice as many NES games. . . . To Rich Duggal: The Doc can't tell you which system to buy. Nothing is guaranteed in this business, and the only sure way to avoid getting stuck with a doomed system is to simply wait for the dust to settle and see which of the 16-bit video games will dominate the market—of

course, you'll miss a lot of great game-playing in the interim. . . . I now have several sources for Vectrex games, so anyone interested should write me, and I'll pass on the names and addresses of users willing to sell their collections. Also, Bob "Super Shopper" Gauss recommends visiting your local Toys 'R' Us. . . . To John Finke and the other readers interested in becoming game designers: The best way to contact a design group is to select the games you like best that most closely reflect the type of game you want to help create. Check out the credits, and then write to the development group in care of the publisher. . . .

LAST LICKS If you'd like to see *your* question asked and (we hope) answered, send it, along with any comments you might have, to my *new* address: **The Game Doctor**, 330 S. Decatur St., Suite 152, Las Vegas, NV 89107, and I'll see you all next month!

BAD DUDES MAKES DOUBLE DRAGON PALE BY COMPARISON

Ask anyone who's played them both in the arcade. Bad Dudes is clearly the game of choice. It's no contest.

BAD DUDES has better graphics. Better action. Better playability. From the arcade to the Nintendo to computer formats, you can count on a better game with BAD DUDES. And we're even available on more systems than they are.

The joystick play is incredible—fast, smooth and responsive. And the game play and graphics of the home versions are amazingly true to the arcade original.

Check it out for yourself. The martial arts excitement of BAD DUDES makes Double Dragon play like a dinosaur. One soon to be extinct.

BAD DUDES. From Data East. Now available on Commodore, IBM, Tandy, Amiga, Atari ST and Apple II personal computers and the Nintendo Entertainment System.

DATA EAST

1850 Little Orchard Drive, San Jose, CA 95112 (408) 286-7074
CIRCLE #176 ON READER SERVICE CARD.

CLASH AT DEMONHEAD ™

Challenge. Defeat the grotesque and vile keepers of the medallions!

Challenge. Escape the molten lava pits and searing heat beneath the earth's crust!

Challenge. Speed through labyrinthine caverns and subterranean springs!

Challenge. Solve the riddle of the medallions!

Challenge. Disarm the Doomsday Device that looms over Demonhead!

MAIL THE COUPON BELOW FOR INFORMATION AND A CHANCE TO WIN A FREE GAME

THIS GAME IS LICENSED BY NINTENDO® FOR PLAY ON THE

Official Nintendo Seal of Quality

VIC TOKAI INC.

22904 Lockness Ave., Torrance, California 90501 / TEL: (213) 326-8880
Nintendo ® and Nintendo Entertainment System ® are trademarks of NINTENDO OF AMERICA INC.
Clash at Demonhead is a trademark of VIC TOKAI, INC.

CIRCLE #177 OR READER SERVICE CARD.

ALL-PRO BASKETBALL™

- 2-Player Ready!
- Tournament Mode
- True 5 on 5 Game Play
- Slam'n Jam
- Player Substitutions
- Player v.s. Player Mode
- 2-Players v.s. Computer Mode

ALL-PRO BASKETBALL. WHEN IT'S TIME TO GET SERIOUS

THIS GAME IS LICENSED BY NINTENDO ® FOR PLAY ON THE

Nintendo ENTERTAINMENT SYSTEM®

Official **Nintendo** Seal of Quality

MAIL THE COUPON BELOW FOR INFORMATION AND A CHANCE TO WIN A FREE GAME

VIC TOKAI INC.

22904 Lockness Ave., Torrance, California 90501 / TEL: (213) 326-8880

Nintendo ® and Nintendo Entertainment System ® are trademarks of NINTENDO OF AMERICA INC.
All-Pro Basketball is a trademark of VIC TOKAI, INC.

CIRCLE #178 ON READER-SERVICE CARD.

Might and Magic Book II: Gates to Another World

New World Computing

Versions: Apple II ($49.95), Commodore 64 ($39.95), IBM PC ($49.95)

On your travels through New World's *Might and Magic Book II*, the world of Cron is viewed in superb 3-D perspective.

It is, unfortunately, inevitable that your party will face the attack of a band of vicious beasts who will test your mettle to the extreme.

Adventuring in the grand style is rapidly coming of age on the computer screen. There are so many "roman numeral" games now that adventurers could spend all their gaming time exploring already-familiar worlds and game systems. Fortunately, the usual reason for this repetition-prone syndrome is the excellence of the original creation. This is certainly true in the case of *Might and Magic II*. It echoes its predecessor with excellent graphics and an incredible variety of possible locations and encounters.

Not all the superb graphics are on-screen. The 64-page, slickly printed and profusely illustrated manual is accompanied by a full-color map of the World of Cron. This map justifies the often over-used phrase "suitable for framing." The major coordinates provided are useful when the parties venture out into this amazingly detailed world. Specific localities have coordinates of their own, once the game is under way, though it takes special skills and spells to make significant use of them.

Cron is no mere section of some imaginary Earth. Its history includes the magical world's creation amidst the conflicts of powerful beings whose domains are the elemental forces of air, earth, water and fire. Only relatively recently has this land been settled by man, or more accurately, by humanoids. The ranks include those races from whom adventurers may be selected: humans, elves, dwarves, gnomes and half-orcs.

The history of the land is no mere backdrop. Not only does the

world of Cron range wide in physical size, but travelers may pass through time into past eras as well. In fact, this time-traveling is actually necessary, though the interval the company of adventurers will spend in any other century than the game's present (the 10th century) is limited and random.

Parties can include eight individuals (including up to six created characters or seven hirelings). A set of six preprogrammed characters is provided for the new player, but up to 24 may be created and stored per disk. In addition, the gamer can store 24 hirelings, who are not created but employed after certain levels are reached.

Created characters are rated by class, race, alignment and sex, in order of significance in terms of abilities. Detailed profiles of all characters can be viewed at the beginning and end of play sessions. Overviews of the companions in the venture are available at all times.

Tantalizing hints of the major goal are included in the manual's Prologue and in the History. However, the gamer begins play with no forewarning of any specific goal to be reached. Numerous quests,

varying in degree of danger, are available. During these quests, over 250 types of monsters may be encountered, ranging from supremely dangerous to helpful.

As the player travels around Cron, rumors reach his ear with increasing frequency. They foretell a great disaster, then chaos and havoc begin to sweep through the land. The gamer must try to disprove the rumors or avert the disaster. This leads to trips through time to try to cure ancient wrongs.

Adventurers have an arsenal of RPG (role-playing game) standards to help them along, as well as some new player aids. The world consists of rivers, forests, castles, dungeons and cities spread over 60-plus maps. There are more than 200 items, including weapons, magic items and other objects, and more than 90 spells. The best innovation is something I hope other game systems will adopt: An auto-mapping feature records each area as the player travels through it, releasing the gamer from this onerous chore.

The graphics support the capabilities of each computer version and are quite lovely, featuring views of the world, its people and creatures. On IBM PCs, 16-color graphics are available for all but Hercules and CGA-restricted cards. Tandy 16-color graphics at 320×200 resolution are supported. The CGA four-color graphics are, as usual, limited, offering purple faces and flames as the norm. The Apple version features highly detailed, double high-res graphics in glowingly realistic hues.

The party's location is shown on-screen in a 3-D perspective, with menu options surrounding the oversized window. The location actually consists of an area 16 squares wide and 16 deep, but the viewing area is limited to 3×4 squares, less if something blocks the view. This provides a quality of dreamlike frustration, since buildings and walls seem to appear out of nowhere when an on-screen character moves toward a seemingly unobstructed horizon.

This sense of unreality is further enhanced by a portentous pause in activity when any encounter occurs. First there is an empty room or square. Then an animated scene illustrates the monster(s) or depicts the establishment just entered. When the business of the moment is concluded, the image vanishes, again leaving an empty room in view.

Might and Magic II: Gates to Another World is an outstanding sequel that continues the tradition of the original, even while it makes substantial improvements. The flavor and feeling of the environment are well captured throughout. Role-playing gamers should enjoy enmeshing themselves in this delightful world and its history.

—Ross Chamberlain

**New Worlds Computing
Distributed by Electronic Arts,
1810 Gateway Dr.,
San Mateo, CA 94404; (800) 245-4525.**

Steel Thunder

Accolade

Versions: Commodore 64/128 ($29.95),
IBM PC ($39.95)

Land warfare has always been at the forefront of any war. The usefulness of the Navy and Air Force is certainly not questioned, but it is the land troops that ultimately go in and occupy territory. Strategists who might otherwise keep their heads in the clouds or their big guns out at sea are attracted to this down-to-earth type of conflict by the inevitability of army involvement in any warfare. Currently an invasion of new top-quality land war simulations have the armchair generals slugging it out on the silicon beaches.

Steel Thunder is a real-time simulation of modern land warfare that puts the player in control of one of America's foremost fighting vehicles. It gives a fine command opportunity, but it pares away all the unappealing aspects of land warfare. That's the best thing about computer war games: no blood and mud, just the guts of the game!

Play begins at the sentry's gate. The proper password, some information from an included chart, must be given here before proceeding. Then the player goes to the general's office to choose which mission to attempt.

Only Cuban missions are available to low-level commanders, but as a player advances in rank, scenarios in the Middle East and in Western Europe open up for play. The warrior gets these promotions by completing increasingly difficult missions. After receiving a higher commission, the officer can still attempt a lower difficulty mission just for the fun of it, or to practice strategy with no loss of rank.

Next comes selection of the vehicle and its three crew members. Four armored vehicles are available: the M1A1 Abrams Main Battle Tank, the M60A3 Main Battle Tank, the M3 Bradley Calvary Fighting Vehicle and the M48A5 Patton Battle Tank. The player then picks soldiers with the best skills for the mission at hand to fill the positions of driver, loader and gunner. Finally, the player views, and may vary, the actual weapon and armor load of the chosen vehicle.

Following these preliminaries, the action begins. Starting at his own base headquarters, the player must quickly reach the objective area, accomplish the goal (such as destroying an enemy artillery battery) and then return to base for debriefing, all without getting his tank shot out from under him.
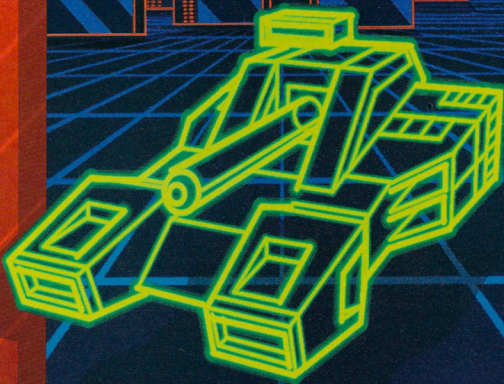

Accolade's Steel Thunder *gives you a real-time taste of land-based combat on various battlefields throughout the world.*
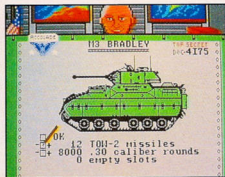
Steel Thunder *puts you at the wheel of one of the most powerful modern tanks, such as the M3 Bradley Calvary Fighting Vehicle.*

OMEGA

Neural Cybertank Design and Simulation

Cybertank engineers control the destiny of the Organization for Strategic Intelligence. They're the heart of the **OMEGA** Project, a classified military contract that's shaping combat's future. Employing tomorrow's technology, OSI cybertank engineers design the chassis and artificial intelligence (AI) for the next generation of neural armored warriors—and they gauge their success on a simulated field of battle. Join these elite ranks, and pit your designs against the world's best.

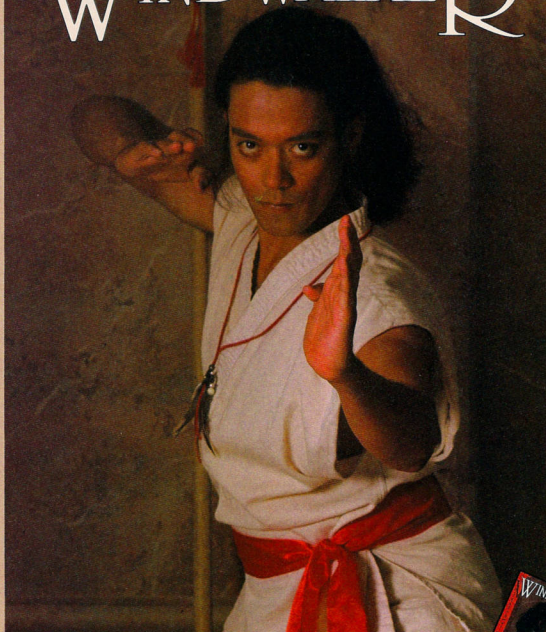IBM/COMPATIBLE VERSION   IBM/COMPATIBLE VERSION   APPLE VERSION
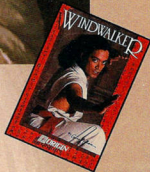
ORIGIN
We create worlds.™

CIRCLE #179 ON READER SERVICE CARD.

WINDWALKER ™

Journey into the past and explore the fascinating culture, the diverse personalities, and the intriguing events of the ancient Orient. Recruited by Moebius, the **WINDWALKER**, you begin as a lowly fisherman, but soon rise to the heights of wisdom and mastery of the martial arts. Possessing the discipline of a leader and the spirit of an adventurer, you've dedicated your life to the pursuit of virtue.

IBM/COMPATIBLE VERSION   IBM/COMPATIBLE VERSION   APPLE VERSION

ORIGIN ™
We create worlds.™

Three different stations on the tank require manpower during mission execution. While his primary role is commander, the player can take over detailed action of the driver or the gunner at any time. Sometimes this only requires a quick check to see that all is in order, but at other times the player must control fire at a particularly nasty enemy or precisely maneuver the tank behind a hill for some cover. Although the player can gain much proficiency in each area, the computer crew performs very well and can often be allowed to carry out the commander's orders with minimal intervention.

Two primary views are used during play. The overhead map screen shows the layout of all forces and, when known, the exact type of each formation. The player can mark up to two milestones on this map to help guide his driver safely to the object area.

Most game play occurs in the main view. The bottom half of the screen shows the settings of a variety of informational lights and knobs that indicate the status of the tank's various systems. Each crew position shows different indicators, all appropriate for the currently active station.

The top half of the screen contains a view of the outside world in a style similar to the cockpit view used in most flight simulators. This area also includes a circular, periscopic close-up of the current aimpoint.

The visual displays are very well done and take advantage of the graphics capability of the computer. For example, the EGA artwork on the IBM PC version is clear. The graphics are so good, in fact, that a player may even find himself bouncing up and down with the view as the tank drives over rough terrain. The sound, though obviously limited by the machine's capabilities, is also well done and complements game play.

Primary player input during play is through the keyboard. A joystick can control the vehicle's motion, but the arrow keys work equally well, and most players will prefer to use keyboard control exclusively.

While it may be questionable that any one vehicle in the U.S. inventory could actually go head-to-head with so many Soviet vehicles on a single mission, this seems a minor quibble. The game becomes significantly harder at higher levels, which serves to minimize this bit of unrealism without sacrificing game-play value.

Steel Thunder is a very playable tank-commander game. It puts the silicon soldier in command of wonderful heavy armament that's easy to control, while it takes the mud out of land warfare.
—R. Bradley Andrews

**Accolade, 550 S. Winchester Blvd.,
San Jose, CA 95128; (408) 985-1700.**

Gauntlet II

Mindscape

Versions: Amiga ($49.95), Atari ST ($49.95),
Commodore 64 ($29.95), IBM PC ($39.95)

The entertainment world seems dominated by sequels, and the software scene is no exception. "Roman numeral games" are popping up everywhere, as manufacturers go back to proven wells hoping for another bucket of green. Well, it's time for the inevitable sequel to the hit multi-system software adaptation of Atari/Tengen's coin-op smash, *Gauntlet* (Mindscape). Unlike movies, however, where sequels are generally mindless

recapitulations of the more commercial aspects of the original, game sequels have a pretty impressive track record at bringing back popular titles for additional go-rounds. *Gauntlet II* is an excellent example of why.

Although the original *Gauntlet* tended toward mindless hacking, slashing and running away, the sequel has been fattened up with a generous collection of fascinating spells, bonus objects and fascinating puzzles. Once again, the valiantly powered warrior, wizard, elf and Valkyrie set off to conquer dangers and win treasures from a multi-chambered dungeon.

It is really a team effort because of the well-defined differences in the characters. While Thor the warrior is resilient and powerful, with an awesome battleaxe, he's somewhat plodding and not much use at magic. Merlin the wizard has no armor and no weapon with which to destroy generators (the constructs which produce the various monsters that go up against the player's character), but his magic is potent and his fireballs are effective from a distance, if not much use in hand-to-hand combat. Questor the elf is speedy, with a talent for magic, but his shot power is poor, and his dagger cannot destroy generators in hand-to-hand battle. Thyra the Valkyrie has the strongest armor and a sword which can destroy generators, but poor shot power and only moderate magical abilities.

The graphics are an upgrade, even on the excellent visuals of the original, and as a special extra attraction, digitized voice has been added. The vocal quality on the 16-bit systems (the ST and Amiga)


Based on its successful predecessor, Mindscape's *Gauntlet II* adds intricate puzzles, spell-casting and digitized vocals to the formula.

The graphics and sound of the Amiga and Atari ST versions of *Gauntlet II* are especially stunning as you go questing through the castle.

is astonishing, with a deep, burly voice welcoming each character at the start of the game ("Welcome, Red Warrior [or whomever]!") and warning them when their strength is waning ("Red Warrior needs food *badly*!"). But the highlight is definitely the announcement that occurs when the player's character picks up a special charm or amulet. The voice tells us: "Red Warrior now has deflective shots!"; or this reviewer's personal favorite: "Red Warrior *now* has temporary repulsiveness!"

Rick Dangerous
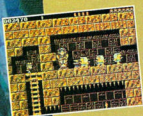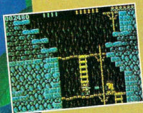
Action...Adventure...all that neat stuff!

Rick Dangerous lives for adventure. He often dies for it, too. Amazon tribesmen with poison blowdarts chase him through a South American temple. Ruthless assassins stalk him through an Egyptian pyramid. The Nazis just want him out of Germany before he causes too much damage.

Rick Dangerous, with four missions on over 100 screens of non-stop mayhem, is the most fun you'll ever have at your computer. Featuring arcade action, humorous graphics and amusing sounds, it's the perfect prescription for a life that's a little too serious.

Try the life of Rick Dangerous. Finally, a hero who lives up to his name.

Gauntlet II once again employs the familiar combination of side and overhead perspective seen in the original. While physical objects (the dungeon and all objects within it) are seen from a top-down view, all characters are viewed from a side perspective. The wide variety of characters, monsters and magical icons are drawn distinctly enough that they are all discernable at a glance.

No incarnation of *Gauntlet* is likely to break new ground in game design or concept, but this excellent sequel improves on the original in every way, creating a game which looks, sound and plays markedly better.

In the world of sequels, you really can't ask much more than that.

—**Bill Kunkel**

Mindscape Inc., 3444 Dundee Road, Northbrook, IL 60062; (312) 480-7667.

Desert Rats: The North African Campaign

Cases Computer Simulations

Version: IBM PC ($39.95)

Desert Rats is an enjoyable battalion-level strategic war game that is historically faithful to the events of the North African campaign, from the spring of 1941 until the withdrawal of General Erwin Rommel's Afrika Corps at the end of 1942. It can be played as a series of scenarios or as a 624-turn campaign. Some scenarios may be completed in as little as an hour, while the full campaign takes about 30 to 40 hours to finish.

The computer opponent behaves logically and provides challenges despite a certain degree of predictability; a few options add playability. The program permits altering the number of players during a game in progress. The level of difficulty is adjustable, depending on the "Malta Status." This reflects the impact Malta-based British air and naval forces had on the Axis flow of supplies to North Afri-

War-gaming fanatics will get a thrill out of *Desert Rats*' faithful re-creation of World War II's North African campaign.

ca. In the historical option, Axis resupply is very difficult. A second setting assumes that Operation Herkules, the Axis plan to capture Malta, was successful in the summer of 1942, thereby increasing resupply of Axis units during the latter half of that year. Another option assumes the British did not use Malta as a base; therefore Axis supplies are greatly increased throughout the game. This method of handicapping makes games possible between opponents of different experience levels.

Desert Rats emphasizes proper logistical-planning, recreating this aspect of warfare by forcing players to consider their supply levels for everything from assault planning to preparation of fortifications. Pressing an offensive with low supplies and fatigued troops, especially against units which are dug in, is one of the fastest ways to get overrun in this game. If the enemy supply lines can't be cut, it is better to keep your position until your supply levels increase, especially since monthly reinforcements may only go to units which have "hold" orders.

Just as in a real battle, it's not a good idea to bring fatigued troops into combat or you'll suffer heavy losses.

The thorough game documentation includes 16 pages of maps and historical background, but it's not necessary to read the entire manual to play. Units are represented by standard icons, but when stacked as a group, their types cannot be discerned. Available orders include three types of movement options: hold or fortify orders for units on the defensive; divide, which allows different units of a group to execute different orders; and report, which tells the units' supply, morale and efficiency statuses. The resolution of combat considers all these factors, as well as the terrain.

One of the most fascinating aspects of the North African campaign was Rommel's brilliant use of operational deception, such as his ploy of placing 200 wooden tanks at strategic desert locations to confuse the British high command. He was also a master of indirect approach: appearing strong where weak and vice versa. Unfortunately, *Desert Rats* loses something in the translation since it does not use a system of hidden movement.

Weather, which played a vital role in the actual operations, is not depicted in this game. Airpower is only simulated through the aforementioned "Malta Status" and has no direct impact on combat. In the designer's notes, R. T. Smith states that he tried to make the game as historically accurate as possible; any shortcomings are due to memory restrictions. This was understandable for the original Amstrad release overseas. However, these problems were not corrected for the IBM format.

The game also falls short in its handling of unit withdrawals. Players are warned when units are going to be sent home, but only on the turn immediately prior to their disappearance from the battle field. Consequently, players can quickly find themselves overextended when a front line unit suddenly departs for R and R.

Finally, the game's replayability is low. Once a computer warrior wins as the Axis in the historical option and as the British player in the "Malta not a base" option, the game no longer provides much of a challenge. This could have been overcome by a broader range

ONE MAN WIPED OUT EUROPE. NOW, HE'S HERE!

Andrew Hewson, arcade king of England, has just blasted his way across the Atlantic with three of the best space fantasy shoot-em-ups in the free world. Dazzling graphics, revolutionary sound and electrifying action will keep your heart racing!
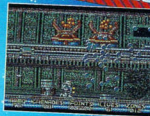
EXOLON Over 100 screens of pulse-pounding action! Loaded with firepower, you're a humanoid soldier blasting and battling your way through a horde of aliens on an enemy-infested planet.

NETHERWORLD Trapped on the Planet Purgatory, you fight your way through an endless maze of evil demons and fantastic magic, skinsearing acid bubbles and tormented souls who float in infinity, searching for the only thing that can buy you freedom: diamonds.

ELIMINATOR You're at the helm of the warship Eliminator, the most powerful fighting machine on this or any world, hammering down a highway where aliens wait at every turn, eager for the chance to make this mission your last.
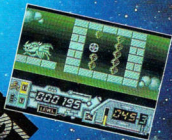
ALSO AVAILABLE IN AMIGA & COMMODORE 64/128 FORMATS

of available rule modifications or the use of scenario generators.

Even though *Desert Rats* boasts nothing particularly innovative in design, it's still a fun and engaging game. It provides the best emphasis yet on the importance of logistics in the North African campaign.

—H. E. Dille

Vette!—The Street Race Simulation

Spectrum HoloByte

Versions: Amiga ($49.95), Atari ST ($49.95),
IBM PC ($49.95), Macintosh ($49.95)

Flight simulators, take off. Roll over, tank simulators. And you submarine games can go soak your heads. Computer-software wizards have now recreated the *ultimate* in pseudo-dangerous living: a game that simulates a drive through an American city!

Vette! is the first attempt to create a sustained simulation of urban sportscar driving. Unlike the ultimately monotonous mountain highway of Distinctive Software's *Test Drive*, *Vette!* opens up the horizon by having the user drive—and even race—through the hilly and atmospheric streets of San Francisco.

Vette! is marketed as a car-race game, but it's just as satisfactory as a straight simulator. Users will certainly spend the first few play sessions exploring the roller-coaster streets, learning how to drive without peripheral vision and simply exulting in the delightfully vicarious experience of cruising through a major urban landscape in one of several hot sportscars. After years of flight simulators as well as being teased by *Test Drive's* realistic first-person presentation, it's a delightful novelty to drive through a real city, with shops, traffic, pedestrians and other interesting visual details every few yards.

Following the usual rigamarole required in preparing IBM PC software for actual use—formatting blank disk(s), installing system parameters and, as its own special bit of nonsense, installing write-protect tabs—a series of selection screens appear that allow the users to set difficulty and select a vehicle. Available wheels include four kinds of Corvette and four "opponents": Lamborghini Countach, Porsche 928S4, Ferrari Testarossa and Ferrari F40. The three levels of difficulty permit the user to either drive around San Fran or compete in a series of four different courses: San Francisco Zoo to the Golden Gate Bridge; Golden Gate to the Bay Bridge; Bay Bridge to the zoo; or the biggie, zoo to Golden Gate to Bay Bridge and back to the zoo again.

Vette! uses the realistic, behind-the-dashboard presentation pioneered in *Test Drive*. The urban visuals are absolutely astonishing

in their variety and detail, especially in the EGA mode (which, alas, can only be played on an AT system with a 1.2MB drive). Moving objects such as trucks, cars and pedestrians are rendered through the popular polygon-fill technique common in flight simulators and games like *Space Station Oblivion* and *Starglider 2*. This technique sometimes produces overly blocky graphics, but the polygon-fill work in *Vette!* is so subtle, differences among pedestrians can be distinguished (men, women, children and even a nun!). The CGA mode is flat-out remarkable—for CGA. The EGA graphics, however, set new standards in the world of computer software.

All the familiar San Francisco landmarks are here and instantly recognizable: Fisherman's Wharf, the San Francisco Zoo and the local bridges. An entire city is viably recreated within the confines of this computer program—a living, breathing city with people and taxicabs—and the experience of driving through it is communicated with amazing verisimilitude.

Vette! shows you it's bad enough to casually drive the winding roads of San Francisco, let alone race on them.

When you hit the road for the first time, you'll forget about the race for a while for some plain-and-simple cruising in your sportscar.

The game employs a play interface reminiscent of flight simulators, with a keyboard full of commands and gadgets, including gear-shifting, cruise control, automatic shift and a variety of alternative "camera" angles (including a top-down "helicopter" view). There is also a text-display to alert the player to the upcoming cross street and a Traffic Control Icon Area that substitutes for the lack of traffic lights and signs on the streets. The EGA version even boasts a rearview mirror.

Vette! should be a monster hit. It offers first-rate execution of a brilliant concept and should breed many scenery disks when Spectrum HoloByte takes the simulation on the road to other cityscapes.

—Bill Kunkel

Steve went to the hospital for minor surgery. He left with major problems.

Sleeping is supposed to be the easiest part of going under the knife.
But not for Steve. His dreams are trying to kill him.

To survive he must escape the sometimes frightening,
sometimes laughable phantasms burrowing through his subconscious.

Does major medical cover something like this?

Win Great Prizes with Medalist "Medal Madness" Starting September 1.

Presumed Guilty

Cosmi

Versions: Commodore 64 ($24.95), IBM PC ($29.95)

I t's 1996 and COPNET (Computer Operated Police NETwork), a new international database for police investigations, has just come online. Heralded as a major breakthrough in communication technology, COPNET promises the end of crime as we know it. Naturally, not everyone will be happy to learn of this development.

Players act as COPNET investigators, with access to most of the functions available on the network, including detailed DNA analysis for suspect identification. They're thrust into an investigation almost immediately when Ray Lamonte, a prominent scientist working on the Strategic Defense Initiative (S.D.I.), dies mysteriously in an auto accident. Although there is an obvious conspiracy afoot, with the tremendous resources available via COPNET, it should be a breeze to solve, right? Not so, as the Falcon will soon appear to frame the player despite his or her best efforts.

Fortunately, the player's location is protected by a twenty-digit pass phrase, so the game doesn't end immediately. While the player struggles against the clock to solve the murder and identify Falcon, his nemesis is hard at work deciphering the pass phrase that will end the game. Falcon's goal in framing the innocent player is to demonstrate the fallibility of COPNET and thereby cause a public outcry to have the system deactivated.

As a top-notch investigator in Cosmi's *Presumed Guilty,* you have the COPNET crime database at your fingertips to help you solve the case at hand.
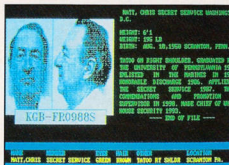
Among the many high-tech methods of eliminating suspects and determining the actual criminal, you can compare DNA "fingerprints."
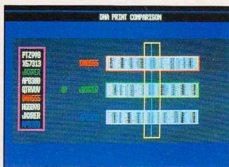
Game play is built around analysis of the information available and the input of requests for certain details to obtain further branches of the puzzle. In this respect, the game is somewhat linear. Certain events do not happen unless the player takes particular actions. For example, Falcon does not begin to attempt to decipher the player's pass phrase until the player examines his own dossier. Consequently, it helps not to do so until absolutely necessary.

The types of information which may be analyzed include:
- Dossiers of an individual's history, traits and latest movements.
- Photographs from newspapers to satellite reconnaissance.
- Audio cassette of wire taps and other juicy tidbits.
- Classified government files related to the S.D.I. project.

The latter poses a secondary challenge, because the player must determine how to access these files. Three incorrect attempts result in a system shutdown, so it's not simply a case of input until an answer is found. Falcon will provide the access code, but only after he has solved 19 of the 20 digits required to locate the player.

If all of this sounds exciting, it should. The premise behind *Presumed Guilty* is soundly based in reality and is probably more prophetic than Huxley's concept of Big Brother.

Unfortunately, the game's execution lacks the same degree of finesse as its fictional environment. *Presumed Guilty* is an interactive graphic adventure in the style of its predecessor, *The President is Missing.* The graphic portion, consisting of digitized still photographs, is very attractive in EGA mode. However, in lower resolution CGA, the pictures are relatively useless.

Although play is fast paced and exciting at the beginning of the mystery, the middle of the game suffers from a lot of wasted real time waiting for results of previous investigations. Additionally, when the case is finally "solved," the dime-store detective wrap-up reads like a poorly written novel, with loose ends galore. This is truly unfortunate because of the potential inherent in the original concept.

But *Presumed Guilty* is strong in suspense. The closer you get to solving the crime, the closer Falcon comes to framing you. As time runs out, tension builds and Cosmi's toll-free help line becomes an almost necessary convenience.

The downside of the program is a group of minor flaws that decrease the player's pleasure. The pictures aren't too helpful if you don't have the EGA graphics board. The sound, which is rather loud, can't be turned off. There is almost too much information to absorb. The manual contains the details needed for play, and an audio cassette contains clues, news reports and surveillance conversations, some in foreign accents. It's a lot of data to digest. A workbook included with the disk is a big help. Unless the player painstakingly records the information received, there's little chance of remembering it all and organizing the details into a solution.

Cosmi has produced a number of fine products, but in this instance, they failed to meet the mark. *Presumed Guilty* is recommended only if your doctor prescribes more stress in your lifestyle.

—Ed Dille

Cosmi, 431 N. Figueroa St., Wilmington, CA 90744; (213) 835-9687.

Populous

Electronic Arts

Version: Amiga ($49.95)

I f flying jet planes, racing fabulously expensive sportscars and slaying magical dragons can't raise more than a polite yawn at your house, it may be time to explore the ultimate daydream. The Bullfrog development team, under the leadership of Peter Molyneux (see the interview on page 150), offers an action-strategy game that makes the computerist the god over an entire world.

Jim's about to disappear.
And he's going to love it. Because tonight he'll pilot the top-secret Air Force jet that radar can't detect — the F-19 Stealth Fighter.

With the awesome F-19, you'll plunge into explosive conflicts around the globe.

To start, you can choose a training mission where enemy weapons have no effect, or a "no-crash" mode that protects you from fatal errors. You can even select easy landings or weak enemies. As you sharpen your skills, you can take on the toughest missions in the world.

No flight simulator gives you more views of dogfights and bombing runs. Tactical View keeps both your plane and your target in view at all times, whatever your position.

Tonight Jim Quigley will fly over the Persian Gulf, become invisible, blow away two enemy MiGs and win the Medal of Honor.

Just for fun.

Inverse Tactical View shows your target up close with your F-19 approaching in the distance. And TrakCam locks onto and magnifies targets. All with the hottest Super 3-D Graphics you've ever seen!

You'll have detailed maps and a keyboard overlay, so you'll spend less time finding features and more time playing the game. And the F-19 manual psyches you for combat with incredible detail on training and equipment, stealth tactics, strategy, and real world situations.

F-19 Stealth Fighter is one more reason why we're the first, last and best name in combat simulations. So climb into F-19, strike deep into enemy territory, and disappear without a trace.

Just for fun.

F-19 STEALTH FIGHTER
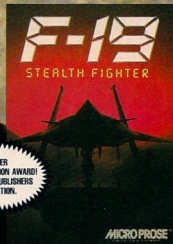
WINNER BEST SIMULATION AWARD! SOFTWARE PUBLISHERS ASSOCIATION.

MICRO PROSE

This stunning concept catapulted *Populous* to the top of the British software sales charts last winter. The real-time brain teaser could repeat its triumph here if it weathers the wrath of the same fundamentalist groups who previously attacked *Dungeons & Dragons* and other role-playing games as sacrilegious.

The computerist becomes a divinity of a primitive, undeveloped world. The Book of Worlds, in the upper-left corner of the main display, presents an electronic bas-relief map of the planet. The player clicks the mouse to see a more detailed view of the selected area in the diamond-shaped close-up map.

The playfield is bordered by three sets of control icons and the information shield. The shield shows the world's current level of civilization and the power of the good and evil forces. Control icons in the lower-left corner govern many of the game-play functions. These include arrows to scroll the close-up map. One bank of icons locted here lets the player instantly zoom to a leader (settlement or designated opposition), and another group facilitates various types of divine influence.

See how you fit in the shoes of a god, as you take control of your very own land in Electronic Arts' popular game *Populous*.

The icons of the manna bar allow the player to directly intervene in world events. The player can raise and lower terrain to make it more (or less) hospitable, instigate natural disasters such as floods and volcanoes, create a holy knight to battle with enemies, establish a papal magnate to draw the faithful together or even unleash Armageddon. The more energy the deity has, the more powers he or she controls. A god in *Populous* is powerful, but far from omnipotent.

Finally, a small group of icons in the lower right-hand corner governs game functions. These enable the computerist to load, save and pause games, change parameters and handicap the superior player if there is competitive imbalance.

In a short preface, the documentation explains the source of divine power to prospective deities: "You have a group of followers from whom you derive your power. The more followers you have and the greater their achievements, the more power you wield." If it weren't for that other group just over the hill who had pledged its faith to a competing god, the whole onward and upward process would simply be a matter of time.

But the road to becoming the universal object of adoration is a rocky one in *Populous*. The computer-directed foe is quite adept at promoting the growth of its own followers while frustrating the player's flock with natural disasters and invasions by deadly evil knights.

If solo play isn't enough, there are two ways to compete against another human. *Populous* is playable over the modem or between two machines linked by a "null-modem" cable.

Populous is no "boot and bash" program. Although events progress fast enough to please any gamer, it takes practice to learn the icon layout and manipulate the icons skillfully. The designers have recognized the challenging nature of the game in several ways. The main documentation guide, a solidly packed 36 pages, includes both a step-by-step tutorial and a section of helpful questions and answers. The disk itself includes a demonstration, though it's most helpful after reading the rule book.

The subject matter of *Populous* guarantees that it will be a controversial game to many. Hopefully, this won't keep the less narrow-minded from reveling in this mind-expanding, multilayered computer-entertainment landmark. *Populous* is a certified candidate for game of the year.

—Arnie Katz

Electronic Arts, 1820 Gateway Dr., San Mateo, CA 94404; (415) 571-7171.

Qix
Taito

Versions: Amiga ($34.95), Apple II ($29.95), Apple IIGS ($34.95), Atari ST ($29.95), Commodore 64 ($29.95), IBM PC ($34.95)

Taito's latest entry in the coin-op conversion sweepstakes is their 1981 arcade classic, *Qix*. A good game when it originally charmed the quarters out of pay-for-players, it has been further enhanced for the computing crowd.

The player's main adversary, the Qix, was a form of renegade electrical energy in the earlier version. In 1989, the Qix has been changed into a computer virus. The player must protect the playfield from the Qix, which our humanoid eyes see as a group of lines that shoot haphazardly around the screen. This is accomplished by sectioning off the playfield with an on-screen marker. Keeping the button depressed while staking your claim moves the cursor at slow speed. Releasing the button makes the marker scrawl its line across the screen much more rapidly.
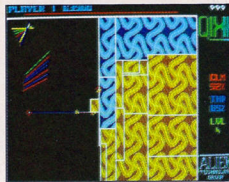
Since its introduction in 1981, *Qix* has been testing the strategic perseverance of arcade players worldwide.
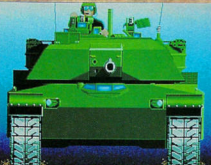

As you move your cursor around the playfield, be careful not to get yourself killed by venturing too far from safety.
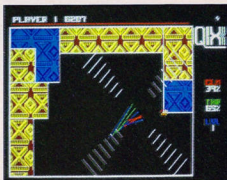
The minute John sat down to play M1 TANK PLATOON, he was a changed man.

He knew he'd never play another tank game again.

Only M1 TANK PLATOON puts you in control of four tanks, instead of just one. And only M1 TANK PLATOON has rolling terrain that you can climb and hide behind, like a real tank commander would!

You'll command sixteen men, and promote them as their skills improve. Plus, you can take over as commander, gunner or driver in any tank!

You can practice at a firing range on stationary or moving targets. Then take on a few unskilled foes, and as you improve, make them smarter and meaner!

In M1 TANK PLATOON, you can choose your own battles. Fight day or night, in good weather or bad. Call in air or artillery support when you need it. Break through enemy lines, or fight to hold your hill. Troops and battlefields always change, so you'll never fight the same battle twice!

Your tanks carry high-tech weapons and authentic instrumentation. Zoom in on the 16,000 acre battle map to get the details, or zoom out to see everything at once!

Only M1 TANK PLATOON has a manual that tells you everything you need to know about real tank combat and tactics.

All with the dazzling Super 3-D Graphics, quick thinking and non-stop action that made us the first, last and best name in combat simulations.

Get into M1 TANK PLATOON and get fired up for real tank combat!

Just for fun.
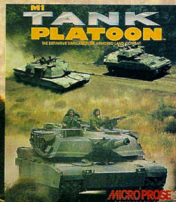
Last night John Roland led sixteen men into battle, survived an artillery barrage, toasted eight Soviet tanks and saved Europe.

Just for fun.

If the Qix touches a segment of the marker line, the player is killed. This places the gamer back at the point where he started drawing the line. If the player is successful in manipulating the marker to touch the edge of the playfield or another previously drawn line, so as to form a box, the area contained within the enclosure is filled. It is then protected from further onslaughts by the Qix. Stopping the marker lights a fuse at the end of the line. This flames its way up the line until the player completes the claim or until the fuse hits the marker, which causes the player to lose one life.

A counter on the right side of the screen indicates the percentage of the screen protected by the player. Points are awarded based on the size of the claim and the speed at which the lines were drawn. Completing a box at slow speed produces the most points, but leaves the player more vulnerable to the Qix.

The Qix isn't the player's only adversary. Two Sparx subviruses move along the lines drawn by the player. Like the Qix, collisions with the Sparx are fatal. Fortunately, after each trip down the line, the Sparx return to their starting positions at the top of the screen, allowing the player time to maneuver out of a sticky situation. At the side of the screen is a Sparx timer. When the timer runs out, two more Sparx are created, and the timer is reset.

Periodically, Spritz sub-viruses split off the Qix. The player can trap a Spritz sub-virus inside a filled section for bonus points. This also results in an extra benefit: All further sections filled at fast speed will gain points as if filled at a slower pace.

Qix graphics are excellent, even in the Commodore 64 version. The protected enclosures are filled by attractive patterns, instead of being filled with solid colors like the arcade original. These patterns vary depending on whether the area filled at fast or slow speed. Other than this enhancement, all graphics are very similar to the arcade original.

Audio is also in abundance. Engaging title music starts the play
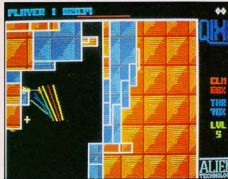
session, featuring an original jazz score. During the action, everything has its own sound, from the buzzing noise of the Qix to the fizzle of the fuse burning.

The home-computer version of *Qix* is a worthy adaptation of the coin-snatcher original. Every aspect of the conversion, which was done by Alien Technology Group, either equals or surpasses the original game.

Though it may not break any new ground in 1989, *Qix* remains an engaging, exciting game. Fans of the arcade original as well as first-time players can count on some high-action entertainment when they take *Qix* home.

—Michael Holda

Taito Software, Inc., 267 West Esplanade, North Vancouver, British Columbia, Canada V7M 1A5; (604) 984-3344.

Q. What do you get when you mix sharp graphics and sensational sound with unbeatable game play?

A. Addicted.

The hit arcade games from Europe, now available in the U.S.!

QUADRALIEN. The mission: Find and destroy the evil Quadraliens who have infested Cybernetic Power Station ASTRA and bring the reactor back under control. Work your way through ASTRA's nineteen chambers with only six droids (each with its own unique feature) to find and destroy the Quadralien Mother Creature. You'll need ingenuity - as well as lasers! - to fight through the aliens and maze-like corridors of ASTRA. Strategic thinking, a puzzle-solving mind, and a quick trigger-finger are all required, so take your time and plan your moves. But you'd better hurry - the temperature's rising toward a meltdown of cosmic proportions!

STARGOOSE. The equipment: The new top secret fighter, codename STARGOOSE, packed to the hilt with every weapon imaginable. The assignment: Steal the power crystals from the eight cities on the planet NOM. But watch out! The rolling landscape is covered with machine gun nests, laser pill boxes, automatic rocket launchers, and pre-programmed robot attack vehicles. Fuel and ammo will go like crazy, so be ready to steal more from the storage tunnels under the cities. Absorb yourself in spectacular 3D graphics, as you climb, dive, dodge and twist your way along the alien landscape. The aliens await your attack. Come back with the jewels or don't come back at all!

IBM - $39.95   Amiga & Atari ST - $29.95

Available from fine software dealers or call 1-800/826-0706

New From

SPINNAKER

CIRCLE #188 ON READER SERVICE CARD.

Drive yourself wild.

Of all the games for play on the Nintendo Entertainment System, nothing delivers performance like games from Tengen.

Because every title we release has already been test-driven on the toughest course of all — the arcades.

And every one of them smoked the competition and came out as surefire winners.

Games like *Pac-Man, Gauntlet, RBI Baseball*.

And now, *Super Sprint*.

All ready for play on your NES and available at your favorite retailer today.

Don't risk disappointment with unknowns. Go with proven arcade hits from Tengen.

And drive yourself wild with fun and excitement!

Tengen's products are designed and manufactured in U.S.A. by Tengen. They are not designed, manufactured, sponsored, or endorsed by Nintendo.
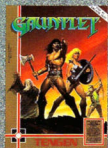
TENGEN

PROVEN ARCADE HITS FOR PLAY ON THE NES.

1623 Buckeye Dr., Milpitas, CA 95035 · (408) 473-9400

ROBOCOP

ORION

LICENSED BY
OCEAN

**THE FUTURE OF LAW ENFORCEMENT HAS ARRIVED.
NOW FOR NINTENDO.**

Detroit has seen better days. A gang of ruthless hoods has overrun the city, and crime is out of control. Attacks on the streets. Drug trafficking. Corruption and cop killing. It's so bad a private firm, Security Concepts, now runs the police department.

As RoboCop, your job is simple—clean up the city. Armed with a heavy-duty arsenal of weapons, including Robo's

Special Issue Auto-9, make your way past street thugs, the notorious Clarence Boddicker and the powerful ED-209 to your final battle with Dick Jones.

Serving the public trust, upholding the law, and protecting the innocent was never so challenging, never so dangerous, and never so much fun as this.

With great graphics and great game action, the future of law enforcement is *ROBOCOP*. On Nintendo. From Data East.

DATA EAST