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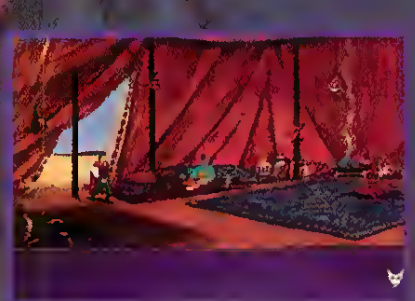

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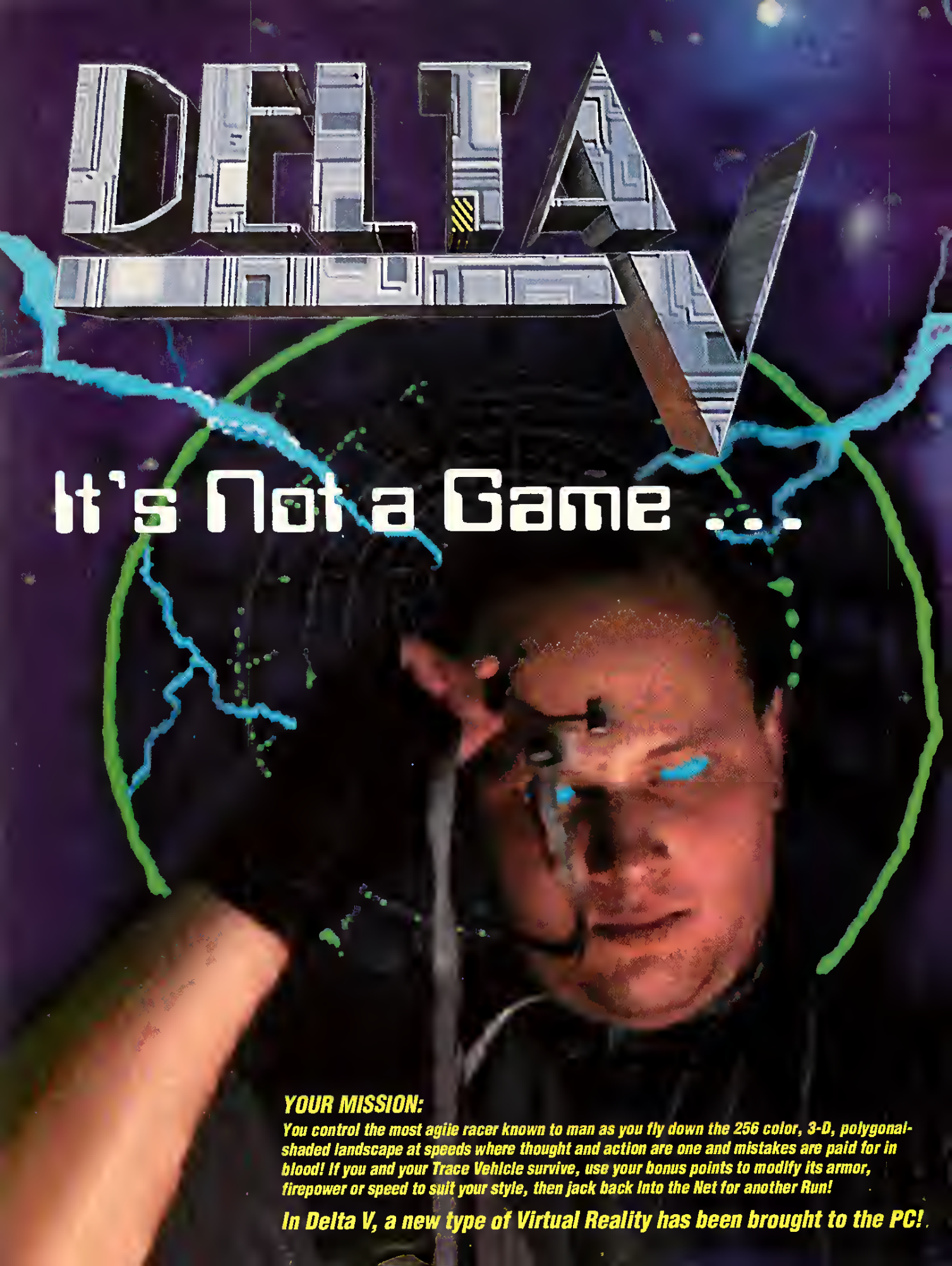
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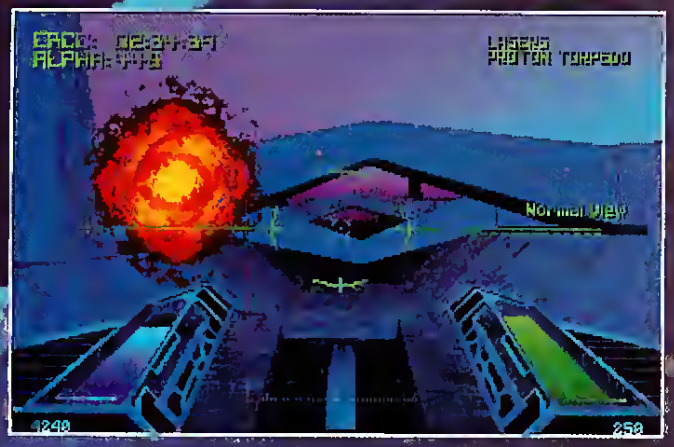

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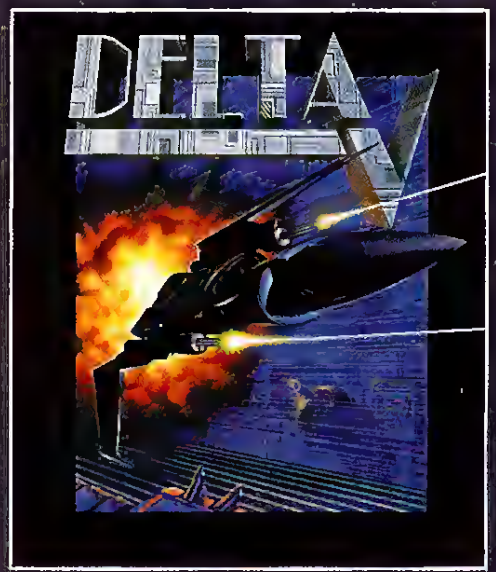
"That chum, is as permanent as it gets . . ."

END

—GROTHAN JHIR, ex-Netrunner.

. . . It's a State of Mind



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"Under the Hood" – CGW's Tech Editor repairs your fried circuits

COMPUTER GAMING WORLD

JULY 1994

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The most powerful warship in the world – AEGIS

FEATURES

2D DOOM II: Hell On Earth Mesquite, Texas may not be hell, but *CGW* Editor Chris Lombardi visited the city's own id Software in order to find out the secrets of their upcoming DOOM sequel and to battle BFG to BFG with John Romero. Fortunately, he managed to survive long enough to file this story about the past, present and future of computerdom's current darlings (or is it damnings?).

26 DESIGNING PERSONS Once a year, San Jose becomes Florence during the Renaissance for more than 1,000 computer game designers and programmers. The creative brain trust of the industry gathers to share ideas, techniques and philosophy, as well as to swap stories about the *old* days. In our coverage of the 8th Annual Computer Game Developers Conference, we summarize our favorite sessions.

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Julie Bell's oil painting of a DOOMed soldier bears the distinctive qualities of her famous mentor, Boris Vallejo.

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From the Publisher

There's No Progress Without Change

Last August Golden Empire Publications sold *Computer Gaming World* magazine to Ziff-Davis Publishing. In the months since then one question has plagued me wherever I go: "Are they (Ziff-Davis) going to change the magazine?", the clear implication being that readers and game publishers did not want changes made. They liked *CGW* as it was/is. The simple answer to the question is an unqualified "no!", the complex answer is an equally unqualified "yes!"

From the perspective of the type of coverage we do, the editorial philosophy that backs our content, the dedication to honest hard-hitting reviews, and the realization that without the trust of our readers we don't have anything, nothing will change.

ONLY THE WISEST AND STUPIDEST OF MEN NEVER CHANGE.
– CONFUCIUS

Over the course of negotiations, Ziff-Davis and Golden Empire Publications struggled mightily over value and pricing, but never over vision. When I met with Ziff-Davis executives last summer at the beginning of the negotiations, the one question that was paramount on my mind and theirs was not money, it was editorial philosophy. If we hadn't been in agreement there, money would never have been discussed. The deal would have died then. Ziff-Davis has a strongly held philosophy that editorial excellence is the fundamental cornerstone of successful publishing. If you have been a reader of *CGW* for any length of time, you realize that that is our philosophy as well. This will never change.

On the other hand, there is no progress without change. And we will change. Some of that change you see in your hands. I am very proud to present to you the newly redesigned *Computer Gaming World*. It is more attractive, easier to use, and more informative. Calling upon talented people with years of magazine design experience, we sought to create a layout that is more colorful, more informative, more intelligent, and better suited to serve you, the community of computer gamers that turn to *Computer Gaming World* each month for the best in computer game coverage. Let us know what you think.

ONWARD,

Russell Sipe

RUSSELL SIPE

JULY 1994, NUMBER 120

COMPUTER GAMING WORLD

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Editorial Remodeling

by Johnny L. Wilson

As families grow, their needs change. Many times, these changing needs cause parents to be confronted with an uncomfortable choice: buying a more functional house or remodeling their existing home. Whether you add new bedrooms, a family room, or an additional bathroom to accommodate the more demanding hygiene of the dating teenager, you are meeting the changing needs of your family.

Computer Gaming World's family is getting larger as the magazine both grows in pages and circulation. Though every writer/editor likes having a larger audience to serve, the newest readers of *CGW* have different needs than the hard-core hobbyists who supported us through our first decade. We have always had a shared context with most of our long-term, loyal readers, since they, like most of us on the editorial staff, came into the computer game hobby from the board game or role-playing side. We could assume certain conventions in terminology, design expectations and even, to some degree, educational background. Many of them told us that we were so synchronized with their needs and taste that they read each issue from cover to cover.

Indeed, we had so much of a shared context with those of you who comprised our early readership that we could argue that you would appreciate the same kinds of humor, coverage, and critical approaches that we valued. We felt like we were all part of the same community of gamers. This assumption led us to avoid certain journalistic techniques as being too patronizing for our readership.

Our philosophy has always been to give readers enough information to help them make up their own minds. We didn't want to give numerical ratings for the games that would be based on the opinions of editors when we could compile ratings from our readers. We left the scoring of games to you and tried to publish the most comprehensive articles possible.

Now, the magazine has grown to such a size that even our long-term readership doesn't have time to read the magazine from cover to cover, and the numerical growth in readers has brought us a bevy of relatively new gamers that really want the editors' guidance in terms of game ratings. The frustration of the last group was really brought home to us when we were examining the *CGW* Poll Cards from a recent issue. A significant number of cards asked us to start rating games at the end of each review.

So, as a result of these changes and requests, we were faced with three new challenges. First, helping all readers find what they want easier. Second, re-emphasizing the sense of community that we feel between ourselves and our readers. Third, providing help for the newer gamer in making purchasing decisions. In short, we needed to remodel our house so that it would serve our larger family more efficiently.

We're addressing the ease-of-use issue with color coding, sections dedicated to core genres of games, and a simplified Table of Contents. Each of the major genres of interest to our readers will have regular sections that begin with a column of special interest to like-minded gamers and a sidebar that presents the latest news within that genre. Established readers will recognize the columns by Scorpia (Adventure/Role-Playing) and Alan Emrich (Strategy/Wargaming), but we have also added Tom Basham's column for simulation buffs. We trust these new sections will be helpful for everyone.

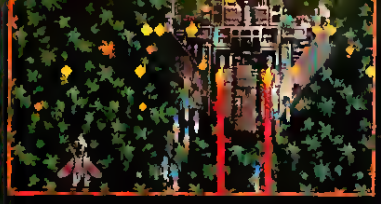
We're addressing the community question in several ways. The expanded READ.ME section is designed to keep us all informed on late-breaking information that could well be vital to the power player, our core reader. Everything from our new "Beta Bits" section about early versions of upcoming games and our "Affairs in the Cyburbs" listing of exciting on-line activities to our new "Pipeline" feature that gives you the tentative release dates of upcoming games. We are also adding "Under The Hood," a troubleshooting column to help both new and experienced gamers get more performance out of their gaming hot rods, and "Hex, Bugs and Rock 'n Roll," a column that explores game technology and the personalities behind it.

Finally, we have modified our position on editorial game ratings. Your letters have won the day. We hope that the provision of game ratings based on the familiar "five star" system will not discourage you from reading our detailed articles, but we have to meet the needs of those readers who keep telling us that they want us to give them a "review-at-a-glance" approach to game reviews. Starting this issue, you will find a summary box at the end of each review, each containing a one-to-five star rating and a Pro/Con statement on the game. While the reviewers will offer input on the ratings, the final decision will be based upon a poll of the editorial staff. The results should be both interesting and informative.

The iconic ratings symbolize the following editorial verdicts:

- ★★★★★ Potential Benchmark
- ★★★★ Excellent Game With Limitations
- ★★★ Average — Mainly For Genre Enthusiasts
- ★★ Weak — Has Significant Problems
- ★ Abysmal

In short, we've just remodeled our house. We hope you like what we've done with it.



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Interface

LETTERS FROM CGW READERS

HEX, BUGS AND ROCK 'N ROLL

I don't know if anyone else is interested, but I'd like to know more about how the games are developed — programming, graphics and sound — that sort of thing.

W. Dwinnell
Philadelphia, PA

How about more in-depth info about game development techniques? A regular column on this would be great.

Phil Dobranski
Garland, TX

As we prepared for this issue's complete redesign, we spent a considerable amount of time thinking about why we do what we do and how we could better meet the needs of our readers, both those who have been with us for a long time and those who were just discovering us as a result of our increased distribution over the last year. One of the things we decided that we definitely needed was a regular technology column. We will still have our special Game Developers Conference coverage each year, and we will still have separate "Behind The Screens" articles at various times, but Paul Schuytema's "Hex, Bugs and Rock 'n Roll" column is designed to take you behind the screens of game technology on a monthly basis. Let us know what you think of it.

WHEN YOU WISH UPON *STAR FLEET BATTLES*

"They Just Don't Get It" (*GGW* 118, Editorial) hit the nail on the head! Just what I've been saying for several years.

What I want to know is why we haven't seen a computer software version of STAR FLEET BATTLES by **Amarillo Design Group** or AXIS & ALLIES by **Milton Bradley**. Both of these board games have heavy market appeal due to established player groups. The Rumor Guy mentioned an on-line version of SFB several months ago, but I would also like to see a straight game version. Also, your "Artifacts of the Ancients" (*GGW* 118, pg. 50) did not mention WARP WAR, an excellent SFB rip-off for IBM, circa 1980.

Brian Carlton
Stafford, VA

***New World Computing** once owned **Task Force Games**, the publisher of* STAR FLEET BATTLES. *They explored the possibilities of doing a computer game based on the board game, but TFG's tenuous agreement with **Paramount**'s legal department (over whether the game was in violation of the copyright on Paramount's Star Trek properties or not) would have been put in jeopardy by the attempt to publish a computer game version. The on-line version is likely in doubt over the same issue, as well as the fact that the executive who signed the original development deal on behalf of the network is no longer with the company.*

As for AXIS & ALLIES, *Milton Bradley accepted offers on their board game properties about three years ago. **Electronic Arts** opted for* SPACE HULK, *instead of* AXIS & ALLIES, *and their U.K. branch did a sterling job of recreating that universe.*

The "Artifacts of the Ancients" sidebar was not intended as a complete historical listing. We merely listed our favorites according to the amount of space available. Judging from the next two letters, though, you weren't the only one who was intrigued by the sidebar on out-of-print science fiction games.

I would love to see some updates to the games in your sci-fi overview ("Artifacts of the Ancients"). Specifically, I'd like to see CRUSH, CRUMBLE & CHOMP with SVGA and Sound Blaster or SUPER M.U.L.E.

David Romerstein
Clinton, MD

A new M.U.L.E. *game was in the works at **Electronic Arts**, but Dani Bunten was less than thrilled with some of the changes in basic design that were being required of her. Frankly, we'd settle for the old* M.U.L.E. *on a Sega cart or in VGA for IBM.* CRUSH, CRUMBLE & CHOMP, *on the other hand, is exactly what three or four sets of attorneys would do to each other if that title was resurrected. We can well imagine a famous board game designer and a famous computer game designer suing over whether the computer game was based on a board game or not. Then, we can well imagine a Japanese media conglomerate suing the winner.*

You left out one of my all time favorite games in your strategic space games article. The game is SUNDOG on the Apple II. Build up a colony by collecting all the items. Gain money through trade or killing pirates. Great fun!

Mike Alexander
San Jose, CA

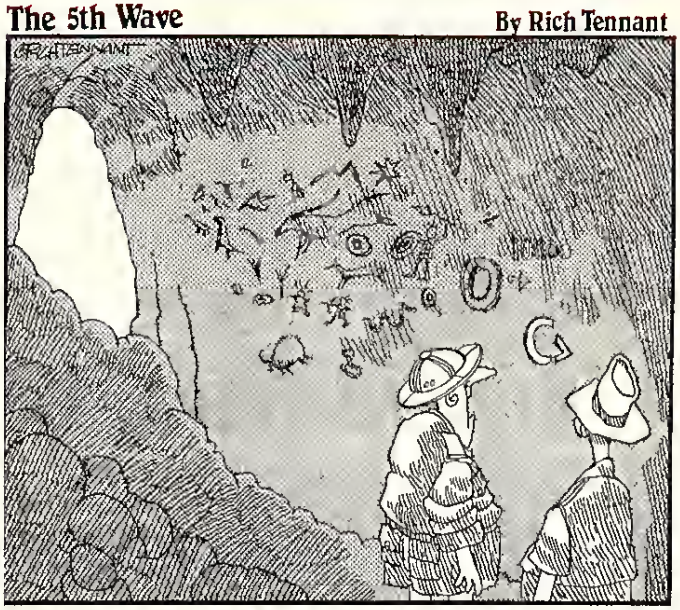
ONCE UPON A LAYOUT DREARY

Thank you for the critique of JUMP RAVEN in the April issue of *CGW*. Your reviewer took his time and played the game. The result — thought-provoking comments that serve as one of the reasons that **CyberFlix** keeps looking to *GGW* for stimulating game reviews.

However, there is one significant error in your review. The headline lists **Paramount** as JUMP RAVEN's publisher. This is incorrect. **Paramount** is the distributor. **CyberFlix** is the exclusive publisher and creator of both JUMP RAVEN and LUNICUS. The titles are wholly owned by us.

Bill Appleton, President
CyberFlix

The 5th Wave **By Rich Tennant**



"It was at this point in time that there appeared to be some sort of mass insanity."

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Cyborgirl

Pangaea

Toy Factory

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"Epic Pinball rings up a high score" - Computer Gaming World

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"Perfected to the peak of playability", rated 5/5 - PC Power

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Sorry for the confusion. At one time, we only had to worry about the distributor/publisher distinction with the affiliates for ***Electronic Arts***, ***Mediagenic*** *(now,* ***Activision*** *once more),* ***Broderbund*** *and* ***MicroProse****. Now, we are getting used to the idea that* ***Accolade***, ***Virgin***, ***Interplay***, ***Paramount*** *and* ***TimeWarner*** *all have affiliated publishers, as well. Hopefully, we'll make that mistake "Nevermore!" Speaking of distribution agreements, that's part of the problem faced by the writer of the next letter.*

PUBLISHER 3000 AD

What company will publish BATTLECRUISER? Please include this information in your articles.

Eric
Roseville, CA

Whereas the article did mention the publisher, ***Mission Studios****, it didn't mention the distributor,* ***Interplay****. That information is routinely supplied with the reviews, but the cover story from May was a Sneak Preview and does not usually have that information.*

CUT RATE

Why do you ask for ratings on games [for the Top 100 Poll], in this instance OPERATION CRUSADER by **Avalon Hill**, when the game will not be on store shelves until June? I own an IBM machine, but I have not seen this game out in any format, yet. What gives?

Ken
Alameda, CA

Would you believe that we simply make up a lot of the game names on the list to see if you're paying attention? How about if we told you it was a test to see if you were rating the games honestly? Okay, maybe the truth. The game is currently out on the Macintosh format. We asked for a rating because, at press time, it was supposed to be shipping and we expected it to hit the shelves at the same time as the magazines.

O SOLO MIO

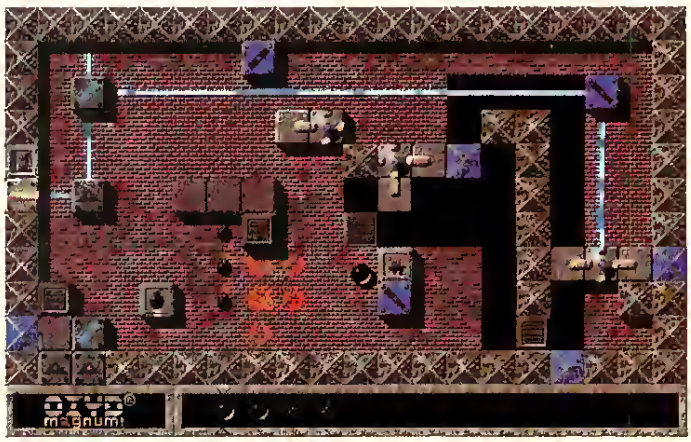
Just a note from the Hans Solo fans to **LucasArts**. Please, please release a Millennium Falcon upgrade for X-WING FIGHTER. PRIVATEER has really wet our whistle.

Scott
Las Vegas, NV

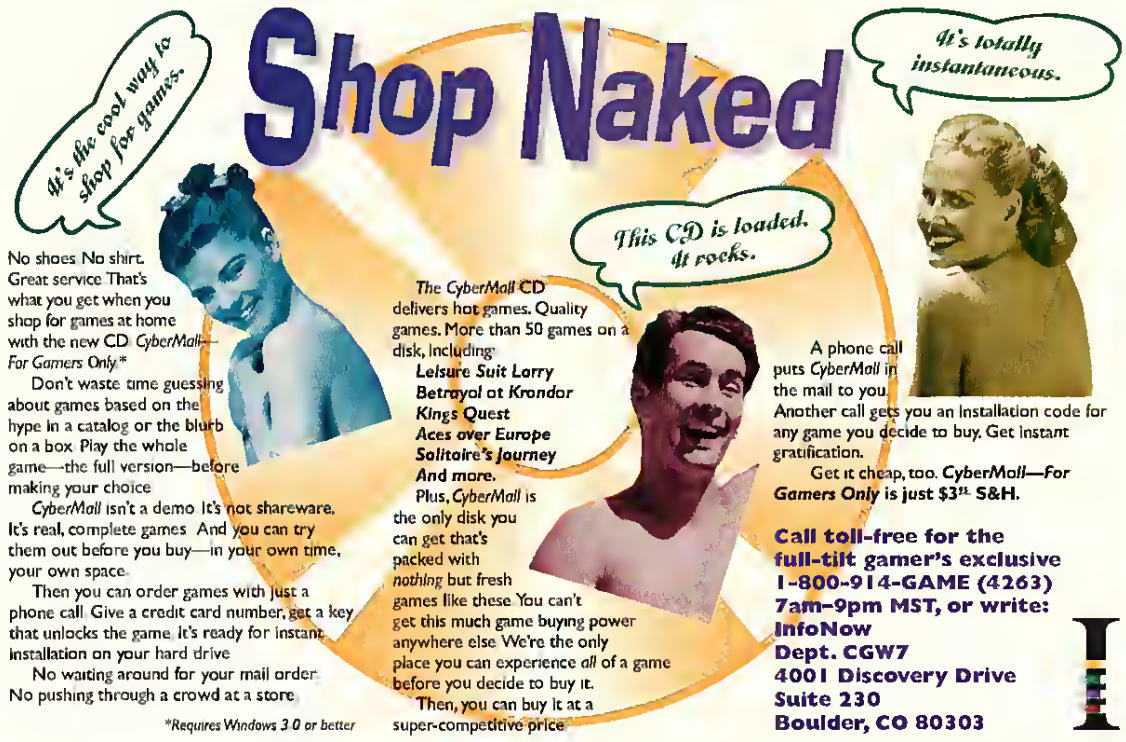
It might be tough to convince the folks at ***LucasArts****. Thus far, games in the series have stayed away from letting gamers be actual characters from the films. So, since there is really only one Millennium Falcon, it is highly unlikely that they will do so.*

MAGNUM OMISSION

Our official continuity squad missed the fact that our OXYD MAGNUM! *review was accompanied with screen shots from the original* OXYD. OXYD MAGNUM! *is a completely different game than the shareware version previously released. Here's an image from this new release.*



MAZED AND CONFUSED **OXYD MAGNUM!'s new lasers and bombs might make you lose your marble.**



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THE LATEST NEWS FROM THE GAMING WORLD

Illuminati: 300,000, Secret Service: 0

Secret Service Settles Steve Jackson Games Case

After four years of legal maneuvering and more than one year after a federal judge ruled that the Secret Service unlawfully raided Steve Jackson Games in March of 1990, the United States Secret Service paid more than $300,000 to Steve Jackson Games. The raid took place on March 1, 1990, when Secret Service agents seized several computers and the galleys for a role-playing game supplement (GURPS Cyberpunk) that was ready for printing. The Secret Service carried out the raid under a sealed warrant, alleging a conspiracy of hackers on the SJG BBS.

On May 5, 1994, SJG announced that the Secret Service had finally paid the judgment. The exact monetary settlement was $52,431.50 for lost profits due to the unlawful seizure of product and equipment and $252,405.54 for legal fees. The latter funds were originally provided by the Electronic Freedom Foundation (EFF), which will be reimbursed by the settlement.

The judgment is an important watershed in protecting the privacy of computer gamers and other users on local bulletin board systems, as well as those who use the Internet.

Fox Hunts For Interactive Profit

Ex-Tengen Exec Ted Hoff Heads Fox Interactive Division

Those watching the inevitable invasion of Hollywood into the gaming industry may note that a new beachhead has been hit. Ted Hoff, formerly of Tengen (recently integrated into the Time-Warner Interactive Group), has been chosen to head up Fox's new interactive division. Fox announced it would release five game titles in the upcoming year on available platforms ranging from 16-bit cartridge machines to CD-ROM players.

From a marketing standpoint, the move to release games based on Fox films and videos makes sense, given their high profile. Fox executives remarked that the release of games on certain films was bound to happen, and that they saw no reason to continue licensing games. The first of these many releases, THE TICK, appears to be a standard twitch-and-flex cartridge game. However, PAGEMASTER, a fantasy game based on the upcoming Macauley Culkin/Christopher Lloyd film, and SCAVENGERS, a science-fiction epic, both appear to be of more interest to *CGW* readers.

Hoff and other Fox executives seemed sincere about avoiding the "tonnage mentali-

BETA BITS

Front Page Sports: Baseball

The design team that revolutionized sports sims with FPS: FOOTBALL PRO is taking a crack at baseball. The design team is taking a similar approach to that of FPS FOOTBALL, providing both a sound and detailed statistical simulation along with a great action game. Like FPS FOOTBALL, you will be able to simulate full seasons of major league play over many years, so that players will age, come into their prime, slowly decline, and then retire. Drafts, minor leagues, trades, and play-off roster expansions will all be a part of the general manager's life. The basic model for the game calculates the flight of the ball off that bat using a sophisticated physical model, so the path of a given ball will be unpredicable, unlike most baseball sims. Projected Release: July.

Inferno

From the other side of the Atlantic comes this Action/Adventure game, looking to be the heir to STAR CONTROL 2. A staggering 700 potential missions take place in a solar system beautifully-rendered through a combination of texture-mapping, 3D computer modeling and digitized photographs. The game may be played simply as an arcade exercise, using the three different flight models available. For those wishing more direction, the "director's cut" scenario creates a campaign story generated by your actions, as you attempt to defeat the evil aliens in classic sci-fi fashion. Instead of being locked into a linear flow, a la WING COMMANDER, INFERNO's story branches have some 6000 possible outcomes, making this game far more replayable than most of its genre. Sporting a dark graphic novel-like look, the game has one of the best and most original soundtracks we've heard in ages. Projected release: July-August.

ty" of putting out large numbers of indistinguishable products. Still, when *CGW* asked how Fox intended to keep their stated artistic integrity intact — given Nintendo's tendency to dictate content — Hoff avoided the issue by discussing game ratings and censorship in a broad sense. Further, Fox sees games as largely for kids, and cited their adult line as beginning with a Marilyn Monroe infotainment product.

To industry veterans, there may be a sense of *deja vu* in the Fox announcement. Prior to the cartridge crash in the mid-'80s, Fox, media giant **CBS** and super-conglomerate **Gulf + Western** (then parent to **Paramount Pictures** and book publisher **Simon & Schuster**) had software companies to publish their specific properties. **20th Century Fox Games** even published a M.A.S.H. cartridge and an ATTACK OF THE KILLER TOMATOES game. By the late '80s, however, out-licensing (where studios let others use their creative properties for a fee) had become the most efficient means of dealing with creative properties for software products. Now, with the information superhighway on the horizon, studios want to take direct control of their properties once again.

Mindcraft & Mallard R.I.P.

Mallard, the publisher of FLIGHT SIMULATOR add-on products, and **Mindcraft**, the award-winning publisher of THE MAGIC CANDLE, have closed their doors. **Mallard**'s assets have been assumed by the **Bruce Artwick Organization, Ltd.**, the original developers of the FLIGHT SIMULATOR products, and BAO will be distributing such products as FLIGHT SIMULATOR FLIGHT SHOP, TOWER CONTROLLER, AIR RESCUE 911 FOR FLIGHT SIMULATOR 5 and REAL WEATHER PILOT UPDATE under the **BAO Simulation Products** label.

Mindcraft, following on hard times and disappointing sales, was forced to file bankruptcy. However, its founder, Ali Atabek, is now a producer at **Interplay Productions** and is expected to finish the MECHAMANDER strategy game for that company. MECHAMANDER may well be named MECH COMMANDER before the project ships, but Ali's original vision is still expected to reach the market in 1994.

PLAYING LATELY?

Here are the titles that gamers are spending the most "quality time" with. Let us know which game you've been playing lately, by writing the name of your current addiction in the "Playing Lately?" section of the *CGW* Top 100 poll card.

Results for *CGW* #118, May 1994

1.	**Doom** (id Software)
2.	**Master of Orion** (MicroProse)
3.	**SimCity 2000** (Maxis)
4.	**Elder Scrolls: Arena** (Bethesda)
5.	**Pagan - Ultima 8** (Origin Systems)
6.	**Warlords II** (Strategic Studies Group)
7.	**X-Wing** (LucasArts)
8.	**Civilization** (MicroProse)
9.	**Fleet Defender** (MicroProse)
10.	**Gabriel Knight** (Sierra On-line)

Notable Quotes

Wit, wisdom and caustic quips from gaming's harshest critics — you!

"ULTIMA VIII is great, but it features too many arcade-like aspects, such as an arcadish combat system and the stupid jumping puzzles. What happened to having a party?" *Calin Cuhanu, NY, NY*

"DOOM is...what I mean is...words fail me. There are insufficient words in the English language to adequately describe my opinion of DOOM." *J. Hamilton, State College, PA*

I'd like to see a role-playing game where you could be the Evil One who pillages the nation, kills heroes, and casts all those cool Dark Mage spells, for a change. *—Paul Lombard-Johnson, Carol Stream, IL*

"Where is SimDog? Chasing squirrels, avoiding baths, foraging for food — think of it. The different breeds, smells, the perspective, CATS!" *Karl Kindt, Webster Groves, OH*

"ULTIMA VI was beautiful, ULTIMA VII was indifferent, ULTIMA VIII is a disappointment. Where is Origin going?" *Gilbert Brahms, Richmond, CA*

"FLEET DEFENDER is one of the most fun flight sims I've ever flown! What a great flight model. I love flying it around so much I forget about combat!" *Richard Ordway, Boulder, CO*

Rupert Murdoch Buys Again

Kesmai, Air Warrior's Parent Becomes Part of News Corp

Kesmai Corporation, developer of Compuserve's Island of Kesmai, GEnie's Air Warrior and Multi-Player BattleTech, has become part of the Rupert Murdoch empire. Murdoch's News Corporation recently staked out its position on the coming information superhighway by purchasing Delphi Internet Services. Ben Feder, Director of Interactive Media for Delphi, expressed their mission statement in sequential concerns. "Number one, it is Delphi's intention to become the number one consumer service. Number two, we believe that interactive games will be the driving force to get us there. Number three, we believe that, in Kesmai, we have acquired the number one multi-player online game developer in the world and that they will serve as a cornerstone in building the service."

With the purchase of Kesmai, most of the online game developer's games will become accessible via the Delphi service. MULTI-PLAYER BATTLETECH will continue to be a GEnie exclusive in the United States, but the other games (including HARPOON ON-LINE which is nearing a beta test launch on GEnie) will soon be found on other networks (including Delphi and **CRIS—Concentric Research Information Services**). John Taylor, President of Kesmai, says the company's ultimate goal is to be able to use their ARIES infrastructure (their own base network in Virginia) as the host environment for providing the same universe across products on all networks. So adventurers in the Island of Kesmai using CRIS might run into adventurers using Delphi and Compuserve.

Taylor also said that Kesmai will be assisting third-party developers in reaching audiences on multiple services. Kesmai will provide this service for Richard Bartles' MUD II: THE QUEST FOR IMMORTALITY and for newcomer **VOR Technologies** (a group of programmers with **Bell Labs** experience), a company which will soon offer THE DRAGON'S TALE, a first-person perspective, DOOM-like dungeon crawl, to begin internal testing.

DRAGON'S TALE: VOR Technologies' On-line RPG to be distributed by Kesmai

BETA BITS

BIOFORGE

Origin takes its turn at interactive movie production with BIOFORGE, a science fiction action story in which you play a genetically crossed man/machine. Unlike other so-called Interactive Films, where the interaction involves setting non-interactive video segments in motion, Origin is creating beautiful 3D sets in which you will control a "synthetic actor." The concept has been tried before in I-Motion's Alone in the Dark games, but Origin is replacing I-Motion's blocky polygonal creatures with texture-mapped actors, animated with a new and highly effective animation technique. Cinematic camera angles, cut scenes, and plenty of player-controlled combat will keep the plot of this science fiction adventure rolling. Projected Release: August.

LORDS OF THE REALM

Fans of the books *Life in a Medieval Castle* and *Life in a Medieval City* should enjoy the medieval management options in **Impressions'** LORDS OF THE REALM. The high concept is essentially that of a multi-player CASTLES 2, but the detail level in the economic model is considerably higher (assigning specific numbers of laborers to specific tasks as opposed to action points, selecting individual fields and crops, determining when to let fields lie fallow, and more). The final version is supposed to allow you to send custom insults to other opponents, enable you to build alliances with other players, and provide you with built-in tools for performance evaluation. Projected Release: September.

MediaVision On Corporate Rollercoaster

Quality Products Overshadowed By FBI And SEC Probes

The FBI confirmed on May 9, 1994 that it was engaged in a joint investigation with the Securities and Exchange Commission over alleged securities violations. According to the San Francisco Chronicle, one charge would likely be that MediaVision juggled their inventory to show that millions of dollars worth of product had shipped when, in reality, the stereo speakers from Hong Kong which were needed in order to assemble those fabricated shipments would not even arrive in the United States until a week later. Such inventory tampering/fabricating was reputed to have been a mode of operation for MediaVision CEO Paul Jain at another high-tech company at which he served, Video 7.

On May 17, MediaVision's top four executives resigned. They included: CEO Paul Jain, COO Russell C. Faust, CFO Steven J. Allen, and Michael Humphreys, V-P of Worldwide Sales. Jain claimed that the allegations reported in the *San Francisco Chronicle* were unfair and untrue, blaming his resignation on the negative publicity. In the wake of the resignations, a creditors committee was established to develop a plan in which MediaVision could avoid filing for bankruptcy.

Meanwhile, MediaVision's publishing group has wrapped up camera work for THE DAEDALUS ENCOUNTER, their latest interactive movie on CD-ROM. The product will feature Tia Carrere who played the love interest in both *Wayne's World* movies. It is also more than three times as large as CRITICAL PATH, the first interactive movie which MediaVision published from developer **MechaDeus**, and more puzzle-intensive than the earlier game. Gamers should hope that MediaVision's corporate troubles will not endanger such future development.

PIPELINE

NAME OF GAME, COMPANY	RELEASE DATE
11th Hour Virgin	7/94
Aces of the Deep Dynamix	8/94
Across the Rhine MicroProse	8/94
Armored Fist NovaLogic	8/94
All-Pro Football Accolade	10/94
Battledrome Dynamix	10/94
Bioforge Origin	8/94
Blitzkrieg (working title) New World	9/94
Brett Hull Hockey Accolade	10/94
Celtic Tales Koei	10/94
Colonization MicroProse	10/94
Command & Conquer Virgin	11/94
FPS: Baseball Dynamix	7/94
Heroes of M&M New World	8/94
Inferno Ocean	8/94
Jagged Alliance Sir-Tech	9/94
Jorune: Alien Logic SSI	7/94
LodeRunner: A Legend Dynamix	8/94
Lords of the Realm Impressions	8/94
Masters of Magic MicroProse	10/94
MetalTech: Earth Siege Dynamix	8/94
NCAA Basketball Bethesda	9-10/94
Noctropolis EA	9/94
Phantasmagoria Sierra	10/94
Wings of Glory Origin	7/94
Zephyr New World	8/94

AFFAIRS IN THE CYBURBS

New CGW Forum On ZiffNet Brings You Wild "Wrld" of Gaming

In the words of one of our first Forum users, *Computer Gaming World* now has its own lane on the information highway. However this section of the superhighway only allows names with 26 or fewer characters. So come join us on the "Computer Gaming Wrld Forum" running on ZiffNet on CompuServe. (We wanted to call it Computer Gaming World 4Run but they wouldn't let us). While there are still a few bridges that need widening, the fast lane is ready for access to download files and exchange information with *CGW* editors and other gamers.

Use the command GO GAMEWORLD to see all the directories about entertainment software, hardware and services. One of the first areas you may want to visit is "Hey, Editor!", where you can query our staff, including On-Line Editor Alan Emrich, who prowls there each work day. Other sections include News, Views, Issues; Adventure Role-Playing; Arcade Action; Simulation Section; Sporting Life; War & Strategy; and The Hardware Zone (a favorite of Technical Editor Mike Weksler).

In addition, you can download shareware games and reviews, game demos and game patch files. Find that worthy adversary you've been looking for in the Opponents Wanted section, where you can search for opponents by zip code.

To join the *CGW* Forum, if you are a CompuServe or ZiffNet member, type Go Gameworld at any CIS prompt. ZiffNet members pay a monthly membership fee of $2.95 for access to all ZiffNet services.

If you're a new subscriber, set your communications software to 7 data bits, even parity, 1 stop bit and full duplex, and call CompuServe at (800) 848-8990 (US) or (800) 635-6225 (Canada) for a local access number.

Once you get online, you can GO ZIFFSOFT and download WinCIM or DOSCIM to make navigating around the system easier. Then type GAMEWORLD in the dialogue box to head for the games highway. Download the file CGWNEW.HLP, a WinHelp file, in Library 1, General Files, to get a quick overview of the forum and background on the sysops and *Computer Gaming World* editors.

In addition to joining ZiffNet on CompuServe, *CGW* is also Prodigy's on-line games expert. You can find us in the Game Center, where we post three new articles a week, two hint articles per month, and administer the Top 10 Game Poll. We plan to expand into ZiffNet on Prodigy, and we are working to develop an on-line companion to the magazine with Interchange, a new online service from Ziff-Davis Interactive.

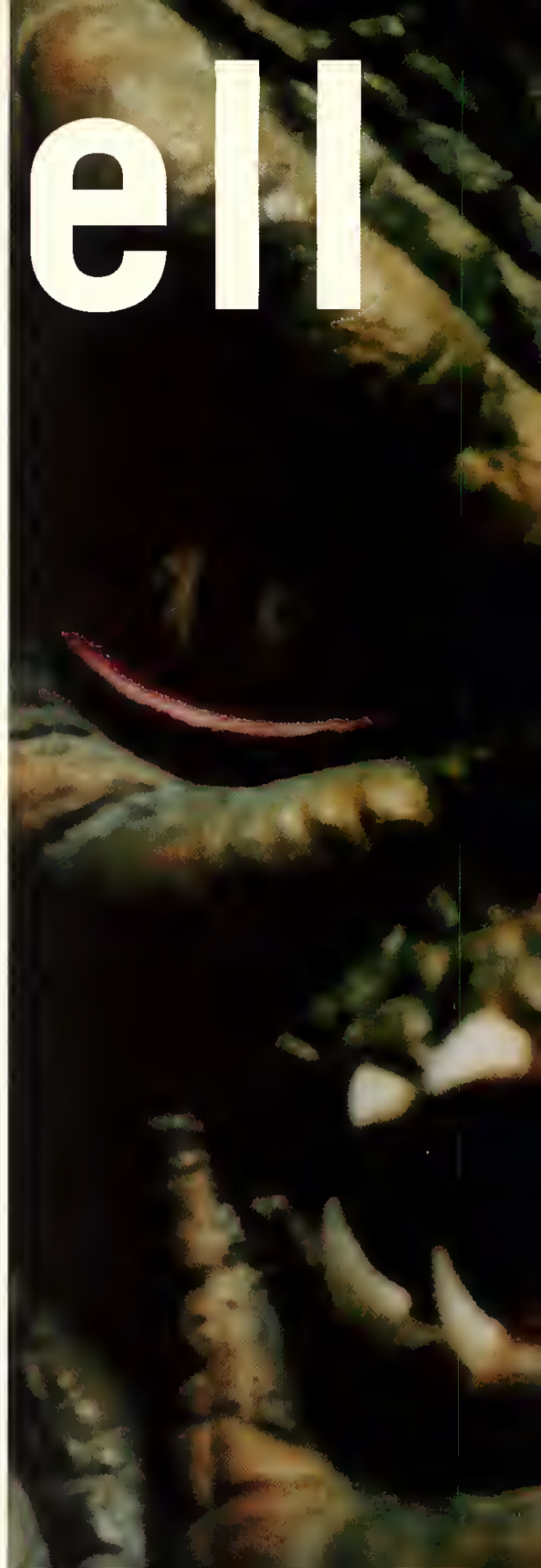
To Hell

Mesquite lies one gallon of rental car gas outsitle of downtown Dallas. By the side of the freeway is a lai ge black box of a building that looks strikingly out of place in this Southern suburbia. Here in a modest office on an upper floor of this obsitlian block, id Software created the intensely violent action games that cut deep marks in computer gaming: WOLFENSTEIN 3D and DOOM. Stories abound from the early days of computer gaming when people sat in their living rooms pouring their dreams into 8-bit computers, selling them in zip-lock bags and watching in amazement as the checks piled in, sometimes turning these pioneers into millionaires. When I stepped into the modest offices of id Software and saw how tlemocratically and, often, anarchistically these 10 people ran their operation, and when I heard just how successful their games and their shareware marketing approach have been, I couldn't help but think that I had stepped back into the wilder and woollier days of the computer gaming Gold Rush.

I was met by id CEO Jay Wilbur, who gave me a tour of the grounds: a spartan reception area with a shelf packed with awards, offices for the programmers, tech support, and the two artists, a storage room and kitchen occupied by a foosball table, an entire pallet of caffeinated drinks, a large box of chips, and a fridge filled with ice cream treats. Roughly at the center of the space is a "living room" area with couches and a pool table.

As we finished the rounds, the small talk was cut short by a scream, "Sonofabitch!", and the sound of something like a wrecking ball attacking a wall. Jay smiled. It was only programmer John Romero and betatester Shawn Creen in the first of many daily network DOOM sessions. The level of competition is vicious, I would soon find out, and the textual taunts that fly across the network tluring play are like to fry a preacher's profanity circuits. Nearly four months after the release of DOOM, the id guys are still obsessed with their creation. I've heard the statement, "We just set out to create games that we want to play," but I've never been so convinced that this was true.

Assuming Jay to be The Boss, I asked to meet with him one-on-one for the background on id. He flatly refused. "Everything is run democratically here. We all have a say." So he gathered the majority of the id group, and we pulled up chairs around the pool table-turned Ping-Pong table, currently the site of a Battle Masters fantasy-miniatures game. Setting my tape recortler on a well-defended hex of the Milton Bradley game, I shot the breeze with: 26 year-old John Romero, tools programmer, level designer, and the best DOOM player in the world; Sandy Petersen, a long-time paper game (CALL OF CHTHULU) and computer game designer (HYPERSPEED) who now does the majority of the level design; Kevin Cloud, a soft spoken southern gentleman of 26 years antl one of two id artists; and finally, Jay Wilbur, the bleach-blond 33-year old who handles operations and manages the finances (a BIG job these days). John Carmack, the 23 year-old programming



and Back Again

CHRIS LOMBARDI ventured deep into the heart of Texas to visit *id Software*, the creators of the infernal DOOM. He came back with a story, but had to trade a piece of his soul for it.

savant and the man behind the core id technology, was making a special effort to come in "early" for the meeting, but at 2:00 p.m. he was nowhere to be found. A half hour later, he would walk in bleary-eyed, explaining that he'd been in "vampire mode" for the last week, programming WOLFENSTEIN 3D for the Atari Jaguar.

ID THE BEGINNING...

Id Software is basically a collection of pilgrims from a company called Softdisk out of Shreveport, Louisiana. Softdisk put out a monthly disk of arcade games, and in 1989, Romero, Wilbur, Cloud, Adrian Carmack, and Tom Hall were a part of the game development group there. John Carmack, an Apple IIGS programmer, came to Softdisk in 1990, lured by the opportunity to learn IBM programming under Romero's tutelage.

In 1990, Romero began to get fan mail for one of the arcade games his group had programmed. He would tack the goofy, though worshipful, fan letters proudly to his wall, ignoring the many requests to call his fans back. So proud was he, he failed to recognize that, though the names on the letters were different, the address was the same. Then, he made a connection. While reading about a piece of shareware in a computer magazine, Romero saw a contact address that seemed strangely familiar. Looking up at the fan letters, he noticed the address was the same.

Scott Miller, head of Apogee software, had written all of the letters, each with a different variation on his name. He was impressed with Romero's work and wanted Romero to work for him. But, knowing that all of the mail at Softdisk was screened, he couldn't contact Romero directly, so he wrote the letters.

After Romero got over the disappointment (he was proud of his

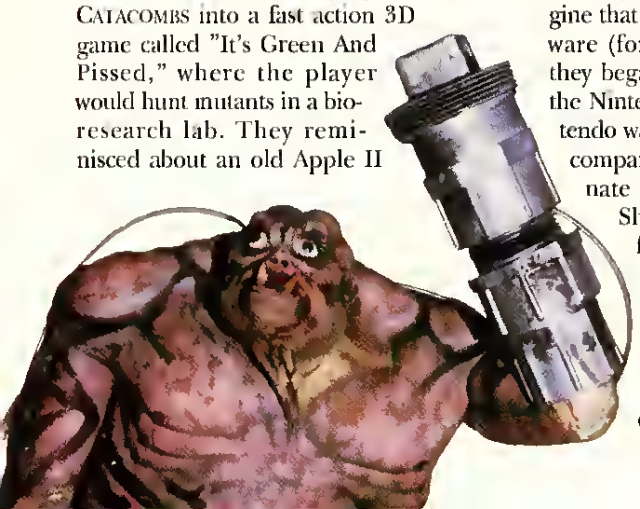
TESTOSTEROSSA "My mom stopped hassling me to get a real job when I bought my first car," Carmack says. His *other* car is a Testarossa, too.

fan club), he called Miller back, and ideas were thrown about. In December of 1990, a group of programmers at Softdisk proposed COMMANDER KEEN to Miller. They began moonlighting, programming Keen out of the bedroom of "a really cool lake house. We could go out in the middle of the day and go kneeboarding for a while, and then come back in and start programming," recalled Romero.

COMMANDER KEEN sold very well for a shareware game, and when they got their first check from Apogee, Romero, John Carmack and Adrian Carmack (no relation) decided to leave and form their own company. The original name was IFD Software, or Ideas From the Deep, but it was later shortened to ID, which originally stood for In Demand. Not pleased with In Demand ("it was lame"), someone suggested the connection with the Freudian term id. They liked the connotations and adopted it.

A few months later, id hired Tom Hall from Softdisk and moved to Madison, Wisconsin. After a hard winter programming the remainder of the COMMANDER KEEN series, the group moved to their current location. They hired Jay Wilbur and Kevin Cloud from Softdisk, and began working on WOLFENSTEIN 3D.

WOLFENSTEIN 3D followed a Carmack project called CATACOMBS 3D. The group wanted to fold knowledge gleaned from CATACOMBS into a fast action 3D game called "It's Green And Pissed," where the player would hunt mutants in a bio-research lab. They reminisced about an old Apple II game called CASTLE WOLFENSTEIN and decided that the setting of this classic (a captured U.S. soldier trying to escape from a Nazi fortress) would be a great game in 3D. They hunted down the original designer, Silas Warner, only to find that he had sold the rights. The rights trail led through three or four long-dead companies, finally ending with a guy selling the original game out of his basement. The copyright on the game had long since lapsed, so they applied for the copyright themselves.



When WOLFENSTEIN 3D was released, all hell broke loose. The tremendous 3D environment blew the minds of people who had come to expect a certain level of production value in shareware games. The cry from the press "I can't believe it's shareware!", echoed the sentiments of players everywhere. The game logged 150,000 registrations as shareware, and sold 150,000 copies in retail stores as Spear of Destiny. Id estimates worldwide shareware distribution to top one million.

As the fame of WOLFENSTEIN began to build, the group started a few new projects and began working on a new graphics engine that they would license to Raven Software (for Origin's SHADOWCASTER), and they began a conversion of WOLF 3D for the Nintendo. Their experience with Nintendo was a bad one, being forced by the company to change the game to eliminate the Nazis and turn the German Shepherds into rats. Once this disfigured version of WOLF 3D was finished, they vowed never to work for Nintendo again.

At this time, the ideas for DOOM began to percolate, but there were troubles in the development team. Creative director Tom Hall had developed a design for DOOM that the rest of the team didn't like. Basically, Hall wanted to inject a story into DOOM and make the environment more interactive, but the rest of the team didn't want a story to slow down the relentless, visceral action. So Hall and id parted ways, making way for designer Sandy Petersen. The group hired Petersen in July of 1993, and he immediately began working with Romero's design tools, developing many of the levels in the final version of DOOM. A few months later, id added Dave Taylor, a UNIX hack for IBM, to program the intermission screens, automap, and sound code.

DOOM'S DAY

As Doom progressed, word of its wonders began to spread through the press and the on-line networks. Anticipation in the gaming community reached a fevered pitch when the company announced a December release. Id advertised that the shareware version would be released on the 10th at midnight on the University of Wisconsin's computer system. The system allowed 125 users on its FTP site, and all 125 slots were full that night. Wilbur couldn't get on the system to upload the game.

HEAVYWEIGHT HELLION Weighing in at 500 lbs. and with a reach of two erratically firing plasma guns, this hefty chum is going to be a tough opponent in the ring.

When Wilbur requested the sysop to clear the system, the sysop complied and raised the user limit by 50. Despite this, users started pouring in again, and Wilbur barely made it into one of the last slots.

In addition to the users on the Wisconsin system, hundreds of others "watched" Jay upload DOOM through the IRC channel. The second Jay completed the upload, thousands of people on the IRC channel slammed the Wisconsin system and crashed it...twice.

SHARE IT WITH THE WORLD

Despite the success of their games, id continues to surprise the market by sticking with shareware distribution (although the sequel to DOOM will be a commercial release). But there are advantages to marketing via shareware that the group supports, not the least of which is a healthy profit margin. id also likes the fact that people can try out their games before they buy them, and they like being able to distribute their games immediately after they're finished. They especially enjoy not having to deal with marketing and retail pressures. "I don't think you can be any closer to the consumer than in shareware," said Cloud. "Yes, but the main reason for being in shareware is greed," replied Petersen, half joking.

Though id is rolling in the fruit of their labors, it doesn't seem to have affected their day-to-day lives much. Several of them are buying or building houses, except for J. Carmack who still lives out of a one bedroom apartment; he sees no need for a big place because he spends most of his waking hours at id. Instead of a home, Carmack has bought not one, but two Ferrari Testarossas, the second of which is currently undergoing an 800hp twin turbo transformation. "I want dangerous acceleration," he said with a nervous laugh. Romero has since turned a green eye on Carmack's machines and has bought his own yellow Testarossa.

SERGEANT SLAUGHTER A new sergeant is there to greet you with open arms — and make you dance the chaingun boogie.

Aside from enabling Carmack to buy new toys, the money seems unimportant to him. What is important is programming — creating better and better games by creating better, tighter, faster code. He talks about WOLFENSTEIN as if he's embarrassed. "It was just a simple piece of work," he says dismissively, "DOOM was just so much better." Yet, DOOM is already starting to lose his favor. He's looking forward to the next project, where he can turn his obsession into the next huge leap in immersive gaming.

SHAKIN' AND QUAKIN'

What is the next huge leap? They wouldn't say much, still in the idea phase and reluctant to build expectations too early, but they did tell me this: the name is QUAKE, the game engine will be completely brand new, and the 3D world will be so complete that creatures and characters will have depth, rather than being flat sprites. The current setting (notice I didn't say the evil s-word, "story") is a fantasy world where the player becomes a Thor-like being wielding a giant hammer, which he can throw at or bludgeon anything that moves. The world will have some real physics, so that characters will tumble when they fall from heights, and be knocked flat on their backs. As Romero was describing the multiplayer QUAKE of his imagination, he was literally hopping out of his seat and pantomiming the violent drama between two warrior gods, punc-

Circle Reader Service #192

THIS'LL JUST KILL 'EM John Romero — tools programmer, level designer, and DeathMatch deity — shows off a new DOOM II level in progress.

tuating the action with sound effects (which he is given to in most conversations). If they can calm Romero down long enough to get some work done, id hopes to start working on QUAKE in September and release the game for Christmas of '95.

DOOM II DIE

In the meantime, id is working on the sequel to DOOM — DOOM II: HELL ON EARTH. If you haven't yet finished the first game, I'm going to have to spoil your fun. At the end of DOOM, your marine escapes the pit of Hell, along with a couple of our friendly demons. In DOOM II, your marine returns to an Earth city to find that it is overrun by nasties. Nastiness is essentially what the new game is about.

DOOM II uses the same engine as the original, but offers 27-30 new levels populated by six new evil creatures — and it's going to be tough! Carmack told me, "It's not going to be an easy thing. We want to please players who have played all of the shareware stuff. We're going to include episode one [shareware DOOM] so that if people find DOOM II too tough, they can go back and train on that." And train you must, inexperienced ones, because the first few levels of DOOM II saw my character in death throes more than I'd care to count.

The new cast of characters for DOOM II is an interesting and deadly lot. In the Junior Badguy division are a chaingun-wielding sergeant, the Hell Knight (a junior version of the Baron of Hell), and a new Cacodemon that shoots Lost Souls (the screaming heads) out of its mouth. In the heavyweight division are a skeleton that shoots guided fireballs that will track you, an extremely obese chum with plasma launchers for arms, and the ArchVile. The ArchVile is a truly hideous thing that attacks by conjuring hell fire from the ground. If the ArchVile gets a bead on you, he'll go through a conjuring hocus pocus with his hands. If you're in his line of sight when he's through conjuring, you'll be frozen in your tracks and take the equivalent of a BFG attack on your mortal flesh. Ugly stuff. And that's not all — he has the power to raise dead creatures.

As if the creatures weren't nasty enough, the level designs are downright devious. As Petersen said, "We learned a lot about designing levels in DOOM, and we'll put what we learned to use in DOOM II." Apparently, what they learned was how to put the player in more perilous predicaments. I played about 10 of the new levels, and each has a few very sticky moments. In a particularly hairy scenario, the player is locked inside a small arena with both a Cyberdemon and the Mastermind Spider — the endlevel creatures from the registered version of DOOM. You enter this arena with little in the way of weapons, and the creatures immediately turn their tremendous firepower on you. If you hesitate, you're giblets. The key is to run around the arena, frantically dodging rockets and machine gun spray, and try to get the two creatures to fight each other. Once they're going at it, you must creep up on the platform where they're battling and inch your way around them to get to a lever that opens up the exit door. The feeling you get is of a little mortal running between the legs of two battling titans.

Since the game takes place on Earth, there are a number of city scenarios. There are tall buildings with imps peeking out through the windows, machine gun sergeants tucked in doorways and on ledges, and demons on the rooftops. I stood in the central square of one cityscape and looked around. In seconds, there were at least 15 fireballs and a hailstorm of gun fire flying at me from every direction.

Along with the increase in monsters comes slightly higher system requirements for optimal play. Lots of active monsters and multiple projectiles can bog down a processor, so if the first DOOM ran a bit slowly on your machine, DOOM II may bog down to the point of irritation.

No decision has been made yet on the subject of new weapons. A few of them expressed their disappointment with the BFG and suggested that it might be changed, but there wasn't a majority opinion on the subject, which is what is required for action at id.

THE EDITOR'S DEMISE

As my day with id drew into a windy Texas evening, I found myself in Episode 1 Level 5, an id favorite, in a network DeathMatch with Romero, Cloud, and *CGW* columnist Paul Schuytema. Over the next few hours, Romero taught us the delicate art of slaughter, racing around the map at supernatural speeds and using the mouse with such skill that he could, literally, run circles around us while keeping his weapon aimed at our spinning heads. We even teamed up against him at one point, but he continued to annihilate us, racking up 99 "frags" in no time. I managed to get Romero a dozen times, but most of these kills were suicidal, short-range rocket attacks that took us both out.

Humbled and hobbled by hand cramps, I said my goodbyes and headed out, glad to have discovered this small group of people posessed by a vision, blessed with the talent to make the vision a reality, and absolutely loving the process and the fruits of creation—a perfect picture of what this hobby is all about.

TIPTOE THROUGH THE TITANS The two end-level badasses from the registered version of DOOM make a guest appearance in the sequel.

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Circle Reader Service #77

The Designer's Dilemma

THE EIGHTH ANNUAL COMPUTER GAME DEVELOPERS CONFERENCE

Illustration by Brian Clarke

When Chris Crawford asked both Sid Meier, game designer par excellence, and Greg Roach, theorist of the virtual cinema, a hypothetical question about being stranded on a desert island, it polarized the audience. "Which would you prefer to be stranded on the desert island with: a) Marilyn Monroe, b) the Library of Congress or c) the hot rod development system of your dreams and an unlimited power supply?" Greg Roach answered honestly enough, "I'm human...Marilyn Monroe." Yet, Sid Meier also answered honestly enough, "The development system, but I'd probably have the Library of Congress on a CD."

The question, oversimplified and ridiculous at it may be, underscores the constant tension between human need and technological possibility that is faced in computer game design. Game design is not a question of whether to reflect life and the human condition as much as it is a question of *how much* of life and the human condition should be portrayed. In like manner, game design is not simply a matter of an all-empowering "*Can* we do it?" but often a question of "*Why* should we do it?"

When designers get together, their concerns range all the way from that which is merely human to that which is purely technological. It is amazing, however, how often these two poles come together in a magnetic attraction. *CGW*'s editorial staff attended the Eighth Annual Computer Game Developers Conference and the summaries which follow reflect some of our editors' views of the most interesting sessions.

TRANSCENDING THE BOX

In addition to the hypothetical question which set the stage for this article, moder-

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ator Chris Crawford asked Interactive Filmmaker Greg Roach and Computer Game Designer Sid Meier some more substantive questions in the session entitled, "Multimedia versus Game Design." Roach was asked to define great multimedia and Meier was asked to define great games. The former answered that it takes an emotional connection that transcends the box. The latter agreed that, even in games, the best experience is when the games leave the screen and enter the player's imagination.

After that basic agreement, however, the answers began to diverge. For example, "What design problem makes you sweat the most?" Roach focused on the realities of digital video and trying to circumvent them. Meier insisted that discovering the elusive quality of fun is the toughest part of design.

Asked to describe their development environments, Greg described a bank of 22 programmers and artists working on Quadras and SGI machines. MADNESS OF ROLAND used HYPERCARD and MACROMIND DIRECTOR, but now his products require low-level machine language coders to manipulate the necessary digital images. Sid uses a 486/66 with Microsoft C. Roach spoke of the dialogue between programmer and artist as one of compromising between vision and limitations. Meier spoke of the necessity for synergy within the office and the new ideas that he can try that eventually benefit each project.

ROGER'S HEAD Inspirational speaker Roger Van Oech breaks down the creative process into the stage version of "Herman's Head."

Asked to look toward the future, Roach visualized the next breakthrough coming with real immersive experiences becoming possible for mainstream audiences (he called them the "Potato Family"). Meier surprised veteran "Sid-watchers" by suggesting that interactive television will be the major revolution of the future. He perceives that game designers will become more facilitators of an experience than the creators. "Making environments where people can create their own fun" is Sid's goal. Meier also said that he thought the design process would become easier in a multiplayer environment because AI issues would diminish.

In conclusion, Crawford asked the two to offer their best "hunch" on whether multimedia and computer games will merge or diverge. Roach stated that he didn't think either side could ignore the other. Hence, he opted for convergence. Meier also opted for convergence, noting that digital video is already fun to look at, but will become more of a tool than a feature as we move forward.

—Johnny L. Wilson

HOW THE OTHER SEX HEXES

A larger representation of women at this year's conference wasn't lost upon the mostly male conferees. Regarding their growing numbers and attractiveness was a popular pastime during breaks between seminars. Perhaps their entry into the industry will engender (pun intended) new games designed for women and girls, because the hobby is sadly underrepresented by females. Two speakers explored this topic in detail to suggest methods for designing games for girls and women.

The first, Heidi Dangelmaier, a former computer science student, brought the fruit of her research on children and video games to our attention. She found that boys and girls play games for different reasons, want different things from games, and have different reactions to the same gaming stimuli. Interestingly, she found that girls do not consider gaming machines inherently "male." Rather, it's the *games* they consider to be primarily "for boys."

It comes as no surprise that girls consider games involving fighting to be for boys, and the same for games that don't have strong female characters. 85% of females said video games would be fun to play if more games were designed for them.

With today's video games, boys who play them tend to be twice as alert and excited as when involved with any other media; girls were more excited watching television. Girls think most video games are "a waste of time" and prefer to play games that are purposeful, practical and/or complete a task. When boys think of playing games that are purposeful or practical, their stress levels go through the roof!

Boys and girls want different feedback from a game, as well. Boys often turn the sound and voice off in a game, but girls want *more* feedback, not less. In one study, some children were given positive feedback for effort, while others were rewarded for ability. Effort-based feedback gave girls more confidence and motivated them to finish. Boys said that being rewarded on *effort* and not *ability* was condescending.

Boys prefer recognition for their ability because boys play to *win*. So, rules are important. Girls play to have fun. If the rules get in the way of having fun, they will bend the rules. As a result, girls play with custom rules until they get bored. Boys play until someone *wins*.

Finally, she said that the subject matter of the games separates the sexes. Boys enjoy combat, but they also have a predilection for finance and resources, science fiction and space. Girls? STORIES. Stories about people, characters, plots, and dilemmas.

Barbara Lanza, a game designer/editor at Byron Preiss International, explored the idea of stories in her lecture on "How The Other Half Plays." She considers interactive adventure games to be the best province for appealing to women. Girls like games which tell a story with what she calls "enhanced realism," meaning an interesting location, characters and plot. And since girls don't compete in life for points — they compete for affection and popularity — they would prefer games where winning accords higher social standing rather than a higher score.

Girls want fast startup times (no long rules to learn); fast play without emphasis on simulating boring procedures; a progressive plot that doesn't stop regardless of branch taken; and most importantly, no extended playing time with brain-teasers that aren't plot-related; and "hooks" which bring the player further into the game, instead of "locks" which require special knowledge or items to go beyond them.

—Ken Brown

HOLLYWOOD BABYLON

There was a new group of attendees at this year's GGDC, and they were easy to spot. They weren't the ones with "Beer Is Food" T-shirts, creative facial hair experi-

ments, or a mouthful of technical terms. They were snappily dressed, reserved, and obviously out of their element. They were, as I overheard them named in many conversations, the "Hollywood types."

Many in the game community look warily at Hollywood's new-found interest in interactivity. The TV/film industry is seen as a major threat to creativity, true interactivity, and all that is held sacred in gaming. But at least one person was resigned to the inevitable invasion by Hollywood, and he stood at the gateway to the Land of Interactivity, waiting to greet these newcomers with a smile...and a message.

Ernest Adams, one of the CGDC board members, is a short, stout man with a wild beard who wouldn't look out of place in a lineup of renegade Old Testament prophets. So, it was appropriate that he chose to deliver his message, "Celluloid to Silicon" as a sermon directed toward the "Hollywood types" to both introduce them to the industry and to explain the resistance that they may have felt, or may yet feel, from the game design community.

First, he tried to explain what the software creation process is all about. He bemoaned the fact that there is no quick and dirty metaphor to explain the process of programming, saying that the only suitable explanation can be found in another name for programming—software engineering.

Engineers, he explained, are faced with problems and asked to solve them in novel ways, whether it be building a bridge, cramming an unheard of number of transistors onto a silicon chip, or creating a unique game world. Since an engineer never tackles the same problem twice, he or she has no idea how long a new task will take, or even how to do it. *Software* engineering is especially difficult, because unlike other forms of engineering, there are no rules, no code of ethics, and no standard practices. Software engineering is a young and trouble-ridden discipline.

The warning of the sermon was that software engineering is the essential ingredient in game creation—no software engineering, no dice. As Adams put it, "Engineering is the hub of the product...and engineering is awkward, and unpredictable, and slow, and it is unavoidable....Engineering isn't a metaphor for what we do: it *is* what we do. And if you're going to come into this industry, you're going to have to learn to deal with that."

Having given *that* warning, Adams proceeded to tell a brutal but honest truth: "The interactive entertainment industry is suffering from a grave shortage of creative talent."

"We make a lot of noise about storytelling in this industry. But just look at the things we are pleased to call 'stories'. Our plots are thin as tissue paper; our characters are two-dimensional at best...our so-called stories are utterly without meaning, moral, or message."

This is where Adams welcomed Hollywood with open arms. He welcomed the story telling expertise Hollywood has developed over its long history. He welcomed plotting, pacing, and directing techniques. He welcomed realistic dialogue and talented actors, but his invitation to Hollywood was not unconditional. Before Hollywood and gaming are united in creative matrimony, Adams wants a prenuptial agreement. "As much as we need you, we're also afraid of you."

PISTOLS AND PIXELS ***CGW*** **Editor-in-Chief Johnny Wilson expresses his concerns about the Video Games Rating Act of 1994.**

Adams has three fears. His first is the fear of any small community that is being invaded by another group — the fear of losing its identity. He is afraid that "our wonderful, wild, and woolly culture is going to be submerged beneath acres of oxford cloth and power neckties."

Secondly, Adams fears the corruption of advertising. He looks on the deplorable state of television as the prime example of how advertising can stifle creativity and control programming. "The Madison Avenue creeps who keep your creativity in fetters want to do the same thing to us."

In the same vein, Adams fears the movie industry's single-letter rating system. To illustrate his rant against the hypocrisy of the system, he presented slides of great paintings that would be restricted from public viewing because of "full frontal nudity." Michelangelo's "David" would have to be modestly breached. Renoir's "The Bather" would have to finish her ablutions behind closed doors ("Hasta la vista, Renoir! That young lady's vulva just blew Network Standards and Practices' tiny little mind!") Rodin's "The Kiss" would have to be veiled to protect family values. Finally, he paraphrased movie critic Roger Ebert, who once said that it is now more acceptable to show someone's breast being sliced off, than it is to show someone's breast being caressed. "A damning indictment of a very sick state of affairs," said Adams.

Although Adams' rant may have been a bit misdirected, as one could argue that the movie rating system is only a symptom and/or reflection of skewed societal values as a whole, it was nonetheless powerfully presented and insightful.

The exhortations given and the Book of Ernest read, Prophet Adams gave the benediction. "When you join us, bring with you all that is good about Hollywood, and leave behind the bad. Leave behind the chains." It was a strong and important message — too bad he was preaching to the choir, with only a handful of Hollywood types dotting the audience. Never fear, though; Adams will have plenty of opportunity to spread his word as the Hollywood invasion intensifies over the next few years. Let's hope his is not a lonely voice in the creative wilderness.

—Chris Lombardi

WINNING WITH WinG

The technical buzz at the CGDC seemed to be a rush by the big boys (i.e., **Microsoft**, **Intel**, etc.) to get APIs (Application Programming Instructions) into the development environment. We thought the most exciting new API unveiled at the conference was WinG, a 32-bit DLL from **Microsoft**, designed from the ground up with game development in mind. Microsoft will be giving away WinG to build momentum for gaming in the Chicago/Windows NT environment. As a result of this effort, we should expect to see universal installation routines, hardware independence, and, for Chicago/Windows NT native games, an end to the 640K memory configuration haze that places a minimum technical expertise barrier over our hobby and keeps out the novice user.

To drive this point home, Microsoft had none other than the code masters at ***id* Software** port Doom as a native Windows application to Windows via WinG. Suffice it to say everyone in the room was blown away watching WinDoom run in a scaleable window in 640x480 resolution! I

played WINDOOM on a 486DX2/66 and the speed approached playing DOOM under DOS. Chicago and WING could usher in a whole new era for computer based entertainment.

For those of you who will be buried with your copy of MS-DOS, **Rational Systems** (the *DOS/4G* DOS extender guys) announced an API designed to utilize your low level MS Windows drivers. Via your WIN.INI and SYSTEM.INI files, a game written using this API would be able to take advantage of low level Windows drivers. This would be a boon for high performance games because the pinata of MS Windows accelerator graphics cards could be cracked wide open, sprinkling hitherto unknown performance down upon DOS games. To demonstrate this, *CGW* saw an impressive special version of DOOM running in high res and taking full advantage of a Diamond Viper VLB Windows accelerator on a Pentium rig.

—Mike Weksler

OPPONENTS UNDAUNTED

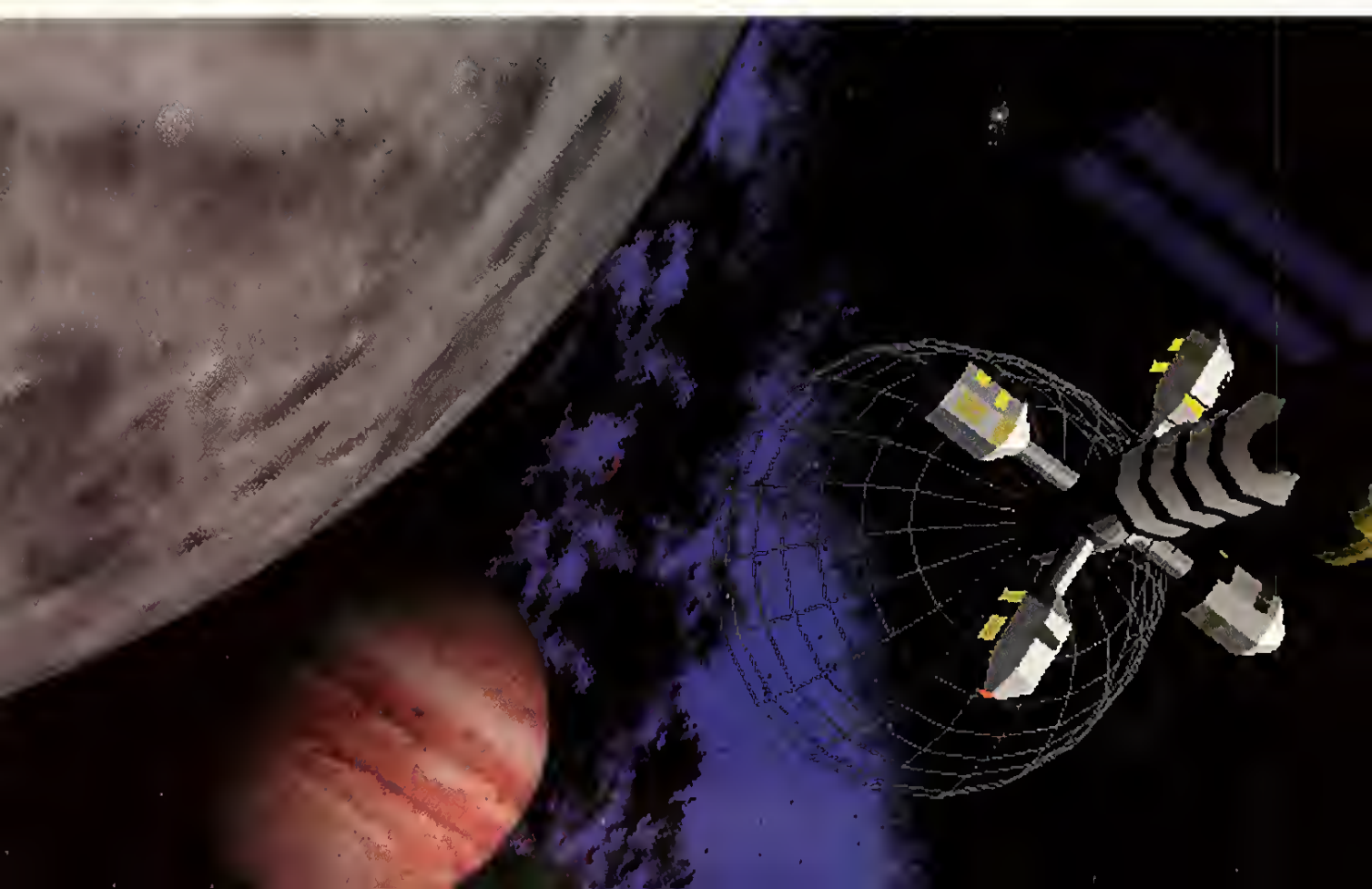
Since most hard-core gamers feel that the way in which most recent computer games have failed to improve is in Artificial Intelligence, it seemed expressly apropos for Dave Menconi to host a roundtable on Computer Opponents. Of course, where we usually use AI as a catch-all term to describe computer opponents, Menconi avoided the discussions of neural networking, fuzzy logic and subtleties of computer code usually associated with AI. Instead, he steered the discussion towards what could be done to make the computer opponent more challenging and enjoyable for the average gamer.

WHAT-ME-WORRY? Chris Crawford satirizes the current philosophies within the computer game design community.

Mark Baldwin, designer of EMPIRE DELUXE, commented that he aims for sophisticated designs which will appeal to the more hard-core gamers, with enough "fun" elements to appeal to a larger market. One of the main ways he does this is to give gamers control, so that they feel that their decisions significantly impact the game.

AI is primarily used so that gamers may play solo, and will continue to be until telegaming possibilities improve. So, for Baldwin, modem play should be included, because the audience expects it—but that doesn't allow him to neglect the AI. Rather than expect an opponent limited to 640K to consistently beat a human, Baldwin simply tries to design an AI which will challenge and be unpredictable over a long period of time. Roger Keating chimed in with the fact that DUNE II totally neglected AI, yet was still perceived as a challenging opponent.

Menconi reminded the group of the old Atari days and Chris Crawford's EASTERN FRONT game. Since there was no way an Atari 800 was going to take on a human on anything like even terms, the game was



modified accordingly. For example, they found a bug in the game where the Russian units controlled by the computer would advance into better positions during the retreat phase. They left the bug in to make for a much more challenging game.

Roger Keating at SSG is renowned for challenging AI. One of his keys is a system to stop the design in progress at any point and see what the AI is doing. By isolating the AI from other aspects of the game he is able to have a better strategic AI. For instance, it is simple to get one unit to perform realistic and competent autonomous operations. When cooperation is necessary between several units, most AIs begin to break down, but this is where Keating's games shine. Roger uses "screw points" to balance the game, and continues turning the "design screwdriver" until the game plays in a challenging way.

Keating uses a hard-coded map to let the AI know what routes for advances are available, then randomizes the avenues of approach by unit type, so that air units may show up on one flank and ground troops another, with the timing realistically coordinated. Much the same approach is used in the CARRIERS AT WAR system, where the reinforcements vary, and strategic goals are chosen from a Warcard deck.

Roger reminisced about a bug in his classic REACH FOR THE STARS, where if the human player did nothing, he would amass great wealth while the computer opponents warred among themselves. Roger added a feature that kicks in when the human player has accumulated 20,000 credits, whereupon the AI opponents rise up and stomp him.

Menconi, Keating and others commented that most designers were essentially honest people, but that it does get difficult listening to gamers complain about "cheating AI." Worse, gamers get upset at honest computer opponents, and defeat them using tactics they would never use against a human. The rules of the game may still be "fair" but written to reflect the strengths of the AI, rather than being biased towards the player. Some good examples of this would be the diplomatic systems for both WARLORDS II and MASTER OF ORION, where the randomness keeps things lively game after game. Another suggestion was to make victory points variable to a small degree, or other similar changes, which keeps the "number-crunchers" from cracking the code easily.

Menconi and company left would-be designers with the following action points. First, AI should be the focal point of the design, changing as the rest of the game changes, instead of being a last-minute "enhancement." Second, whether using real-time or turn-based play, don't end the human player's turn "without permission." Third, don't let the AI cheat so obviously that a human player feels he must "look behind the curtain," but don't be afraid to tweak the AI in ways that make it seem that a human opponent is attempting to drive your forces from the gaming field of battle.

—Terry Coleman

NO GAMER IS AN ISLAND

So, if you were stranded on a desert island, would you want: a) a change of address for your *CGW* subscription; b) the latest Sid Meier game, but no computer; or c) Sharon Stone with a big knife in her hand? Well, you'd think we learned enough about game design to write a question where we're likely to win, wouldn't you? After all, there's no point in attending a conference if you don't learn something.

If it were any more real, you'd be drinking Tang.

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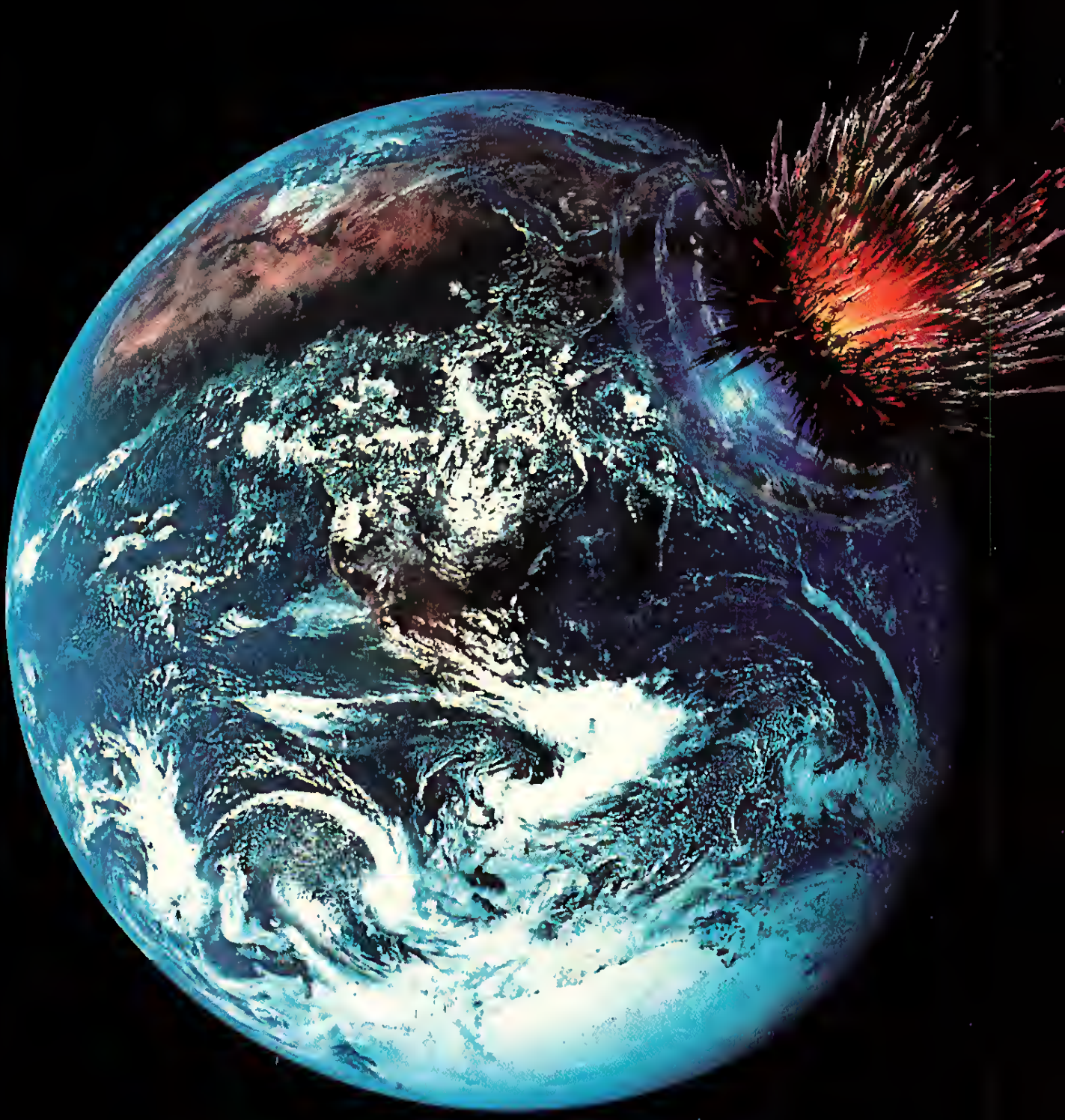

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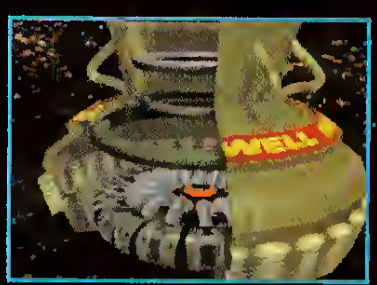

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Virtues And Vices

PAGAN, THE PURPORTED ULTIMA VIII, IS UNLIKE ANY OTHER Ultima you may have played, and that includes both UNDERWORLD games. If you were expecting characterization, rich story, role playing—you're expecting it from the wrong game.

There are, in fact, so many things wrong with PAGAN that it's much easier to start with what is right. First, most of the technical problems associated with the previous ULTIMA are gone. The Voodoo memory manager has finally been dumped; as a result, the game runs under my regular system configuration (DOS 5 and QEMM) without a hitch. While a few people have mentioned configuration problems, by far the majority of players I've talked to have been able to run the game with their standard setups.

The game itself is remarkably bug-free. It never crashed or locked up on me, although there were a couple of instances where the Avatar became stuck and couldn't be moved. I am not sure what caused that, but it was very rare. Overall, PAGAN is a very clean game.

Unlike the previous ULTIMA, items placed in the Avatar's backpack will stay where they are, instead of being jumbled around at random. Eventually, of course, you'll be carrying so many objects that they pile on top of one another, but those used often can be kept on top, and they will stay there.

As in SILVER SEED, there is a key ring that keeps all your keys together. You just put keys on it as you find them, and use the ring to try and unlock a door. If the right key is on the ring, the lock opens.

IN ULTIMA VIII, LORD BRITISH AND THE AVATAR TRY TO CUT A NEW PATH FOR THE RPG SERIES. IS IT THE ROAD TO RUIN?

SCRY SIGHT

No official announcement has been made yet, but sources close to LucasArts Games indicate that a new Indiana Jones movie may be in the works and that a computer game may be developed parallel to the film production. ... Bethesda Softworks has announced that the sequel to THE ELDER SCROLLS: ARENA will not be THE ELDER SCROLLS: MOURNHOLD. Instead, the next installment will be THE ELDER SCROLLS: DAGGERFALL. ... Sir-Tech Software expects STAR TRAIL, the sequel to REALMS OF ARKANIA and second in the expected trilogy, to reach store shelves by year's end. ... Pepe Moreno, designer of HELLCAB for Time Warner, has agreed to develop an as yet unannounced multimedia entertainment product for MediaVision. ... New World Computing is working with Andre Norton on WITCH WORLD, based on the Andre Norton classic novels, and will be developing the game with something of the look and feel of BETRAYAL AT KRONDOR, but using bitmap graphics instead of polygons.

FEELING LONELY?

For the first time since ULTIMA II, the Avatar goes solo, a strange experience for an ULTIMA. At least we are spared the idiot parade of companions that blithely walked into obvious traps and campfires, whined incessantly for food, and usually hit each other in combat. Eating, by the way, is no longer a requirement in the game. While there is food around, it isn't necessary to chow down every so often to stay alive.

Saving and restoring are faster than in SERPENT ISLE. Saving a position is still a little slow, although nowhere near the minute or more we

endured in the previous game. Restoring a position is, comparatively, quite speedy, and a good thing, too, as frequent restoration is a necessity.

After that, sad to say, it's all downhill. You've probably heard that there is running, jumping, leaping, climbing and dodging in PAGAN, and that is true. The game might easily have been called, as a friend of mine put it, "Mario: The Avatar." If the name "Ultima" wasn't on the box, you might think you'd picked up the latest Sega or Nintendo game by mistake.

AM I BLUE? Touring the Den of Skulls is a vacation only a necromancer could enjoy.

In fact, after playing for awhile, I couldn't help feeling that **Origin** had ideas of marketing this on the Sega or 3DO, and put in the ludicrous arcade action to appeal to the console crowd. There certainly doesn't seem to be any other reason for including arcadish antics in a series that has become famous for the maturity of its storylines and approach towards computer role-playing.

Does all this leaping around add realism to the game, increase the power of the story, or enhance playability or fun? No, it simply makes PAGAN a frustrating experience, especially since judging angles and distances is very tricky, and one mistake means restoring the game and trying again. I have never, in any other CRPG, saved and restored as much as in this one.

REMEDIAL SPELLCASTING

That might have been acceptable, barely tolerable, if the rest of the game were substantial. As it is, PAGAN could well be subtitled "School Daze," as a good 75% of it is having the Avatar prove he is worthy to belong to a particular magic organization. "You want to be a Necromancer? First, you must be tested!" "You want to be a Theurgist? First, you must be tested!" "You want to be a Sorcerer? First, you must be tested!"

Worse yet, magic here is cumbersome and awkward. In a misguided attempt to make it as different as possible from the magic of Brittannia, Origin created a nightmare of multiple systems with differing requirements. Forget the handy spellbook that did all the mixing for you and made spellcasting simple. Now it has become a chore.

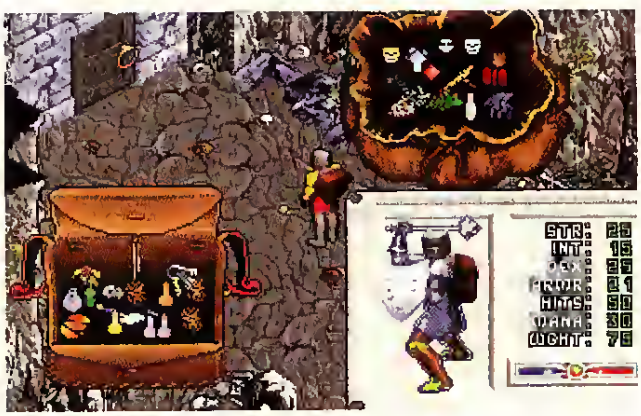
Necromancy spells require reagents, an empty bag, and a magic item. You put the reagents in the bag, then use the item on it to create a token. Clicking on the token releases the spell, and of course the token is used up. Each spell requires a different token.

Theurgy spells use magical foci. First you have to gather the silver ore, then you take it to the blacksmith who forges the ore into foci—one focus for each type of spell. Clicking on the focus releases the spell, but in this case, fortunately, the focus doesn't vanish and can be used as many times as you wish.

Miscellaneous spells, sold by the hermit on the plateau, require books and reagents. As you probably guessed, it takes one book per spell. At least mixing reagents isn't necessary for these.

Sorcery spells are the ones that will drive you crazy, as they are the most elaborate. Here, you actually enchant spells into an item at a pentagram, a process whose tedium and frustration cannot be adequately conveyed by mere words. First, you read the spellbooks in the library and write down the directions for each spell, because these are not contained in the game manual. The books only mention the placement of red candles around the pentagram. You have to infer (from reading another book) that black candles must be placed at any point that doesn't have a red one. If you don't realize this, enchanting can be even more of a nightmare than it already is. Next comes the placement of the reagents. These are also put at various points around the pentagram. Then the item to be enchanted is deposited in the center, and you click on the pentagram and hope for the best.

If nothing happens, you have to run down a mental checklist to see what went wrong. Are the right candles in the right places? Are the candles lit? Are the right reagents placed at the right points, and are they properly placed? The game is *very* picky about that; if a reagent, especially one next to a candle, isn't exactly right, the spell won't go off. Finally, is the right item being enchanted? Not all items can hold all types of spells. When everything is at last correct, the enchantment goes off and the item is filled with a variable number of charges for that particular spell. You have to go through this inane charade for every spell you want. There are a couple of places where you can find pre-enchanted items, but you still have to make up at least four or five of your own. This is fun?



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THE PLOT THINS!

The story, such as it is, can be summed up

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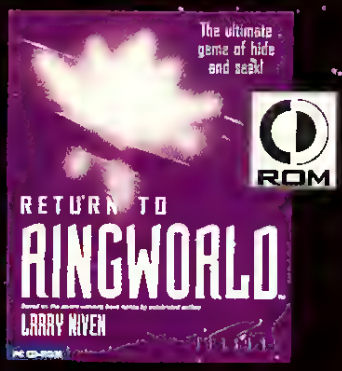

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as "Homeward-bound Avatar Wrecks World. Film at 11." Pagan is a shattered land, crushed centuries before by the Guardian through the actions of the four Elemental Titans (Earth, Air, Fire, and Water). Over time, however, matters improved a bit. The two obstreperous Titans, Hydros and Pyros, were magically bound, so they cause little or no trouble. Lithos receives the dead and is content; Stratos, the benevolent one, shares her power with the Theurgists for purposes of healing. Pagan may not be a happy place, but at least the inhabitants have achieved stability and can survive. Along comes the Avatar and blows it all away, in a very Un-Avatar fashion.

He lies to become a Necromancer; joins the Theurgists solely to steal an item (thereby negating their spellcasting abilities); betrays a Sorcerer who trusted him (thereby becoming an accessory to murder); kills (in supposed self-defense) the Master of Sorcerers to obtain another needed item; and frees the two bound Titans, so the world is wracked by continual violent storms and lava rain. Then he goes on his merry way to the Void, where he destroys all four Titans, with hardly a thought for the consequences of all these activities.

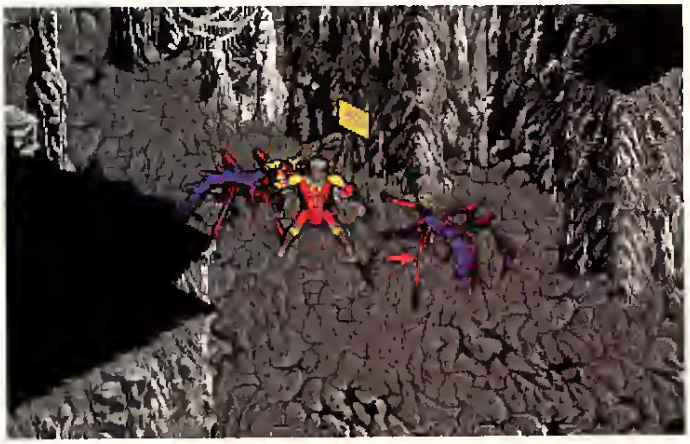
Then again, given the arcade atmosphere, shallow characterizations, and emphasis on action over thought, it is perhaps not surprising that the Avatar has been reduced to nothing more than a self-serving robot. In fact, the very term "Avatar" has degenerated into being only a trademark of Origin Systems; it has lost all meaning insofar as the game and the spirit of Ultima is concerned.

SEEKING AUDIENCE WITH THE KING As you approach this powerful ruler, you'll get stony looks in more ways than one.

The word "robot" is used deliberately. You never see the screen character's face; the entire head is hidden by a helmet. Whenever he stands still, he comes to attention, awaiting the next order. There is nothing human about it. For the first time ever in *any* CRPG, I felt no identification whatsoever with the character. It was only a thing on the screen I maneuvered to get through the game, and nothing more. It's just as well, then, that the "Avatar" can only be male.

RING OF FIRE Upsetting a Thaumaturge is a sure-fire way of getting a very warm reception.

Movement and combat have their drawbacks as well. The mouse button has to be held down continuously to make the character walk; you can't simply click on where you want it to go. Speed is controlled by the length of the arrow cursor; the longer it is, the faster he moves. This is not always easy to control. There are times when the arrow suddenly elongates, sending the character into a run in locations where it is dangerous do so, such as cliff edges and fire mushroom caverns. The simple act of walking through a door can be an exasperating experience as well.



DANCE WITH DEATH Get used to a lot of combat, as the Avatar is a veritable magnet for creatures with a bad attitude.

Combat is much the same. There is no auto mode; you have to do all the maneuvering yourself. If the character is not lined up precisely right with the oncoming critter, he just smacks empty air while the monster shreds him. Fortunately, almost all the monsters are stupid and slow-moving, so they are easy to avoid except in the most confined spaces.

In a departure from all previous ULTIMAS, there are no character levels here, no experience points. Instead, the three attributes of Strength, Dexterity, and Intelligence are increased, to a maximum of 25, by engaging in combat or casting spells. The real purpose of fighting, therefore, is to bring up strength so the character is able to carry more stuff. Once strength has reached maximum, combat serves no purpose and should be avoided unless absolutely necessary.

There are other things I could go on about: weak points in the plot, hollow conversations, cardboard-character NPC's, monsters that ignore everyone but the Avatar, the amazing apathy of the inhabitants (no one seems to notice the terrible storms or lava rain), but just mentioning them is enough.

Overall, PAGAN is a disaster, and an embarrassment to Origin, Lord British, and ULTIMA fans everywhere. It tries to go in two directions at once, and succeeds only in tearing itself apart, failing dismally on all fronts. It may have "Ultima" on the box, there may be an "Avatar" (of sorts) in it, but that does not make it an ULTIMA. Given what I experienced here, I am not looking forward with any eagerness to ULTIMA IX. If there is one, we can only hope it will not be anything like this.

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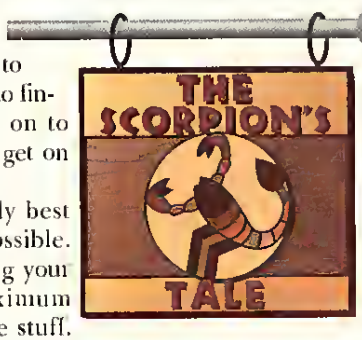
The Straight & Narrow Path Of Pagan

Scorpia Takes You On A Walking Tour Through Ultima VIII

THIS MONTH, WE OPEN THE DOORS ON A SLIGHTLY DIFFERENT TALE. FOR THE FIRST TIME EVER, WHAT FOLLOWS are not hints, but explicit directions on getting through some of the tougher parts of PAGAN (if you don't want to see this, better stop reading now). I have taken this step mainly to help anyone playing it to finish quickly and move on to better things. So, let's get on with it.



Combat is generally best avoided whenever possible. Still, you want to bring your strength up to maximum quickly to carry more stuff. The easy, if tedious, way to do this is to find a quiet place (the palace cellar, for example), and just stand there bashing away at a wall or door for awhile. Eventually, your ST and DEX will reach their maximums of 25. However, the only way to increase INT is to cast spells, and plenty of 'em.

Money isn't all that important. You will need 250 coins at the end to purchase Ethereal Travel from Mythran, so make sure you have that much put aside. You do NOT need any of the other spells he knows, so if you want to save money, don't buy them. You do need to buy the secret door scroll, though, as it's nestled in a couple of places later on.

As for all the jumping, I don't have any tricks to share. It is wise to save after every jump when possible (*never* save on anything that isn't stationary). Angles are often tricky, and it isn't always easy to judge distances correctly. The path to Lithos is the single worst sequence in the game. After that, it's not so bad, but you will be doing leaps and jumps right through to the end, so get used to it.

Tenebrae: Find the library and talk to Bentic. This is the beginning of the main path through the game. Talking to him will trigger certain responses from Mythran that otherwise do not appear, so make sure you find the library and have that chat.

Hermit: Leave by the north gate and follow the road up to the cave that leads to the Plateau. The cave is a straightforward path, although do be careful at the jumping stones. To open the southern gates in the cave, cross the bridge to the ruined building. Do not touch the single lever standing apart from the others. Pull all levers that do NOT have bones or bodies in front of them. Then recross the bridge and pull the lever by the winch. Continue on and out to the plateau and Mythran's house.

Mythran will give you the recall device, which can teleport you instantly to any active receiver on the island. It will work anywhere except one place: the Sorceret enclave. You CANNOT teleport out of that area, although you can 'port in. You have to go all the way back to the double doors before you can teleport.

Special Reagents: The executioner's hood is in a pit south of the graveyard entrance (the stone arch). A couple of changelings wander around in it. The hood is in the center; the leaves are hard to see, so look close. The sticks (they look like twigs) are under the tree by the burned-out house in West Tenebrae. No other wood will be accepted.

Catacombs: This is a nasty place, with plenty of undead roaming around, traps here and there, and floors that occasionally give way, dropping you to an unpleasant death. Be careful where you walk, and save often (it's usually safest to stick close to the walls, but that isn't a complete guarantee of safety).

Find the small, freestanding, roofless room, with a ghoul and a jewelry chest inside. When you enter, the floor gives way, sending you down to the beginning of the path to the Necromancers.

One troublesome place is the lava. Jump over it and climb to the top of the rock island. Walk north, watching for a big single rock on the right-hand side. Jumping to that will teleport you to the next Necromancer.

LOST AND LONELY? If you feel a little too much like a hermit in Ultima 8, read on.

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Path to Lithos: In the catacombs, enter the small door leading to the caves. Go generally southwest and then west, until you reach an area with two stone bridges. Cross the lower one, and continue to the fire dart trap with a wall in front of it. In the center of this area is a pedestal with a switch. Pull it, then climb the pedestal and jump over to the door that leads to Stone Cove.

In the cove, call up a golem to open the double doors. You must cast the spell on *dirt*, not stone. Remember this is an earth golem and it can only be created from earth.

Go northeast to the ruined house. Be careful; part of the ground here is unstable. Pull the lever outside, then climb in and pull the other one. Go around and up to the northwest, passing a large rock with an "A" rune on it. Dodge the fireball spitters and continue up to the end of the passage. A bridge has now appeared across the chasm to the left.

This is the start of the jumps. You must pass the disappearing bridge, the sliding platforms, the vanishing platforms, the forcefield area, the fire mushroom cave, and then the sinking stones.

Past the stones, as you go up north, stay close to the west wall and watch for two narrow passages (these are very easy to miss, so watch carefully!). The first passage leads to a chest with some potions, under which is the key that unlocks the door in the second west passage.

That door leads to more sliding platforms. After you get across, simply walk north between the rows of undeath, and have your little meeting with Lithos (whew!).

Pit of Death: Reached by going through the small door in Stone Cove (Scion Key opens it), and heading west. You'll come to the Conventicle of the Dead pretty quickly. Walk right up to the building. Cast a golem spell on the dirt patch inside and have the golem open the door. Use Open Earth on the center of the dirt to get the Heart of Earth. Once you have that, you are finished with the Pit of Death.

Fate Door: Open with the Scion Key. Summon up golems to open locked doors. Drop the Zealan shield to animate the statues. Use the secret door scroll to get into Khumash-Gor's room.

Argentrock: The test of wisdom is tricky, as there are NO books in the library about their philosophy; all the reading material is about the air spells. This makes answering the questions properly somewhat difficult.

The key to the correct answers is to keep in mind the precepts of honesty, compassion, and humility. For instance, if you're asked about the dying commander, you tell him honestly the battle has been lost. Likewise, if you get the one about the prodigal, you welcome him back. If others are boasting about their favorite Titan, you keep your mouth shut and say nothing about Stratos. And, of course, you would prefer the breezy porch (Stratos being an air deity).

COMBAT CHAOS Death and destruction are everywhere, as the bodies pile up in classic arcade style.

Thief: Talk to both Xavier and Stellos, mentioning that you have talked to Torwin. Then find Cyrrus, cast Hear Truth, and question him about Torwin. You'll learn that Torwin has gone to Windy Point. NOTE: Torwin does not appear at the Point until you hear about it from Cyrrus.

DIALOGUE DILEMMA Even with the arcade sequences, you must still get a lot of info the old-fashioned way—interacting with NPCs.

Devon: After Devon has been arrested, you have to read Bentic's journal, which is in the evidence room (far right) in the palace cellar. Use the secret door scroll to get in and read the journal.

Sorcerers: Devon will send you to them after Hydros is free. In the caverns, find the double door with spikes on top. The lever outside makes one door go down and the other come up. Ignore the lever and find the hard-to-see switch on the left-hand wall; this lever opens up a secret door to let you through.

The game manual doesn't have much to say about the details of Sorcerer spells. You will have to write down on your own the constituents of all the spells, as well as the placement of candles and reagents.

Things to keep in mind when enchanting: All the points of the pentagram that do not have red candles must have black ones. All candles around the pentagram must be lit. Reagents must be placed *exactly* right, especially when next to candles.

Obsidian Fortress: The spells you need to have are Flash, Armor of Flames, Endure Heat, Extinguish, Ignite, Banish Demon, Flame Bolt, Explosion, and Summon Demon. There is a talisman for Summon Demon in the tests, so you don't need to make one. However, a talisman with several Banish spells is handy. Be sure to pick up and keep an extra red candle.

The tests are fairly simple in themselves, as long as you are reasonably careful. I found that using Fade From Sight was helpful, as not even demons can see you when you're invisible.

Endure Heat & Flash: these are relatively easy, both having short, straight paths to the symbols.

Armor of Flames: There are two things you want to find. One is the Summon Demon talisman. The other is a pentagram with a demon shield on it. The symbol is due south of the shield (functions as an AoF spell when equipped).

Extinguish: Find the flaming pentagram and use extinguish on the *candles*, not the big flames. When the last candle goes out, all the flames will go out as well, allowing you to take the magic helm and the symbol below it.

Tongue of Flame: Unfortunately, the only way to get it is by killing Malchir, as he has the Tongue on his person. Be certain to read the book, "The Destruction of The Temple." It has the only mention of the "Tear of Seas." Until you have read the book, you won't be able to get the Tear from Devon.

Freeing Pyros: Go to the big outdoor pentagram and toss the Tongue into it. After the fireworks stop (Pyros has been freed), take the Tongue back.

Tear of Seas: Find Devon in the palace

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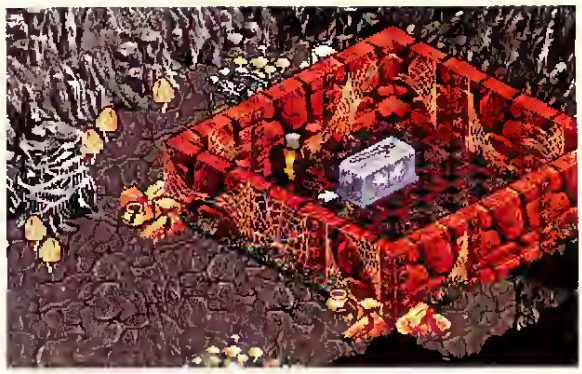
and ask about the blackrock fragment. Eventually, he'll recall the odd rock he found and give you the key to the chest, which is in a room on the left-hand side of the palace. Only Devon's key can open this chest.

End Game: Show Mythran the Tongue of Flame. Then talk to him a second time (new conversation), and say you want to re-create the gate. He will offer you the Ethereal Travel spell (he will only do this when you have all the pieces, the two titans have been freed, and he's seen the Tongue). There is no return from the Void (recall will not work here), so be sure you have everything you need/want before leaving.

The Void has a large pentagram and four paths off it. These, of course, lead to the four titans. You can do them in any order. After each blackrock fragment has been powered, put it on the pentagram in one of the following locations: Breath SW, Tongue NW, Tear NE, Heart SE.

Hydros & Stratos: These are not too difficult, as for both you just need to do some jumping across stones. Be careful on the way to Stratos, though; some of the stones break away when stepped on.



FOCUS POCUS Theurgical magic requires transforming silver symbols into magical foci upon this altar.

Pyros: Jump north across the lava from where you start. Go east, then south, and cross the second broken bridge. On the other side, go east, then north to the dead forest. It's safest and fastest to walk along the forest's outside southern edge.

At the end is a box with ten white balls in it. Be careful; the ground is not stable, and you might fall into a lava pit. Take the box, go back the way you came, over the bridge, and north to the design with flashing colors. Put one ball on each color, then Jump/Flash across the stones to Pyros.

Lithos: This one is perhaps the most difficult, as you have to make your way through a series of caves. Keep going until you come to the place with the lava and stones. You can walk around the edge of the lava and reach the other side without jumping. Continue on, until you come to a cave with a triangular corner in the north wall. That is where Lithos appears, so be sure the Heart is ready.

Once the four activated blackrock fragments have been placed on the pentagram, along with the obelisk tip, double-click on the tip, then on yourself. This activates the tip, and automatically brings the black gate into existence. Step through, and your long odyssey is finally over.

That's it for now. In the meantime, if you need help with an adventure game, you can reach me in the following ways:

On Delphi: Visit the GameSIG (under the Group & Clubs menu).

On GEnie: Stop by the Games Round-Table (type: Scorpia to reach the Games RT).

By US Mail (include a self-addressed, stamped envelope if you live in the United States): Scorpia, PO Box 338, Gracie Station, New York, NY 10028.

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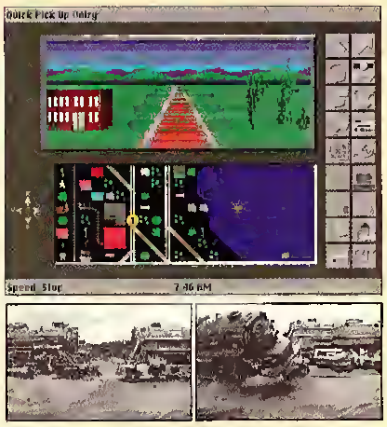

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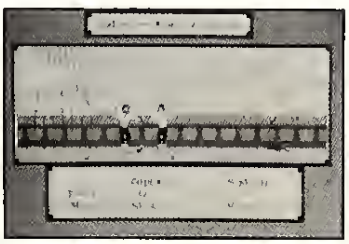

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Necromancing The Throne

MicroProse's Dragonsphere Marries Magic And Politics

by Allen L. Greenberg

ONE OF THE MOST INTERESTING YET LEAST READ JOURNALS OF THE MODERN AGE IS *THE LEGAL NECROMANCER*, a review of satanic, demonic and other unspeakably horrible powers, and how they relate to modern law and politics. That this publication has remained largely unknown may be attributed, in part, to the various incantations which have rendered it invisible ever since its embarrassing right-wing editorials during Watergate. The main reason, however, for the journal's anonymity is its large number of contributing hell-spawn demons, who are reluctant to reveal that they are also practicing lawyers and politicians. It should be no secret to fantasy game players, however, that government leaders and sorcerers have often attempted to use each other to advance their mutual quests for power, and that this has almost invariably led to the death of either one or both parties. DRAGONSPHERE, an engaging adventure game from **MicroProse**, provides yet another example of explosive results when magic is carelessly mixed with political ambition.

Dragonsphere

Price: $69.95
System: IBM with CD-ROM
Protection: None
Requirements: 386-16 MHz or better, 2MB RAM, VGA graphics, 12MB hard drive space
Publisher: MicroProse
Hunt Valley, MD
(410) 771-0440

DRAGONSPHERE boasts an imaginative story in which you, as King Callash of the fairy tale realm of Callahach, are charged with freeing the land from the abuse of the evil wizard, Sanwe. Compared to a dragon throughout the game, our villain appears for one year out of every twenty. During that year, in the tradition of many politicians and evil mages, he murders, destroys, pillages and generally makes a nuisance of himself. When Sanwe makes his deadly cameo appearance, he arrives on Earth in a mysterious tower. Unbeknownst to our evil lord, however, an imprisoning bubble has been conjured into place around the tower by Ner-Tom, a good ("not morally-challenged" in political terminology) wizard working for the previous king. As the end of the twenty year cycle comes closer, it appears that the magic sphere is beginning to fracture, and that Sanwe is about to break free despite Ner-Tom's efforts. Thus, the young king must follow certain prophetic instructions in order to eliminate Sanwe more permanently.

While King Callash's task seems simple and straightforward at the game's beginning, you will soon realize that there is a lot more to DRAGONSPHERE than was originally presented. Sanwe may not realize it, but many in the king's castle have conspired to use the wizard's foul presence in order to increase their own share of power in Callahach. At the top of the list are the king's mother and wife, who discuss the hero's progress in hidden whispers even as they provide protective gifts to aid him. The king's brother, MacMorn, is far less secretive about his aspirations, and even goes so far as to plant his conniving *derriere* on the royal throne before the king so much as departs on his quest. Meanwhile, the royal wizard, Ner-Tom, has mysteriously disappeared from the castle for reasons which you will discover as the game progresses. A surprise revelation, midway through the game, complicates the plot even further. To complete the game, you must extricate yourself from the various snares which have been laid out by many different and devious plotters.

RACES, COLORS, CREEDS

The kingdom of Callahach is home to several different races, and in order to penetrate the game's many mysteries, it will be necessary for you to earn the trust and friendship of each of these races. A race of Faeries, anxious to stay on good terms with the king, yet unable to resist the urge to tease him into frustration, possess a tremendous amount of knowledge. They will only give up their wisdom after an exhausting round of trivia and IQ questions. Elsewhere, a race of shapeshifters are forced to live in what can only be described as a fairy tale ghetto. For fear that these creatures might escape and steal the identities of others in the kingdom, humans permit no one to enter or leave this oppressed area of Callahach. Yet, it is with the shapeshifters you must negotiate in order to solve more than one mystery which arises on your quest.

A desert-dwelling race calls their land "Soptus Ecliptus," where their recreation-loving Caliph is the ruler. The Caliph does not appear to take his responsibilities as leader at all seriously, but his position does allow him to play games with anyone who enters the tent. This "Monty Hall of the Desert" will also reward winning players with valuable and useful prizes from his treasure bag, so it is certainly a good idea for you to "come on down." Problem is, the people of Soptus Ecliptus speak a different language than the rest of the

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kingdom, requiring that you take a crash course in Soptus Ecliptish from the faeries or shapeshifters.

The last race to be found are the Shak. While they appear to be a collection of talking birds, they actually claim to be humans who somehow acquired the gift of flight. Unfortunately, they just happened to make their home on the same mountain on which Sanwe's foul tower appeared. The Shak are understandably bitter at having been trapped inside Ner-Tom's confining bubble, but nonetheless make an important contribution to the restoration of normalcy in the kingdom. Each race's village must be visited several times before the game is over, but there is no set order in which these visits need be accomplished.

GHOST OF GAMES PAST

DRAGONSPHERE is presented using the same interface mechanics as those found in MicroProse's REX NEBULAR and RETURN OF THE PHANTOM: ten verbs alongside a scrolling list of inventory. By using the mouse to point to the verbs, objects in the inventory list, and whatever or whomever appears on the graphic screen, DRAGONSPHERE allows a healthy number of commands to be constructed. In addition, pointing to a specific object in the scrolling inventory list allows you to choose one or two commands that are specific to that item.

DRAGONSPHERE's story is tightly constructed so that the tedium of travel from one location to another is kept to a minimum. My only complaints arise towards the game's climax, when the number of objects in the hero's inventory grow somewhat unwieldy. At this point, it becomes necessary for you to switch from one object to another in rapid-fire succession. The keyboard remains useless, as it does throughout the game, which prevents

WHAT SAYEST THOU? Choose carefully, as you cannot simply scroll through all the choices for the one most favorable.

shortcut commands and more rapid access to the inventory. The mouse interface may be altered from standard to easy, while another option allows you to change the game's difficulty level, although the results of this change may not be immediately obvious.

As was the case with RETURN OF THE PHANTOM, DRAGONSPHERE features such eye-opening animation effects as can only be described as true-to-life. Characters walk, run or even shift position with such natural grace as should only seem possible with human muscle in action. The backgrounds are drawn in pleasing detail, and colors are muted so that the graphics are generally realistic. The compact disc features the digitized voices of each of the characters, although you must still read the game's extensive narration for yourself. Despite some amusing efforts to enhance the non-human voices with special effects, the game's vocal sounds, unlike the graphics, are somewhat hollow and lifeless.

DARE YOU APPROACH? Every action taken has a distinct effect on the outcome of the game.

DRAGONSPHERE is a moderately difficult exercise to complete, though some very experienced game players may find it too brief or simple. There is a lot of conversation in the game, and much of DRAGONSPHERE's challenge involves choosing the correct response to another character from a list of possible statements. The penalty for choosing a less than ideal response may be to delay certain events in the story, or to make certain tasks more difficult. In these cases, however, the overall flow of the story is not disrupted. These are not the type of conversations that may be repeated until all choices have been selected, so you only have one chance to select the proper response. There are several opportunities for the hero to die, but the program quickly resurrects him and allows you to continue the story from the moment prior to committing the fatal error.

In addition to its much appreciated lesson that mages and public servants should stay away from each other's line of work, DRAGONSPHERE features some interesting puzzles with a story worth following. In general, an enjoyable and satisfying piece of work.

The tools MicroProse used to create Dragonsphere were recently sold to Sanctuary Woods. Though MicroProse is apparently finished with adventure games for the time being, hopefully Santuary Woods will put this now-mature game system to good use. -Ed

DRAGONSPHERE

★★★★

PROS Rich fantasy cultures, solid graphics, non-repetitive conversations, seminal story

CONS Mediocre voice performances, sometimes hollow sound effects

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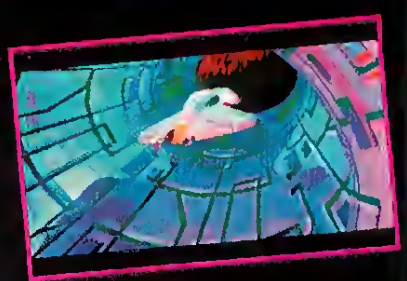

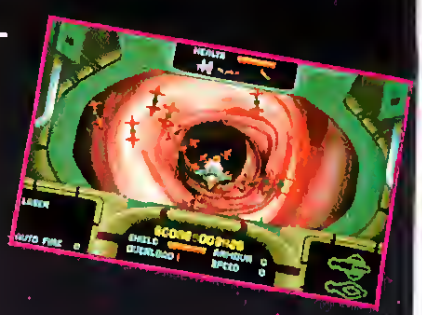

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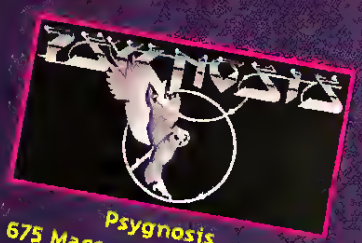

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Circle Reader Service #193

Blount Goblin, Ace Reporter

Goblins Lose Two I's But Come Back To Get The Story

by Jeff James

GOBLINS QUEST 3 (GQ3), THE LATEST ITERATION IN **Coktel Vision's** LINE OF LIGHT-HEARTED PUZZLE/ADventures, continues in the three-toed footsteps of the previous two Goblins games, but takes a few tiny steps toward the more traditional adventure game.

In the first Goblins game (*Goblins*), three goblins were at the player's disposal, each with a unique set of capabilities, and they were used cooperatively to overcome many obstacles. In GOBLINS 2, only two goblins, Fingus and Winkle, were available. Fingus was polite and mannerly, achieving his goals with tact and diplomacy, while Winkle operated with trickery, deception and a swift bash to the skullcap. In GQ3, only intrepid adventurer/reporter Blount begins the quest. Although he does need assistance from a variety of characters in order to emerge victorious, he is undoubtedly the star of the show.

GoblinsQuest 3

Price: $29.95
Systems: IBM, IBM CD-ROM
Requirements: 3B6 or better, 2MB RAM, VGA graphics, 9MB hard drive space; supports AdLib, Sound Blaster, and Pro Audio sound cards.
Protection: None
Developer: Coktel Vision
Publisher: Sierra On-Line
Bellevue, WA
(800) 757-7707

TO PUT IT BLOUNTLY...

Situated between the rival kingdoms of Queen Xina and King Bodd, the maze under Mount Foliandre has been the source of conflict and vicious squabbling between the two kingdoms for centuries. Whichever kingdom can successfully send a representative through the maze will win untold riches and other rewards. Unfortunately, the guardian of the labyrinth—a fearsome chap named Behorn—has kicked the bucket, losing the key to the entrance of the maze in the process. More alarming is the disappearance of Behorn's beautiful daughter, Wynonna. Thrust into this maelstrom of rapidly unfolding events is Blount, journalist extraordinaire for the esteemed *Goblins News*. A curious, tenacious reporter—far from a cowardly "yellow" journalist—Blount leaps aboard a flying ship and sets his sights on unraveling the mystery of Mount Foliandre. Your task is to guide the intrepid Blount through a series of puzzles to rescue the princess and uncover the mysteries of the catacombs.

Although Blount is the primary character in the game, several other creatures will drop by to give him a hand. The first is Chump the Parrot, seen in the first area aboard the flying ship. Ooya the Sage and Fulbert the Boa Constrictor make cameo appearances later. Unlike Blount, most of these secondary characters cannot pick up objects, but they can manipulate the environment (by pulling ropes, distracting goblin guards, etc.). You'll get the opportunity to use other Goblin characters (such as Princess Wynnona) in some instances, and they behave just like Blount. Most of the game screens that Blount and friends must traverse are covered in obstacles and objects. In order to advance to the next level, an object must be retrieved or an escape route must be found. Most levels will usually have a leering guardian or two which Blount must outwit in order to pass.

NO NOBBLIN' GOBLIN

Ordering Blount and his colleagues around is an exercise in point and click simplicity. Click on a character to take control and then point at the location you want him/her to travel to, an object to be retrieved, or a character with whom to banter. Blount and his compatriots are usually rather adept walkers,

GOBLIN NEWS TRAVEL SERVICE You control the destination of Blount, Ace goblin reporter, as he travels in his flying boat to the habitats of several cute characters, in this easy-to-use interface screen.

WORKING ALL THE LIVE LONG DAY Creatures you meet on your journey carry on in ways that Saturday morning cartoon characters might envy.

able to intelligently pick their way through on-screen obstacles to reach their destination. Directing more than one character at a time is sometimes required, so precise timing is often essential. For example, Chump the Parrot must pull on a rope so Blount can snatch an umbrella hanging from the other end. For additional control options, an icon-covered tool bar resides at the top of the screen, not unlike the one found in more conventional Sierra adventures. These icons allow access to game options, "jokers" (game hints), inventory, the latest issue of the *Goblins News*, a game map and a miscellaneous options menu. The jokers are designed to help you out of a jam, and selecting one will provide a complete walkthrough for the current level. Although only five jokers are available, savvy gamers can save their game position before using the hint, then reload their saved game to generate an endless supply of game hints. If you're less willing to "cheat," perusing the *Goblins News* section will give you a brief rundown of the current dilemma facing Blount.

Unlike previous installments in the Goblins series, GQ3 features a large dose of plot twists, unexpected obstacles, and other story elements like those found in a conventional adventure game. Within the first few scenes of the game, Blount is attacked by a werewolf and afflicted with lycanthropy. Several episodes later, Blount's ability to turn into a hairy, smelly, slavering werewolf allows him to pass otherwise insurmountable obstacles.

Most of the puzzles can be overcome with a healthy dose of trial and error, although some leave common sense babbling and drooling in a corner. The jokers can be a lifesaver, but they let the cat out of the bag with one great leap. Puzzles that at least gave a nod to conventional logic, or, better yet, a help system that provided an increasingly more specific series of hints would have been preferable.

What GQ3 shares most with its predecessors is a healthy sense of humor, with innumerable sights, sounds and animation to amuse and entertain. In one animation, Blount tugs on a rope only to be whisked upwards, followed by the resounding clang of a large bell. Blount drops into view in monkish garb, hanging onto the rope as if ringing the morning bell at a monastery. He zips upwards once more, then returns as the original Blount. Such slapsticky bits pervade the game, and more than once I found myself laughing out loud.

WHO NEEDS A SAND TRAP? You'll have to work on both your short irons and mental game to get through this puzzle.

THE REST OF THE STORY

GQ3 is the most visually impressive in the Goblin series to date, with bright, expressive 256-color VGA graphics in almost all scenes and segues. As in earlier Goblins games, each character is imbued with a unique set of mannerisms and characteristics. Blount occasionally scribbles on his notepad, taps his foot or scratches his armpits while waiting for the player to perform an action; Chump flaps awkwardly in the air for a few moments and then lands soundly on his noggin. There's a silly, good-natured air around all of the characters in the game. The CD version is exceptionally colorful, with loads of cartoon animation and animated cut scenes which segue into nearly every level. For example, after vanquishing the puzzles of the first level and jumping off the flying ship in a bucket, Blount plunges from a great height and impacts the ground with a tiny puff of smoke (and a hat tip to Wily E. Coyote). Blount also offers spoken hints, thoughts, and suggestions to you during play, spoken with a voice that fits the animated character to a 'T'.

At its heart, GOBLINS QUEST 3 is a light adventure of grand comic proportions. It would make the perfect game for the adventuring initiate, although novices should be aware that some of the puzzles are wacky to the point of being unsolvable without assistance. Still, the hints are there (and though they're often too tempting, they're better than a 900 hint line), and gamers can choose to use or lose them depending on their skill level and taste. But no matter what your experience is with puzzle games, it's the charming characters and goofy plot elements that will keep you hacking away at the puzzles to get the next scoop. Blount Goblin, Ace Reporter, will be proud.

ALL TUCKERED OUT? Even a goblin would welcome a chance to catch his breath during some of the colorful segue sequences.

GOBLINS QUEST 3

★★★ 1/2

PROS Excellent animation, wacky puzzles, nice tongue-in-cheek story, great value for casual gamer

CONS Obscure puzzle solutions, lacks cooperative puzzles

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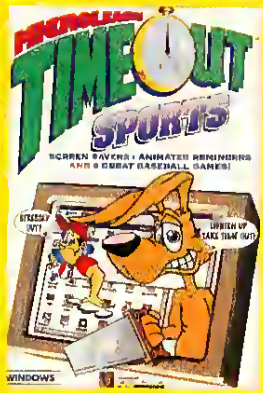

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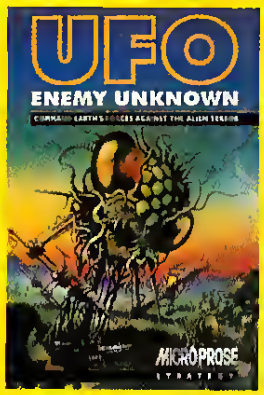

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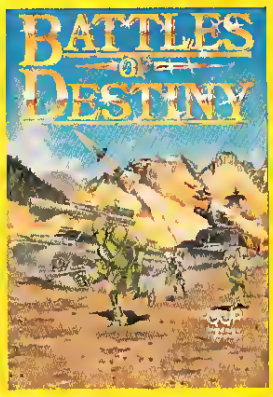

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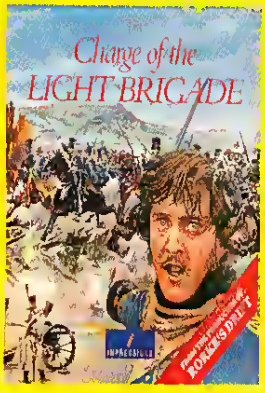

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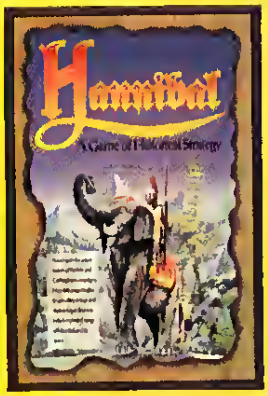

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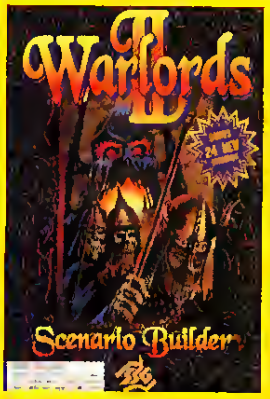

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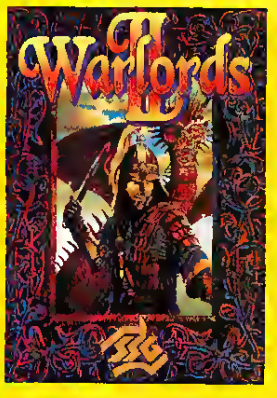

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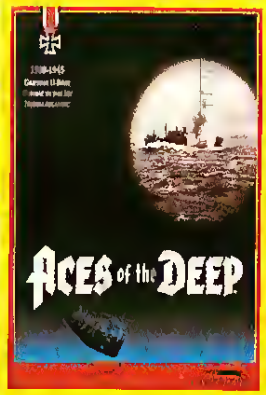

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A Flood Of Realism

Disciples of Steel Drowns in Details

by Petra Schlunk

CGW EXPECTS ITS REVIEWERS TO FINISH THE GAME. UNFORTUNATELY, AFTER 50-PLUS HOURS OF PLAYING **Megasoft Entertainment's** DISCIPLES OF STEEL, I'm not even close to finishing the game. So, this time, the editors made an exception. They would like to hear from anyone who's finished it, though, because this game is the most incredibly detailed role-playing game I've grappled with, also one of the most repetitive. For those who like big games and lots of combat, this may be a plus. For me, it was a minus.

DISCIPLES OF STEEL has a combat system similar to that of the AD&D gold box series and a heavily statistically-oriented character development system which is something of a cross between those in REALMS OF ARKANIA and DARKLANDS. The downside is that these features are embedded in a matrix of obsolete graphics, sound and movement capabilities.

Disciples Of Steel

Price: $59.95
System: IBM
Requirements: 386 or better, 2 MB RAM, 7 MB hard drive space, VGA, mouse; supports Sound Blaster and compatible sound cards
Protection: Documentation look-up
Designers: Megasoft Entertainment
Publisher: FormGen, Inc.
Scottsdale, AZ
(800) 263-2390

The ultimate objective is to defeat the evil that has beset the world of Lanathor. To perform this noble task, you must assemble a hand of eight heroes and develop their skills through the completion of quests and the destruction of the many monsters that stand in your way. Eventually, you will build a large army of troops from captured villages (if you have successfully assassinated a lord or laid siege to a castle) or from friendly ones (if you have completed enough quests for the local lord). This army will be critical in defending your home village of Farnus from an attack by the "evil army" at the end of the game (over a year of game time). Don't expect to build this army in a reasonable amount of time, however. Fortunately, for those of us less militarily-inclined, DISCIPLES OF STEEL offers more than one way to successfully complete the game.

Before raising armies, you must assemble a party of worthy adventurers (disciples). Character generation in DISCIPLES OF STEEL proceeds along standard lines; you choose gender, race and class and then the computer "rolls" the character's statistics. Female characters have a lower strength potential than males, although they make up for this deficit with correspondingly higher values for intuition and charm. (It's okay, myths are important.) The most important thing to achieve during character generation is a balance between fighters, spellcasters and special classes in the starting party. You can make up for some initial mistakes in character selection because all characters are theoretically capable of learning *any* skill, from wearing armor to administering first aid or casting spells. The only exception is for the ability to repair armor and weapons, a skill that is the exclusive province of the blacksmith.

Characters do not develop by levels in this game. Instead, as quests are successfully completed and as battles are won, characters will earn experience points. These points can be allocated to raise skills and statistics. Skills that are "natural" to a character's class, such as armor skills for warriors, require fewer experience points to increase than those that are not natural to the character's class.

GETTING YOUR BEARINGS

After you have created your party (or after you have discovered the "quick start" party), the soon-to-be-legendary Disciples of Steel will find themselves encamped outside the city of Farnus. Before breaking camp, the adventurers must agree on an appropriate battle formation (which can always be changed). You may also alter the composition of the party and rest your characters while camping. Resting is used to recoup hit points and spell points and to heal injuries of various types. Spell points and health will also recover with time as you wander, while your blacksmith is repairing the party's weapons, etc.

Finally, your eager disciples are ready to begin their grand adventure! Well, maybe not *quite* yet. First, you have to become familiar with the game's interface. Although almost every command can be accomplished via point and click, it requires a considerable amount of experimentation to learn *how* to access some of the menus and options. The sparse documentation is of little help. In the interests of realism, there are a huge number of menus and things that your party can do under different circumstances. These things include replenishing food and water supplies, examining and repairing items, healing wounds on different body parts, looking at pictures of the wounds (who needs good taste?) entering buildings, buying and selling items and stealing

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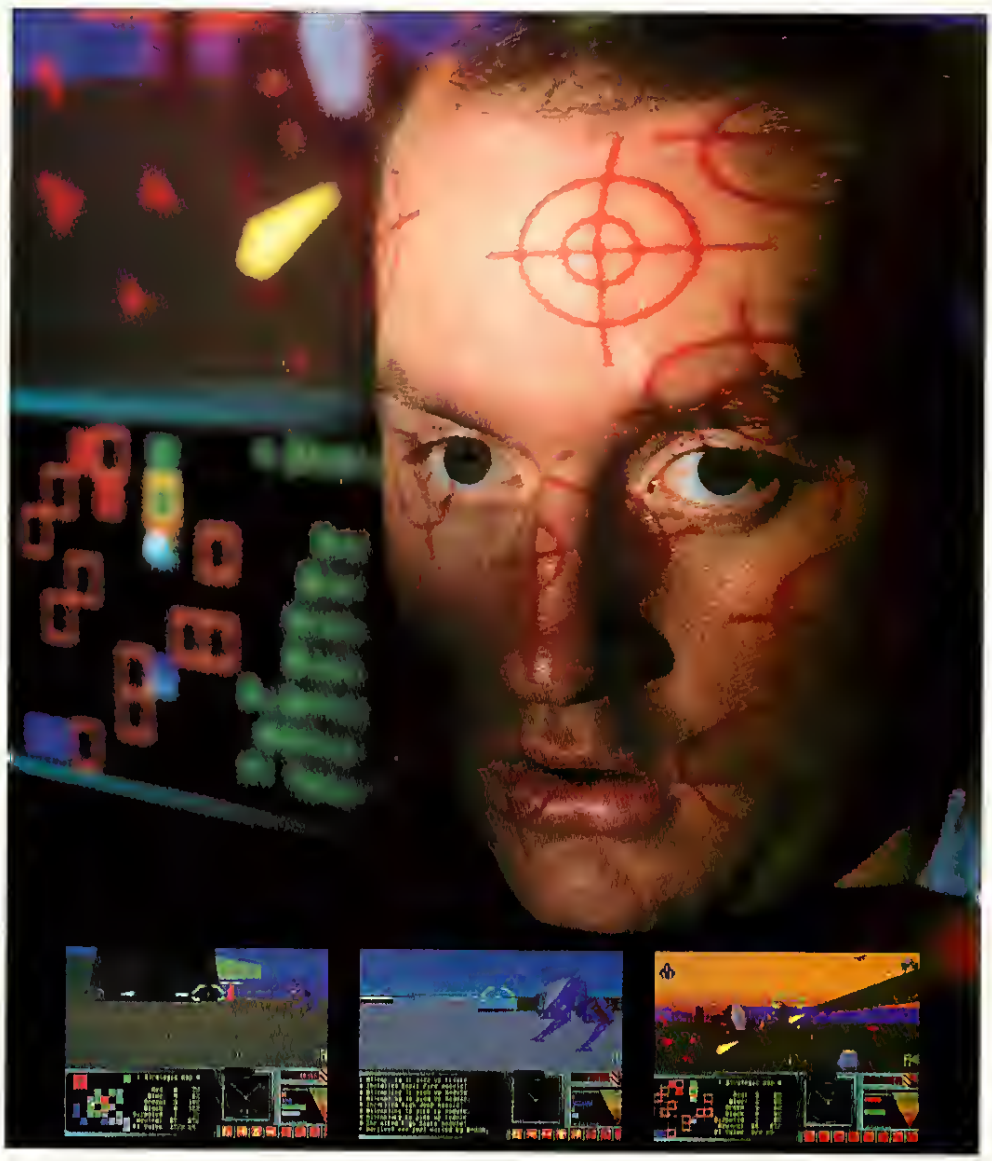

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WANDERLUST Those hardy adventurers determined to complete DISCIPLES OF STEEL will spend countless hours traversing the rolling lands.

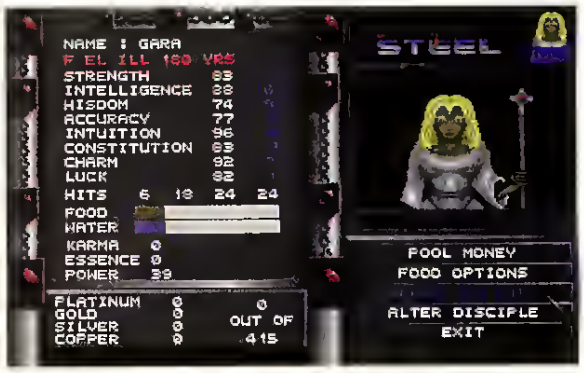
things. The trick is *finding* the menus; after that things will run fairly smoothly.

THE HAZARDS OF HOOFING IT

Now your party is finally ready to begin its journeys. Except for traveling in dungeons (where the perspective is first person), you will have an overhead view as you make your way through the world. In case you get lost, you have access to a world map when you journey overland between towns and other noteworthy locales. Getting lost, however, is the least of your problems. As your party journeys through Lanathor, it is beset by savage monsters with the gleam of destruction in their beady little eyes. In typical FRP fashion, some of these encounters will be random, others predetermined. Unless the monsters have surprised the party, you may talk to them or try to run away before combat begins, with the latter course recommended for most encounters at the beginning of the game.

Combat in DISCIPLES OF STEEL is turn-based and takes place on an invisible grid from an overhead viewpoint. In each combat round, characters have a certain number of moves (determined by encumbrance and injuries) to allocate to fighting, casting spells, healing and moving around the battlefield. In addition to these standard combat options, you may surrender, pick up treasure, allocate experience points and look for hidden opponents. Unfortunately, there is no "quick fight" option so every round requires a new set of decisions.

Even at the "easy" setting, the monsters in DISCIPLES OF STEEL are quite formidable. It took my party several actual *days* of repeatedly fighting the easiest monsters in the game (to build experience) before it could successfully complete one of the earliest quests! Note that characters only gain experience points when they *actively* participate in combat—hanging out on the fringes does not count. Be sure that you allocate experience points to offensive and defensive skill areas early. Higher levels in these skills translate into more accurate, damaging and frequent attack capabilities as well as the ability to take more damage. Fighting battles is also the best way to collect useful weapons and armor and to make money from fallen opponents or from selling loot.



BAD KARMA Most character stats amount to little in terms of gameplay, as the data is immersed beneath a morass of minutiae.

A NIGHT ON THE TOWN!

During their travels, your intrepid adventurers will thankfully encounter more than just monsters. Towns provide shops, taverns for food and gossip, inns for resting, guilds for storing items, temples for healing, and even dungeons. Boat shops allow you to purchase passage to and from islands or to buy boats, should you desire. Palaces are convenient places where leaders can be assassinated, besieged, or asked for quests (if you are in a less adversarial mood).

That many of the quests require visiting dungeons is hardly a surprise. What is a shock is that graphically and otherwise, the dungeons of DISCIPLES OF STEEL are a throwback. Movement in dungeons is limited to turning and walking straight ahead. Monsters remain invisible until you step on them, as do the numerous secret doors. In fact, the only way to find a secret door is to bump into them, hoping to walk right through them. At least the dungeons have an automapping feature, which shows the party, walls, stairwells and exits, making exploration of these areas a little less frustrating.

Worse, DISCIPLES OF STEEL can easily overburden a player with minutiae. Almost nothing happens automatically. The gamer must micro-manage everything: allocate every experience point, mold every character, heal every wound, fix every piece of armor and every weapon, and decide every move in combat, with nary a shortcut in sight. Although such attention to detail is laudable, the emphasis on "realism" is so overbearing that it detracts significantly from the enjoyment of the game. The player is also burdened with a busy interface, since every option imaginable must be accessible at any given time.

Aside from the questionable design decisions, primitive graphics and lifeless sound effects mark this game as being very out of place in today's marketplace. Worst of all, the time investment to make a party strong enough to complete some of the easiest quests is simply tedious, and ruins whatever charm DISCIPLES may have possessed. Statistics are the best thing about this game, but only those looking for a "Stat-O-Matic" role-playing game will be satisfied with the assiduous attention to uninspiring detail in DISCIPLES OF STEEL.

TREASURE HUNT While your party may discover a pot of gold, finding the end of the proverbial rainbow is elusive indeed.

DISCIPLES OF STEEL

★ 1/2

PROS Fairly non-linear, character skills not limited by class

CONS Questionable "realism" over-emphasized, obsolete graphics and sound effects, few interactions with NPCs.

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Shoot The Moon! And Everything Else

Astro Chase 3D: Interplay's Galactic Shooter For The Mac

by Christopher Breen

IT IS THE DISTANT FUTURE OF OUR GALAXY. THANKS TO THE DEVELOPMENT OF THE FASTER THAN LIGHT DRIVE, earthlings are finally able to pack up their troubles and blast off to the four corners of the Milky Way in a celestial rendition of manifest destiny. Real estate and resources are plentiful and cheap, wars and conflict are but memories, and the whole shebang is run from Mother Earth by the benevolent United ConFederation of Planets.

Regrettably, this galactic love fest is not destined to last. From the far reaches of the cosmos comes a testy alien force that quickly throws up a force field around the ConFederation and, in a particularly unfriendly display of its might, vaporizes a chunk of a neighboring star system. This one-sided engagement is followed by weeks of protracted battle between the cuddly ConFederation forces and the evil interlopers.

Meanwhile, back at the lab, ConFederation scientists are working feverishly on a heretofore secret weapon—the Ultraship—a spaceship capable of violating many physical laws of motion (the sucker turns and backs up on a dime), while dealing massive doses of death to its opponent. Unfortunately, due to mounting market pressure and the fact that the aliens have lobbed several Mega Mines toward the old home planet, only a single Ultraship could be built.

Astro Chase 3D

Price: $59.95
System: Macintosh
Requirements: System 6.07 or higher, 3.5MB RAM, 6MB hard drive space; supports Gravis GamePad, MouseStick II and monitors up to 21"
Protection: None
Designers: Richard Spitalny, Peter Jablon, and Ofer Alon
Publisher: Interplay
Irvine, CA
(714) 553-3522

It should come as no surprise that the responsibility for piloting the Ultraship and blasting each and every Mega Mine out of the heavens falls to the owner of ASTRO CHASE 3D. Atomizing these slow-moving pyramids wouldn't be a particularly difficult goal to achieve if it weren't for a large number of hostile alien craft, various asteroids, and the Ultraship's nagging energy requirements.

S.A.G.E. DEVICE

The game opens with an introductory scene that highlights its proprietary technology, the Software Accelerated Graphics Engine (S.A.G.E.). According to the manual, "S.A.G.E. manipulates bitmapped graphics so quickly and with such memory efficiency that it can render highly detailed and realistic environments in real time." Translation: The graphics, although a touch grainy, look darned cool, and motion is incredibly smooth.

At the beginning of each of the 40 rounds, you are tucked behind the controls of the Ultraship and given several options. You can select a level, adjust volume, pick the gender of the voice that announces such things as "Watch your energy levels!", view high scores, and/or quit the game. The Ultraship's environs consist of a control panel that indicates weapon stores, energy levels, number of lives, and condition of shields, and a radar screen showing the location of Mega Mines, alien ships, and Earth.

Once launched in the great beyond, you must seek out and destroy the Mega Mines, and if you have the time, kick booty on the marauding baddies. As you get bashed about, your ship's energy level decreases, which can only be restored by a trip to a nearby Energy Generator. These generators are large red portals scattered about the solar system. To receive a power boost, simply fly through the portal (or better yet, do a little do-si-do maneuver that backs you in and out of the ring until your ship is fully charged). In addition to the Energy Generators, you will find light blue portals called Shield Depots that provide temporary shielding when they are flown through, and Power Up Stations—multicolored spheres that, when fired upon, cough up the zippy Warp Drive, decoy mines, and weapons such as the Cosmic Energy Weapon and Energy Seeking Missile. Each round is completed when you have destroyed all of the Mega Mines.

THE MOUSE IS A LOUSE

The Ultraship can be controlled in a number of ways: via the mouse, keyboard commands, the Gravis MouseStick II, or the Gravis GamePad. The manual suggests that the proper way to pilot the ship is to use the mouse as a duel-function controller. Before I take exception to this suggestion and offer tips to our more dexterous readers, let me explain how this is supposed to work.

When the mouse-controlled cursor is on-screen without the mouse button depressed, the Ultraship travels in whichever direction the mouse points. When the mouse button is pressed and held, the ship continues to fly on a locked course

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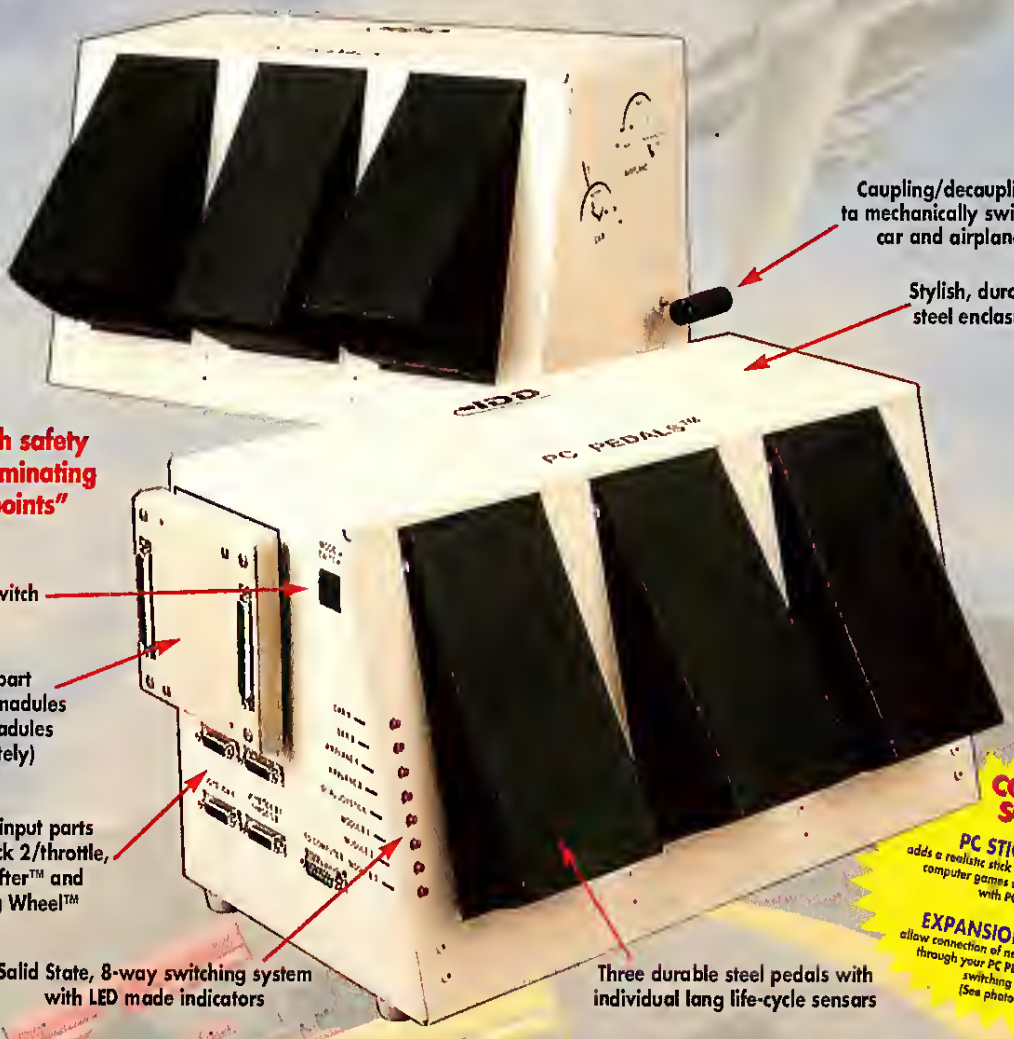

Press the clutch and shift inta first gear. The engine starts to whine as yau press the accelerator pedal. The light turns green. Drop the clutch and the tires begin to squeal. Yau timed it just right as yau shift into secand gear. Yaur in first place right off the starting line!

"...Maverick yau've gat a baggy at 2 a'clack! Quick, yau dan't have time ta maneuver to him, just paint yaur nase and fire!" Yau push yaur right pedal hard to slew the business end af yaur FA/18 at the enemy just in time, "FOX 1 OFF!" The missile was right an target, "Splash 1!" These are just a few af the exciting times yau can enjay with the new PC Pedals. Only from InterACTIVE Digital Devices!

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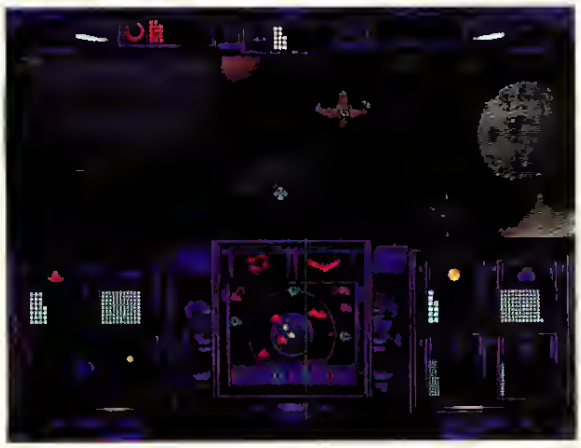

ARTSY ARCADE ACTION Battle hordes of bit-mapped alien invaders, rendered in extravagant full-color art deco stylings.

and never stops moving. The currently selected weapon then fires in steady bursts in the direction indicated by the cursor until the mouse button is lifted and navigation control resumes. If for example, you are zipping about the solar system and find yourself surrounded by enemy ships and one or two cosmic dirt clods, you'd spray one and all with deadly fire by pressing and holding the mouse while moving the cursor in a circle around the ship.

In theory this system sounds workable, but I found it rather clumsy. The mouse just isn't a precision device, and all too often what I thought was a minor navigational adjustment sent me several parsecs out of my way. Instead, I opted to investigate keyboard control.

The manual suggests that when flying and fighting by keyboard you use the numeric keypad or the letter keys located around the T, C, and B sector to navigate and fire. Your left hand uses the Control and Shift keys to switch between forward and reverse and to select different weapons. To fly in a particular direction, hold down the appropriate key; for instance, 7 or T turns the ship 90 degrees to the left. Press the Space Bar to toggle into gunner mode and press a key to fire; 7 and T now shoot forward and to the left at 45 degrees. As you can see, the directions for navigation and weapons control are not matched, and this adds an unnecessary level of difficulty. Using this setup requires that you reposition your hand every time you move from navigation to weapons mode. Not particularly strenuous, I admit, but in the later levels it could mean the difference between life and death.

To really rip through ASTRO CHASE 3D you need to use only the four cursor keys for navigation and the left-hand controls to fire the weapons, flip from forward to reverse, blast into Warp Drive, and toggle between the standard Solar Plasma Beam and Cosmic Energy Weapon. True, this does change the strategy a bit and means that you can fire only in the forward direction, but you can win this game without *ever* shooting from the sides or behind, deploying one of the exotic weapons, or stopping at a Shield Depot.

NINTENDONITIS FLARE-UP

After becoming accustomed to the game mechanics, I found Astro Chase to be pretty easy to play. And I wasn't the only one—a 12-year old equipped with a Nintendo controller wiped me out in under 15 seconds. Even so, I progressed to Level 34 before even considering the use of the much more powerful Cosmic Energy Weapon or a Shield Depot. With just six levels remaining, it dawned on me that piloting the Ultraship in this way makes the game a little too easy.

That's not to say that the last ten levels are a stroll in the park, as the cramp in my firing finger will attest. At Level 30, for example, the Mega Mines sport a satellite known as a Mega Mine Guardian, which orbits rapidly around the mine. One touch from this guardian and you're shrapnel. But it was relatively easy to stay out of range of the Guardian, moving to and fro—remember, the Ultraship never stops moving in one direction or another—and knock out the mine.

Once you settle on a comfortable playing style, ASTRO CHASE 3D is a fast-paced, engaging, and not overly taxing diversion. The game features great graphics and fluid motion but ultimately suffers by making things too easy for seasoned arcade players capable of independent hand-and-finger motion. A skill-level option would ameliorate this problem, but until the day it's added, I'll look to Nintendo brats for new action challenges.

ASTRO CHASE 3D

★★ 1/2

PROS Nice graphics, fast arcade action

CONS Squirrely mouse and keyboard control, very repetitive, too easy, lack of difficulty settings

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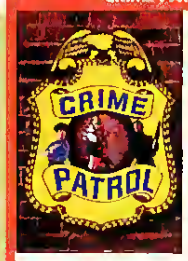
Microprose DOS **$49**

CRIME PATROL



This multi-level shoot-em-up thriller challenges the player to progress through police ranks, battling a variety of criminal elements. As a rookie the player takes on gang members, armed robbers, and other street criminals. Promotion to detective will mean working undercover against drug dealers and car thieves. Be prepared to confront bank robbers and terrorists once you're selected for SWAT team assignment. Only the better player will be able to reach Delta Force and tangle with a criminal element threatening national security.

American Laser Games IBM CD **$ CALL**

SPECTRE VR

In this sequel to the best-selling smash hit, you can soar above it all with hovering capability. And you have a whole new pantheon of enemies to deal with: like slicers and small acid pools. Fortunately, you have smart weapons like pulse bursts, spinners, smart missiles, proximity mines, cyberblasts and scattershot. Escape through transporter gates! Submerge into negative cyberspace! And finally, by using the optional virtual reality editor, you can even design the Virtual Worlds to play in later and share with your friends.

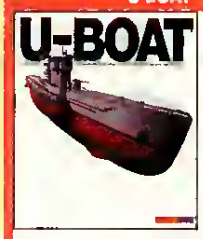
Velocity IBM CD, MAC CD **$42**

GRAVIS ULTRASOUND MAX

The future of sound and music. UltraSound Max incorporates 32 voices of true Wavetable Synthesis, a process used by today's top studio synthesizers. Sounds are created using digital recordings or samples, of actual musical instruments or sources (i.e., grand piano, bird chirping, violins, etc.). FEATURES: 16-Bit, 48 kHz stereo playback and recording. Expandable 192 General MIDI Instrument Set.

Advanced Gravis IBM **$199**

U-BOAT



If you've always dreamed of spending months at sea in the claustrophobic confines of a WWII submarine, this is for you. Bring along a good book to while away the off watch hours. Also bring the nerve to withstand incessant barrages of depth charges rattling your teeth at 200 meters. Bring the intelligence not to venture a surface shot on a capitol ship in broad daylight. Bring the skill to navigate treacherous waters.

Deadly Games MAC **$34**

MICROLEAGUE TIMEOUT SPORTS

Four fun, fast baseball games hosted by two zany characters, Bernie and his dog, Jock, are here to brighten your life with their irrepressible antics. They're on 24-hour duty to prevent your screen from burn-in and your mind from burn-out. Random, hourly, or pre-set attention grabbers featuring Bernie and Jock pop up on screen to remind you to take a break—with any of the four fast and fun filled baseball game included: Batting Practice, Fungo Fielding, Sign Calling 101, or Umpire arguing.

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EMPIRE SOCCER

All the excitement and fast paced action of the World Cup competition. Take total control of all the teams vying for the World's most coveted sports honor. Each of the 24 national teams has been meticulously studied and rendered so that they mirror the strengths and playing styles of the actual squads. On the field, perform all the moves that these elite athletes the best soccer players in the world.

Empire Software DOS **$29**

POLICE QUEST IV

The highly anticipated fourth chapter in the best-seller Police Quest series is here! The nation's most experienced cop brings you the most realistic police simulation ever! Features all new ultra-realistic digital photography taken throughout California, video-captured actors, and digitized crime scenes. State-of-the-art sound effects and music, including rock, rap, and hip-hop. You can't get any closer to the crime scene without a badge. Windows compatible for fast, point-and-click gameplay.

Sierra IBM CD **$45**

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Sigma Designs IBM — **$299**

ORIGAMO

Enjoy this enticing visual puzzle game. Explore the graphically rich maze with unique puzzles in every room. Forge through the maze by successfully completing each puzzle. As the conveyer belt moves along, with a myriad of block and shapes, you must place the block on the puzzle or your blocks will stack up and time will run out! Continuing through the maze you will discover beautiful and sensational graphics and animation throughout this exciting multi-leveled puzzle.

GOG DOS — **$30**

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User programmable throttle and weapons functions. Compatible with 5-pin keyboard connectors. Program your joystick for any current or future game. Your gaming peripherals (joystick and WCS) will be instantly compatible with current or future games. Features: LED lighting system indicates when certain functions are activated. Screw-down connector. Handle moves fore and aft for throttle control. Sturdy seven-foot cables. Allows joystick programmability through joystick interface. Digital/Analog mode toggle switch. User-programmable functions. One-year warranty.

Thrustmaster IBM — **$92**

MORPHMAN CD

You are the super hero Morphman and it's your job to rescue the kidnapped Professor, destroy scientific experiments, and blow up a research fortress. The world is depending on you and your Morph technology to accomplish this task before the experiments reach civilization. Your only weapons are your wit and the molecular sampler on your sleeve that allows you to alter your own molecular structure and that of objects around you. Features realistic 3D animation with Microsoft Video for Windows. Realistic 3D explosions, disintegrations, glowing and other special effects seen only in movies.

Dynamic Dimensions DOS-CD — **$28**

THE 11TH HOUR

The Eleventh Hour is the eagerly awaited sequel to one of the best selling CD-ROM entertainment products ever. In the seventy desolate years since the horrifying murders chronicled in The Seventh Guest, the rotting mansion of evil you maker Henry Stauf has been ominously silent. Only when reporter Robin Morales vanished while investigating the house do events resurrect the malignant past. As Morales' colleague and lover, you explore the ravaged estate and strangely quiet town to look for her.

Virgin Games IBM CD MAC CD — **$51**

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Thod sappearance of your father has left Lanthor without a leader. Factional infighting in the resulting power vacuum has left the realm in chaos! Save your once-rich land by re-establishing the supremacy of the guilds. Choose your disciples and strategies. Build vast armies to conquer or defend. Heed the counsel of the lords, or assassinate them—everything is under your control! Control and develop up to 8 disciples. Large array of powerful weapons. Huge selection of magic spells.

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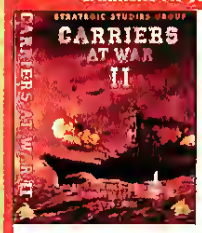

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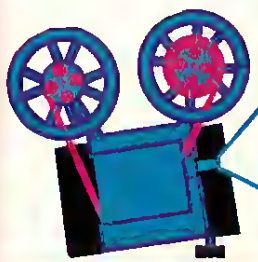

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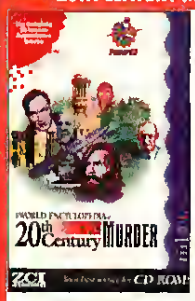

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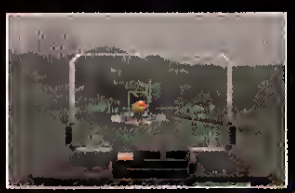

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Turnin' and Burnin' On-Line

TIRED OF FLAMING COMPUTER PILOTS BY THE DROVES? CHECK OUT THE MULTIPLAYER FURBALLS THAT ARE HEATING UP THE NETWORKS.

by Tom "KC" Basham

WELCOME TO BOGEY'S BAR & GRILL, AN INFORMAL SALOON for fighter pilots and sim drivers of all stripes to gather the latest intelligence between missions. Although we'll focus on military and civilian flight simulations, we'll occasionally look at naval warfare simulators, submarine simulators, and driving simulators. We'll discuss FLIGHT SIMULATOR 5 navigation techniques; talk about evading Russian torpedos in SEAWOLF; see how the real AWG-9 radar works versus concessions made in F-14 FLEET DEFENDER; and talk about handling the killer turns in INDYCAR RACING. Essentially, if it's a vehicle the player controls in the first person and it attempts to model the real world to some extent, it's fair game. This month, the game is combat simulation and it's on-line.

ON THE RADAR

Spectrum HoloByte plans to release an as yet untitled flight sim by Christmas of '94. Expected to be of moderate difficulty, it will feature a multimedia approach to training, offer a storyline between missions like that in STRIKE COMMANDER (but with more emphasis on character interaction), and involve the MicroProse design team in handling the avionics. It may even have a MicroProse aircraft within the Spectrum game. Spectrum is also working on a flight sim with a high level of complexity. FALCON 4 (working title) will ship sometime in early '95. It will use the same basic AI as FALCON 3.0 for air-to-air encounters, but the air-to-ground encounters will be significantly upgraded. Ground units will follow the standard military doctrine of an integrated defense. Missions will also be more realistic in structure and, as a flight leader, you will be able to follow up on TOOs (targets of opportunity), even if you need to call in a tanker to refuel. Both sims will feature a new Electronic Battlefield component which will support modem and network play.

REACH OUT AND ATTACK SOMEONE

Demand for multiplayer flight sims continues to grow, despite less-than-enthusiastic support from most game publishers. Fortunately, three on-line services, CompuServe, GEnie and The Imagination Network, offer a variety of flight simulation services with varying features, reliability, and prices.

RED BARON (THE IMAGINATION NETWORK)

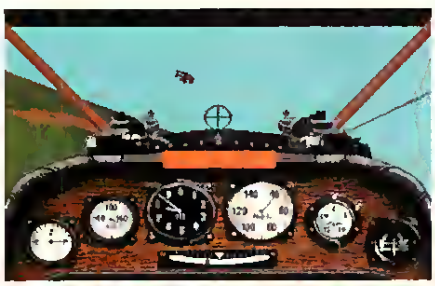
tNN supports **Dynamix'** RED BARON WWI flight sim in multiplayer mode. Although an older sim, RED BARON continues to hold its own in terms of realism and game play.

Once you've logged into INN, moved to the appropriate "land" (an INN term for an individual forum), and selected a "place" (a particular section in a land), you can jump into a queue. In the queue, you can issue challenges for 1 on 1, 2 on 1, or 2 on 2 matches. The challenging player sets several options, including aircraft type. If the challenged player(s) accepts, INN places the players on a waiting list. While waiting, you can chat with other players in that "place."

Once in the electronic air, RED BARON players will find that the on-line version is quite different than they are used to. Most of these differences are negative ones, although the current INN version (ver 2.3) is somewhat better than its predecessors. The first problem is that bullets have unlimited range. Forget trying to disengage from a fight and run—the bad guy's bullets can find you from several miles away. Second, there are no midair collisions. Third, MPRB suffers

joystick ailments, with many people having problems with two-joystick combinations. The worst of it, though, are *warping* and *delays*.

Warping is the sudden erratic movement of an object caused by timing delays between two machines connected through a network. *Delay* describes events happening on one machine several seconds after they happen on the other machine. At 2400 baud, INN's primary connect rate, warping isn't too bad, but the delay effects can completely ruin the experience. INN runs RED BARON individually on each player's computer, handling network updates every few seconds. For example, say you slide behind your opponent's six preparing to fire, when you realize you're about to overshoot. Unbeknownst to you, the network updates both player's games at this instant. Next, you cut throttle to slow down and prevent an overshoot while your adversary also cuts throttle to slow down and force you to fly past him. Since the last update just occurred, though, your machine doesn't know the other player reduced throttle, and calculates his next position based upon his previous velocity. It then paints his aircraft flying out in front of you on your screen.



TRIPLANES ON HIGH Tailing an enemy should be easy in on-line RED BARON due to the slower frame rate, but this isn't always the case.

Meanwhile, your opponent's PC doesn't know that you slowed down, so it shows your aircraft flying out in front as your adversary decelerates. Your opponent pulls the trigger and scores a hit, prompting a network update. Suddenly, even though the bad guy is in front of you and pointing away, his bullets hit you. Flying textbook tactics against the opponent in front of you will result in your electronic death 90% of the time. INN now supports 9600 baud, which should alleviate some of these problems. 9600 baud nodes are rare, though, and are often long distance calls.

INN's pricing scheme is $9.95 per month for five hours, plus $3.50/hour for each additional hour. Although these rates are competitive with GEnie, the quality of INN MPRB is not. For more information call 1-800-SierraI.

SVGA AIR WARRIOR (GENIE)

GEnie supports **Kesmai's** SVGA AIR WARRIOR (AW). GEnie takes a different approach from INN. Genie supports large arenas; some designated as training areas, some as limited-realism areas, and some as full-realism areas. Supporting AW's WWII theme, the various arenas are defined as either "Pacific" or "European" for several days at a time, and you can only fly aircraft that saw service in that theater.

Once in a theater, you choose one of three countries to fly for. You can join a squadron of other players from your country, but it is not required. Each country has a territory containing several airfields, factories, bridges, etc. On-line play is a constant war among the three nations to destroy or capture each other's bases. You begin by choosing an airfield and moving to "the briefing room." In the briefing room you can chat with other players there or in flight. You can choose from a number of different aircraft, including bombers. You can even play a gunner on a bomber flown by someone else, drive a tank, or fly as an observer with someone else.

Once in the air, you'll most likely find yourself in the middle of the largest electronic furball you have ever seen. There may be 15 or 20 people flying for each country, *all at the same time!* The radio allows communication between players, and through channel selection you can communicate with all players, only with your countrymen, only with your squadron, or only with your wingmen. Jargon-filled messages moves through your text window calling out bandits, cries for help, all's clear, and kill counts.

FLY THE UNFRIENDLY SKIES While shooting down enemies in Air Warrior, you may taunt them at your discretion.

On-line AW is a complex, highly supported system. New players can invest in training, fly at limited realism, or go for the max realism impact. Primarily played at only 2400 baud, GEnie suffers no delay, but it does have some warping effects. The warping can make shooting tricky, but not impossible. AW has a much steeper learning curve than RED BARON, but pays off with significantly more complex play.

GEnie has three main disadvantages. First, the on-line AW environment is complex, and it takes time to learn the ropes and jargon. Second, not everything is friendly in the electronic skies. While the vast majority of players are very friendly and helpful, there is a vocal minority who feel pride in verbally assaulting everyone they encounter, especially new players. Most of them claim their verbal nonsense is some form of combat tactic. Fortunately, this noise can be squelched. Third, GEnie is expensive. Similar to INN, GEnie charges $8.95 per month for 4 hours, plus $3.00/hour for each additional hour. Playing during prime business hours warrants a double-price surcharge. Although the complex environment makes on-line AW very entertaining, the steep learning curve and high cost render it impractical for casual users.

For more information, call 1-800-638-9636.

FALCON CHALLENGE LADDER (COMPUSERVE)

GompuServe does not support multiplayer flight sims in the same sense as GEnie. More akin to INN, GIS provides a 2400 baud connection service for FALCON 3.0 players for $3 per hour, alleviating long distance surcharges for players in remote areas. Unfortunately, FALCON 3.0 is nearly unplayable at 2400 baud due to warping effects. GompuServe also supports a "waiting room" where you can find willing FALCON 3.0 players around the clock. Finally, GompuServe also hosts a FALCON 3.0 head-to-head Ghallenge Ladder. The ladder is usually played by way of 9600 baud modem connection, with GIS being used only as a challenge and records-storage administrator. Competition is tough and the Challenge Ladder is no place for the squeamish.

CompuServe rates aren't cheap, however. Prices are either $8.00/hour or $12.80/hour for 2400 baud, depending on your billing option. For more information, call 1-800-848-8990.

In summary, GEnie's AIR WARRIOR offers the most comprehensive entertainment, but requires more training and commands a premium price. INN offers an entertaining, but flawed, rendition of RED BARON. CompuServe doesn't offer a comparable service, but is a host for challenging head-to-head FALCON 3.0 competition. So enlist where your interests lie, and never let "KG" Basham get on your six.

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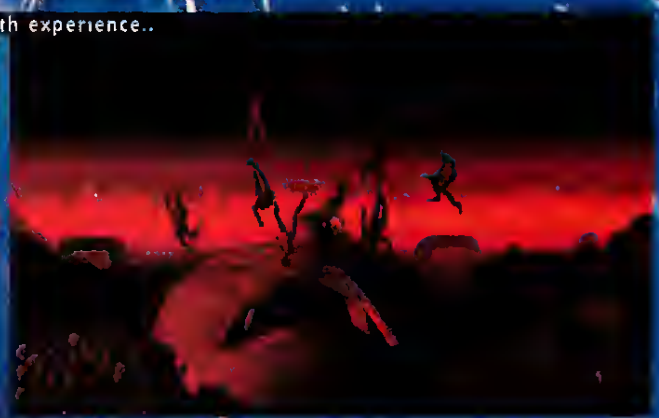

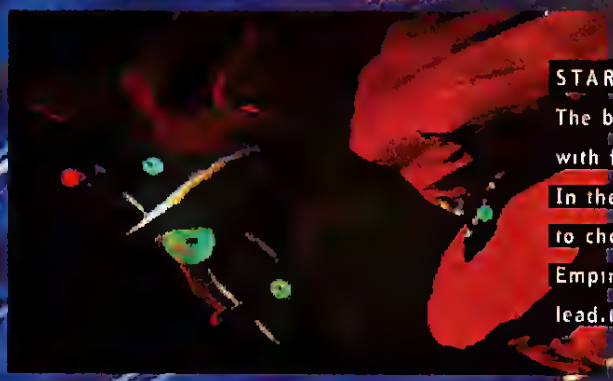

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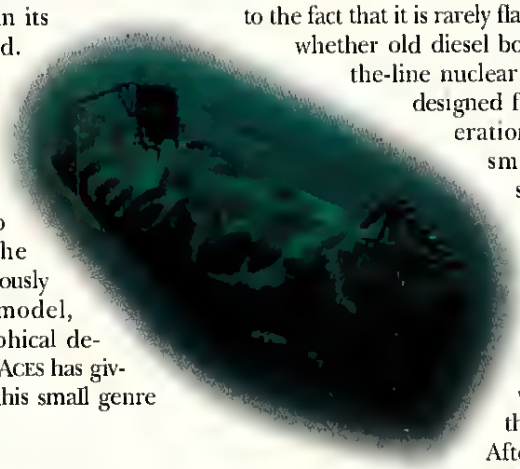
Predator

Stalk The Seas Of WWII With Dynamix' Aces Of The Deep

by Kevin Turner

IT WAS DURING A LONG MEDITERRANEAN PATROL ON THE USS SNOOK, AN SSN 592 FAST-ATTACK SUB, WITH A BOATload of sun-starved submariners, that I first saw the movie *Das Boot*. As you might expect, submariners are a somewhat irreverent and rowdy lot, the kind of people who can turn *Brian's Song* into the funniest movie ever made. *Das Boot* was the first movie we ever sat through in complete silence.

ACES OF THE DEEP (ACES) has a lot in common with *Das Boot*. Not only is it a chilling, historically accurate portrayal of German U-boat experiences in the Atlantic, but, like the movie, it is able to totally immerse you in its claustrophobic world. Even with my many years of experience with submarines, I learned new things about U-boats almost without realizing it, so absorbed was I in the game. With its meticulously crafted simulation model, and its stunning graphical depiction of that model, ACES has given me new hope for this small genre of games.



THE BELLY OF THE WHALE

As you enter the control room, you are presented with a true-to-life representation of U-boat instrumentation. Control of the sub is simply a matter of clicking on an instrument, be it periscope, depth gauge, or compass. When surfaced, moving to the periscope or the bridge may have you reaching for your Dramamine, as the ocean undulates with uncanny realism.

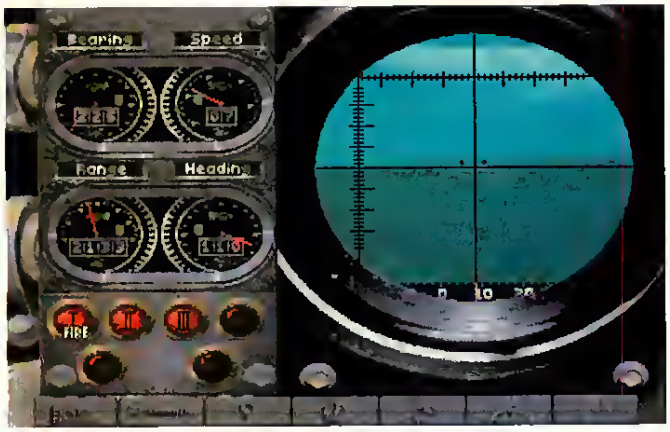
The periscope has crosshairs and gradients with an accurate bearing indicator, as one would expect. But the view from the periscope is something I never imagined I'd see on a PC — the scope barely peeks out over the surface of the ocean, and the sight occasionally blurs water splashing on the scope, slowly clearing from the top as it drains away!

The view from the bridge is enough to make a landlubber queasy. Having crossed the Atlantic five times, I can attest to the fact that it is rarely flat. Submarines, whether old diesel boats or top-of-the-line nuclear subs, are not designed for surface operations. Relatively small for warships, they bob up and down like corks on top of the waves, all of which is captured wonderfully by the bridge view. After turning off the lights, I found myself doing a slight sway and wishing for an Atlantic breeze to go with the rolling waves.

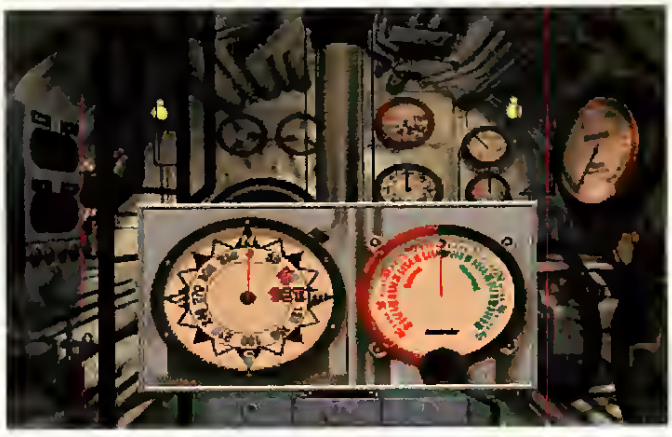
The bridge view, besides its beautiful ocean, contains a couple of noteworthy items. First is a set of "big-eyes," or large binoculars, with a bearing circle for surface attacks. Instead of looking out and seeing a ship, then running down to the conn for a periscope bearing, a handy interface allows you to stay on the bridge and maximize oxygen. You can also make surface attacks using torpedoes, as the same controls are available on the bridge as in the control room.

Running synchronously with the clock, the cycle of day and night adds another element of realism to the game. Time compression is a welcome option, allowing you to transit large areas quickly and avoid the boredom that is very much a part of submarine life.

Once a target is located, information must be gathered and a target solution generated by calculating your heading and speed, plus the target bearing and range. This information is then fed into the Torpedo Data Computer, which fortunately does all of the number crunching. Historically inaccurate? Yes, to a degree, but this is a design decision that saves the gamer a lot of tedious calculation. (I would personally enjoy doing all the work, more from nostalgia than concern over realism.) Once the data is calculated, you have the option of using torpedoes or the deck gun to destroy the target. The deck gun is fired not by you, but by your crew, which makes sense, as it steers the game away from arcade action. The designers of the game are still doing a lot of work in this area, but what I have seen so far suggests that they're on the right track.



UP SCOPE! Stalk your prey over the grey seas of the Atlantic with a periscope which accurately models its real-life counterpart.



PREPARE TO DIVE The interior is filled with detailed, realistic and stunning depictions of WWII submarine technology.

swell, as did the flow of events for the Germans in WWII. This game will prove to be an excellent learning tool, while still being very entertaining.

DIVING INTO DOS VS CD-SUBMARINES

Mike Jones informs me that after the August release of the DOS version, an enhanced CD version of the game will be available late this year, and this version may contain interviews with actual U-boat skippers. Also being planned for early 1995 is a mission disk that will allow the player access to the Mediterranean and another U-boat type. Should the design do particularly well, Dynamix is even considering publication of a scenario builder.

ACES OF THE DEEP is simply one of the most impressive pieces of software I've had the pleasure of playing. From the opening quote by Winston Churchill and the ghostly image of a submerged U-boat appearing out of nowhere, to the actual nuts and bolts of sub warfare, it is evident, even before the game is complete, that ACES OF THE DEEP will set the new standard for submarine simulations, perhaps even simulations in general. Otto Kretschmer and his fellow submarine aces would be proud.

Kevin "Sumo" Turner (ICI SS/DV) is a former submariner, former DSRV crewmember, and former Navy diver.

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Games Master is an intelligent control panel that will change the way people learn and play computer games by adding a new dimension in total control because it replaces the standard keyboard. The keyboard becomes obsolete! It is not just a template but a smart control panel consisting of the console and matts.

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Rim compartment as backsite for upgradeability feature. New inexpensive chip will be available about every six months for future popular games and applications
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Touch sensitive membrane underneath Matts
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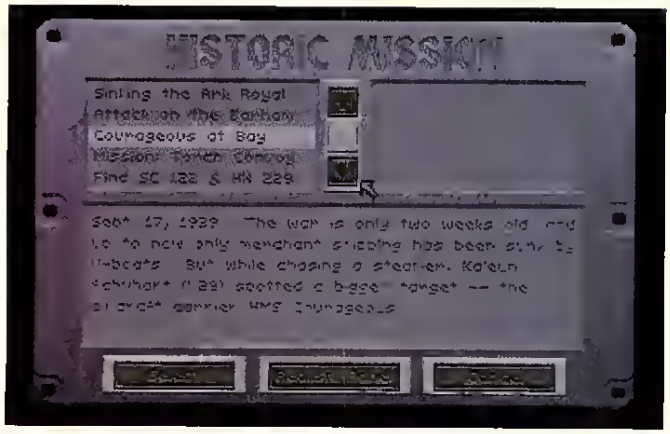


A SUB CAPTAIN'S DREAM Choose from a variety of scenarios as you move from submarine novice to legendary skipper.

TORPEDOES AWAY! The Torpedo Data Computer may not be the pinnacle of realism, but it makes targeting a lot easier.

A+ IN HISTORY

Although the graphics had me reeling in my chair, the single most impressive aspect of this simulation is the extent to which it captures historical accuracy. I spoke with Mike Jones, the producer of ACES, and was thoroughly impressed with his grasp of submarine technology and U-boat history. In addition, **Dynamix** employed researcher Dennis Kilgore to ensure accuracy, and he went as far as London to do so. Surviving U-boat crew members were interviewed, archives were stripped of their wealth, and all this information was used to some extent in the game. From rate of depth change to crush depth, from speed to torpedo damage, you'd be hard pressed to find an element that isn't modeled after historical data.

To ensure that the game plays as realistically as possible, Dynamix has made some interesting decisions with regard to crush depth and the damage factors. The crush depth (the depth at which a sub may collapse from pressure) is learned exactly once, and no one has ever returned to say what it is. Since the actual crush depth is unknown, Dynamix has left it unknown and somewhat random. Rather than having a crush depth, the sub has a crush range, and it varies slightly from game to game. This prevents the player from learning that the crush depth is 210 meters, and setting the depth for 209 meters.

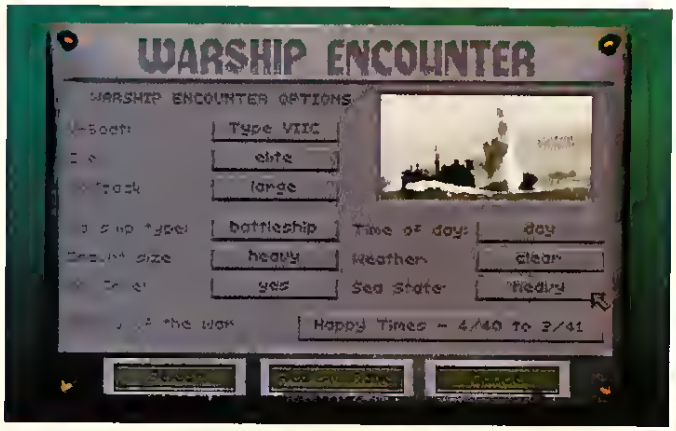
The damage factors are still being implemented, but the approach is refreshing. Damage is not strictly cumulative, meaning that if a depth charge is detonated at a given distance and inflicts 10% damage, 10 more depth charges at that distance may not destroy the boat. The damage inflicted by subsequent depth charges may be more, or may be less than the first, ensuring that captains play by gut feeling and experience, rather than "by the numbers."

MISSION SUBMERSIBLE

ACES can be played in a number of different modes. Degree of difficulty can be varied, allowing each player to adjust the learning curve to their experience level. As in other sims from Dynamix, single missions are available for training, stalking convoys, encountering warships, or historical missions. The latter are particularly fascinating, allowing you to participate in some of the extraordinary exploits of actual U-boat skippers. You may also embark on a career, where you select an emblem to represent your boat. I noticed right away that the emblem of the U-boat in **Das Boot** is present, along with many others almost as famous.

In taking on a career, you can choose to start at one of several stages in WWII. "Opening Moves" and "Happy Times" reflect pre-1941 naval combat, where Anti-Submarine Warfare was non-existent and convoys had not been developed. "Stalemate" takes place in 1941, where ASW was starting to become useful. The US coast is the scene for "Drumbeat," where the US is caught unprepared for the U-boat threat in 1942. Later that same year, "Crescendo" shows how the convoy system and ASW had begun to evolve. The large convoy battles over the Atlantic come into play during "Climax," in the first half of 1943. "Defeat" continues the game on to the end of the war. The difficulty levels of these scenarios rise and fall like a sea

A WATERY GRAVE If you're lucky enough to nail the enemy, don't hang around for search planes and destroyers to find you.



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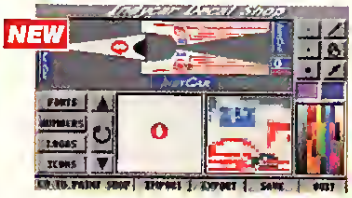

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Aegis: Guardian Of The Fleet

Keeper of the Simulation Flame

by Terry Lee Coleman

San Diego is in many ways the archetypal California city, its sunshine and lush vegetation blend perfectly with breezes from the nearby ocean which, in turn, wrap themselves around the eclectic architecture to be seen in every visual quadrant. Yet, this deceptively laid-back metropolis is also a staunch military town. The serene waters of San Diego Harbor are home to a flotilla of military vessels, from WWII aircraft carriers to modern destroyers and support craft. Amidst this grouping of past and present warships rests the pinnacle of naval hardware—the Aegis cruiser. Costing between 800 million and one billion dollars apiece, this technological marvel is as close to the ultimate weapons platform as we are likely to see in this century.

AEGIS: GUARDIAN OF THE FLEET

Price: $69.95
System: IBM
Requirements: 3B6/25 MhZ processor, 4MB RAM, CD-ROM drive, 20 MB hard drive space, VGA/SVGA graphics, mouse; Sound Blaster compatible for digitized sound
Designers: Software Sorcery
Publisher: Time Warner Interactive Group
Burbank, CA 91506
619-452-9901

In one San Diego locale, walking in a normal office building and strolling down a long, narrow hallway will take you to **Software Sorcery**'s Military Software wing—should you have the proper security clearance code. Software Sorcery has developed several training simulators for the armed forces, so they definitely understand the concepts behind military simulations. Still, the variety of weapon platforms and information gathering systems on the Aegis are so varied as to be exceedingly daunting to even the most avowed simulations buff. How can they possibly be accurately simulated with any hope of being played by the *average* gamer? The truth is, it wasn't easy, but I think they've got it.

Aegis is advertised as having a full-size 94-page guide. Unfortunately, if this were my guide in a desert, I would certainly die of thirst. The tutorial section spends more time defining what a laser *is* than in telling the user how to use one. Aside from the obvious fact that most simulation buyers know the difference between a Harpoon and a Tomahawk, the less informed need specifics, not general ramblings on what various systems represent. As happens all too much in this industry, the manual appears to have been written by someone who has never played the game.

In Aegis' defense, the game does include a very good Electronic Book of on-line information, along with an on-line Warbook, filled with comprehensive data on ships and hardware from navies and air forces around the world. As good as this is...the frustrating part is that the game tends to crash about 1/3 of the time after accessing the electronic book!

Other bugs mean the 5-inch gun doesn't always respond, and the MIDI music has some problems with Gravis Ultra-Sound. The latter is a shame, because the music is quite enjoyable, having just enough of that pompous flair so necessary for martial compositions. These errors seem to be confined to a few systems (ironically, I had fewer problems on a single-speed CD-ROM than on a double-speed)—nonetheless, for having only a few errors, the game certainly has some obvious and irritating detractions.

Despite this, once the learning curve is crested, it becomes readily apparent that Aegis (to paraphrase Marlon Brando in "On The Waterfront") could have been a contender. The icon-based interface is actually quite logical, and moving around to the various ship systems quickly becomes second nature—especially when enemy missiles are coming at your ship. From the bridge, for instance, moving to the threat screen allows you to use radar, passive or active sonar, or other sensing devices to locate enemies, which are indicated in

AEGIS ARTWORK From the opening screens to the digital video missile launches, the graphics are crisp enough to pass a Navy inspection.

standard NATO symbology. Fans of RED STORM RISING will feel right at home.

UP CLOSE AND PERSONAL

The weapons screen showcases the almost overwhelming amount of weaponry carried by the AEGIS. Over 120 bays hold Tomahawk (surface-to-surface), Sea Lance (anti-sub), and surface-to-air missiles, with the famous Harpoons forward in separate launchers. Marvelously detailed, the game requires that General Quarters be sounded before weapons can be fired, and you will be apprized as to weapons status through digitized voice. Similarly, digitized videos of launched weapons are available, although I was disappointed that I couldn't see video of the Phalanx Close-In Defense System with its reputation for firing 3,000 rounds per minute.

Firing weapons is simply a matter of clicking on an acquired target, then arming an appropriate weapon. Once lock-on is achieved, fire-and-forget is the order of the day, with both lock-on and weapon accuracy depending on range and difficulty level. The weapon ranges have an authentic ring, given their declassified source. The US Navy fully cooperated in the design, and it shows. Harpoons are less versatile than Tomahawks, but they are realistically tougher to shoot down, as the more vulnerable "pop-up" of the Tomahawk is factored into the design.

The heart of the game, however, is the Tactical display. Graphically, it shows the Aegis afloat, with the blue-sea background certainly more pleasing than the radar screen, among others. Enemy ships, planes and other threats are shown in detail, and the view may be zoomed in and out as needed. An Exocet missile *looks* as it should, tremendously important visual feedback for the average gamer. In beginner mode, clicking on the missile or other enemy object gives information about warhead size, range, speed, and so forth. On higher levels of complexity/realism, information is doled out only as quickly as sensing devices can pick it up. Simulation purists will be pleased at the accuracy of the graphics, but may find the look to be too slick for their tastes. (They can of course stick to the weapons screen). Regardless of which screen the game is played from, the tension is exquisite. Time compression is available, but it will rarely be needed. In most scenarios, threats appear quickly enough that you'll beat your mouse (and hot keys) to death responding to them all.

A SIM FOR ALL SEASONS

Frankly, this game reminds me of RED STORM RISING in that it does for surface ships what the former did for submarines. Sometimes, the Aegis struggles alone against a horde of air units, hell-bent on its destruction. At other times, it must stalk deadly and stealthy subs, or launch a surprise Tomahawk strike on land targets. While the Aegis is an excellent anti-sub and anti-surface vessel, its main duty is to protect aircraft carrier groups. Often, you must deal with a sub or surface attack at the same time you are conducting air defense for the carriers. Unlike a lonely sub commander, your position as captain of an Aegis will require you to use a significant number of different assets at your disposal, according to your assigned tour of duty. You may coordinate interceptor aircraft, AWACS surveillance, or anti-sub helicopters.

I CAN SEE FOR MILES Numerous screens offer a variety of information and views of the enemy, using the AEGIS' state-of-the art surveillance system.

RUN SILENT, RUN DEEP...SOMETIMES A Russian Victor III submarine is foiled in its attempt to sneak up on the AEGIS undetected.

One major plus for those who like realism (a minus for control freaks) is that your control of these forces is limited to issuing orders; you cannot take control of them directly. This is very appropriate, since this game is a simulation, and *not* trying to be a wargame like HARPOON.

To ease the novice captain's anxiety, *eighteen* training missions are included, all of which have something to recommend them. After chasing enemy subs and fending off aircraft, it can be a bit of a shock to fight a defecting Aegis crusier in the final training scenario. Needless to say, this is a more than adequate preparation for the "real game."

Over 100 missions are included, and in classic simulator style, you may fight single battles or carry out a campaign. If you choose the ever-popular Desert Storm, you will fight your way through all of the battles in strict chronological and historical order, albeit without CNN along. Just for fun, some hypothetical scenarios are included. My favorite was the Black Sea variant, where I got to tangle with the revamped Russkies. One of the nicest things about this system is that it doesn't have the forces involved casually tossing nukes around (as in RED SKY AT MORNING). The forces don't seem to vary much the second time around in a particular battle, but playing on higher levels causes them to react differently, so replay value is better than anticipated. With the vast number of scenarios available, there is plenty to keep even the most die-hard naval fan enraptured for months, at the very least.

Aside from its similarities to RED STORM RISING, it also reminds me of another sim—FALCON 3.0. Even with the bugs (which are already being corrected as we go to press), this is one of those games which will cause people to upgrade their hardware in order to play it. AEGIS is one of the few games for which it is actually worth purchasing a CD-ROM drive. Anchors aweigh!

AEGIS

★★★ 1/2

PRO: Lots of detail, accurate naval hardware depictions, excellent command perspective

CON: Poor instruction manual, disturbing crash bugs

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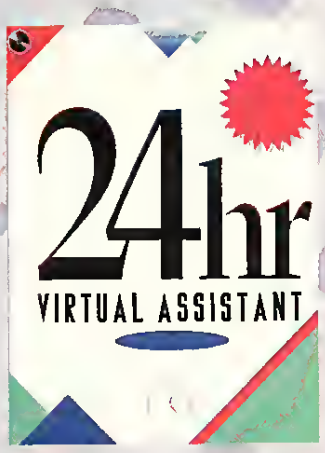

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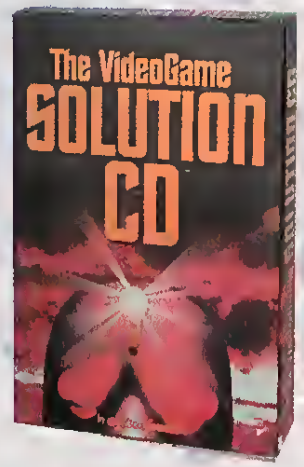

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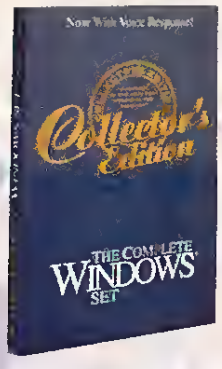

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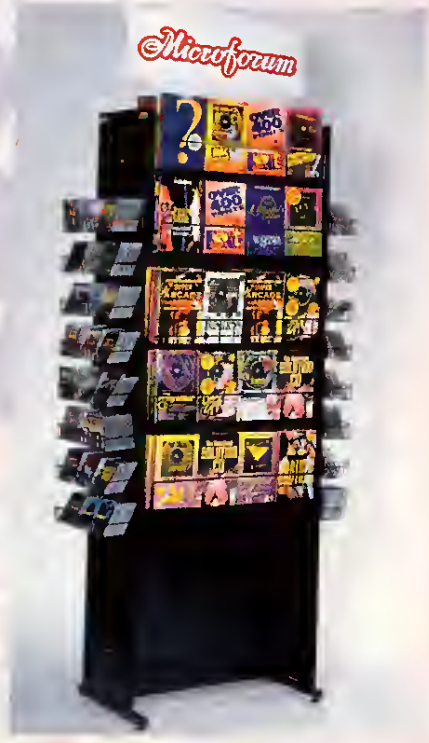

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F-14 FLEET DEFENDER TACTICS PART II

by Tom "KC" Basham

THE AWG-9 RADAR USED IN THE F-14 IS EXTREMELY COMPLEX. ALTHOUGH NOT AN EXACT REPLICA, MICROPROSE' F-14 FLEET DEFENDER'S simulation of the AWG-9 approximates the real system well enough to appreciate the tasks which real-world Radar Intercept Officers (RIOs) face. In some respects, radar operation in DEFENDER is actually more difficult than in real life, because you must perform both pilot and RIO tasks. To make matters even more difficult, in order to exploit the advantages of the AWG-9 radar in the simulation, you *must* use the complex, "authentic" difficulty settings. At lower difficulty settings the computer-controlled RIO will take command of the radar. The computer-controlled RIO is good at finding targets at long range, but very poor at locking and attacking them, plus it *restricts* you from utilizing the most powerful radar modes.

FINDING BANDITS

Generally, everything begins with the Detailed Data Display (DDD). You start by selecting SRCH mode, which uses a long-range, pulse-Doppler search mode. Although it limits the information presented about each target, SRCH mode allows you to look for targets at maximum radar range. Next, configure the scan pattern using three parameters: azimuth scan, elevation scan, and scan bars. The wider the vertical and horizontal scans, the more area the radar searches. Since this makes the entire search pattern extremely slow, you should generally avoid such very large scan patterns. I usually begin by selecting a 200 nautical miles (nm) range, maximum azimuth and 4-bar scan, keeping the elevation centered on the horizon. This enables me to cover a lot of territory in a reasonable amount of time. I leave the scan pattern alone until it has a chance to complete two scan patterns, then begin to adjust the vertical elevation slightly. Each press of the PGUP and PGDN keys adjusts the elevation by 2 degrees. Adjust the elevation in small increments only; pointing the radar up 2 degrees means raising or lowering the scan zone by over 42,000 feet at the maximum range of 200nm! Moving the antenna up or down, even slightly, could move the scan pattern enough to exclude important radar contacts.

AS FAR AS THE EYE CAN SEE Visual identification is a luxury. Initiate a long-range scan with SRCH mode if you want to survive the mission.

After detecting radar contacts, *resist the temptation to radar-lock a single target* in STT mode! This only signals your intentions to the enemy and focuses your view on a single target. Instead, keep using SRCH mode until the targets are visible on the DDD with a 100nm range. Then, select Track-While-Scanning (TWS) mode. Although limited to a 100nm range, the TWS modes (TWSA and TWSM) are the best radar modes for the AIM-54 Phoenix missile. In the TWS modes, you can monitor up to 24 targets simultaneously on the Target Information Display (TID) and launch Phoenix missiles at up to six enemies. The HL button highlights selected targets, giving you more detailed information. You can even interrogate a highlighted target's IFF (Identify Friend or Foe) signature. Since the radar never locks on any single target, your scans will not trigger any enemy radar detection alarms. You and your wingman can conceivably attack an entire squadron of enemy aircraft without ever setting off a single "radar lock" warning.

The TID in TWS mode gives a graphic, top-down display of the radar contacts, showing their relative positions, their altitudes, and their headings. Using this information, along with IFF checks and "bogey dope" from the E-2C Hawkeye, you can quickly determine which aircraft are hostile, which ones are

ZEPHYR

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Circle Reader Service #161

WHO GOES THERE? Unsure if that far-off aircraft is friend or foe? Highlight the target with the HL button, and query its IFF signature, without setting off radar warnings.

flying fixed patrols, and which ones pose a threat to you or your carrier.

BOLT FROM THE BLUE

Next, comes the true beauty of the AWG-9/AIM-54 combination: attacking six targets simultaneously at long range. In the TWSA mode, the computer will automatically allocate all Phoenix missiles; you just push the fire button once for each missile and watch the resulting explosions. In the TWSM mode, you have to manually designate the firing order of targets. Click first on the DT button, then on individual radar contacts. A number from 1 to 6 will appear next to each designated contact, indicating the firing order. Each time you press the missile launch button, a Phoenix missile will be fired at the next designated contact. You just sit back and watch the action.

As an alternative to the TWS modes, if you are within 100nm of a friendly AWACS aircraft or your aircraft carrier, you can deactivate your radar and use the *datalink* mode. Click on the DL button beneath the TID and it will display bogey information provided directly from the AWACS or carrier. Again, manually designate targets (as described for the TWSM mode) and fire your Phoenix missiles at the targets without ever having to turn your radar on!

Since the Phoenix is a fire-and-forget missile in DEFENDER, you can break radar lock at any time and head for home—a good idea once you've launched your last Phoenix. Although no slouch as a dogfighter, the F-14 should avoid knife-fights whenever possible.

THE LAST RESORT

Bandits aren't always so cooperative in letting you bug out, however. Sometimes, it's best to simply close the range and duke it out. If you have AIM-7 Sparrow missiles,

MY, IT'S GETTING LATE Don't waste time when you've identified a hostile. Designate the missile firing order and let 'em fly!

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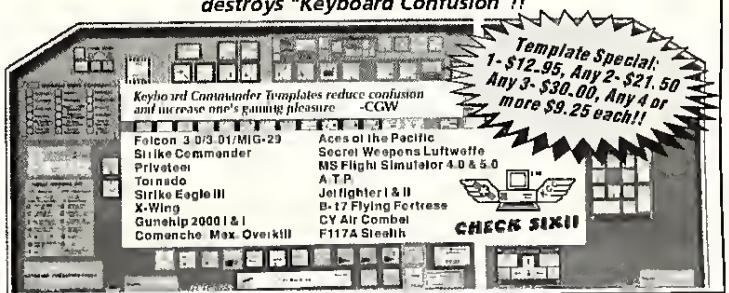

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Circle Reader Service #172

LIVING THE GOOD LIFE IN THE SKIES If you're lucky enough to get the jump on your opponent, just sit back and watch the targets disappear when the missiles hit home.

move to the front seat and point the aircraft at the enemy. Jump to the back seat and select SRCH mode. Then, click on the desired target in the DDD display so you can lock the radar to that specific target and fire your AIM-7 Sparrow missiles at it. Fire your missile and hustle back to the front seat. These are not fire and forget, however, so remember: *you must keep the radar locked until the missile strikes or the missile will miss the target.* Your intended victim will no doubt try to break the lock by maneuvering, so you must be prepared to counter maneuver and maintain the lock.

Once you are within 5nm of the bandit, the back seat position becomes totally useless. Although a real-world RIO would continue to work the radar, a single person cannot dogfight the plane and operate the radar at the same time, because the flight controls are disabled in the back seat. When in a knife-fight, select the *Boresight* radar mode to immediately and automatically lock the closest target directly in front of the aircraft. While *Boresight* doesn't give you much selection, it does significantly reduce your workload. In hindsight, MicroProse should have: allowed the back seater to control the aircraft from there; provided an autopilot that will dogfight while you are in the back seat; or created an auto-RIO that shuts off when you are in the back seat, but operates the radar as if you were playing at "standard" difficulty level when you're in the front seat.

DEBRIEFING

In summary, proper use of the RIO enables you to reduce other birds into ashes with your Phoenix missiles and to shoot down bogeys at shorter range while keeping your eye on your Sparrows. As the program stands now, though, once you start dancing in close, you're on your own.

Courtesy of Grumman Corp.

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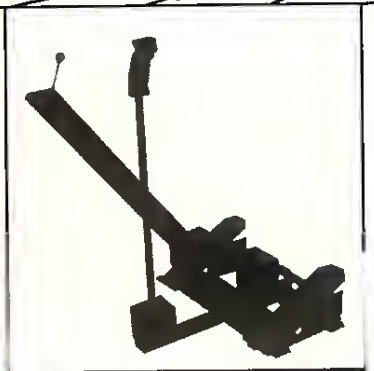

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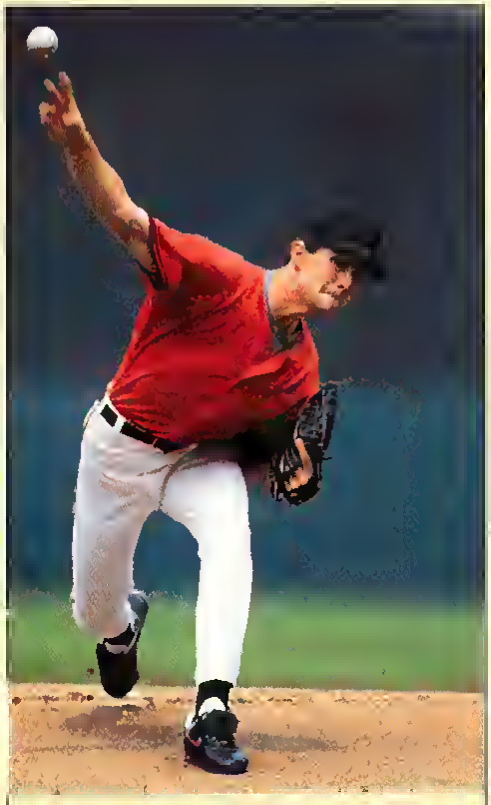

Now get all the drama and excitement of life in the big leagues with a new PC game from the makers of award-winning Football Pro.

BASEBALL SEASON STARTS TODAY!

COLORADO ADMITS TEAM MANAGED BY COMPUTER

With no manager in sight, the team was forced to admit that they've been managed for the last year by a very powerful computer program: *Front Page Sports Baseball.* The program's Manage-only mode is great for trying out your own strategy, playing head-to-head with other players or against the computer. Switch to Arcade play and take as much control as you want over pitching, batting, fielding and base running—at Basic, Standard or Advanced skill levels. During the season you can play all the games you want, switching from Manage-only to joystick jockey at will.

GREATEST LINEUP EVER — OVER 500 STATS FOR EACH PLAYER

It happens every Spring. But for you it can happen any time. Because nothing brings you closer to the game than *Front Page Sports Baseball.* Whether you want to just play the game, manage a team, or both, you get to make the calls. And with 500 statistics on each MLBPA player, there's plenty to base your decisions on.

Front Page Sports Baseball lets you field 48 teams in one to three leagues. What's more, you can have 50 players on each team—25 on the big league roster, 15 at the AAA level or on the disabled list, and 10 in the low minors. So you can work with players not just for a season, but for their entire careers—from the minors to retirement.

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Wind turns game into home run derby *See page 3*

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NEW YORK SWITCHES LEAGUES

High resolution graphics put you in the batter's box for realistic pitcher-batter duels. Games played in 3-D replicas of 12 top stadiums.

Surprise Move Stuns Fans, Mayor To Investigate

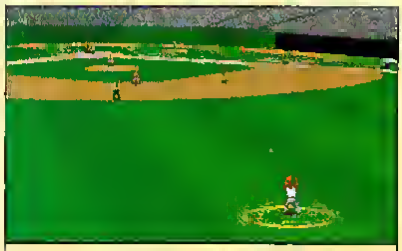
In a surprise move, New York switched leagues today. The change of allegiance was perceived by many as an obvious attempt to capitalize on the fan appeal of a direct rivalry with the city's other team. Fans already were speculating what it would be like watching a player like Bobby Bonilla face the other league's pitchers. According to sources, *Front Page Sports Baseball* made the team's move easy. League play can be configured for up to 48 teams in one to three leagues. Talk around the league centered on what it would be like to have Toronto and Atlanta in the same league and division. The move might be completed as early as next week.

OAKLAND CALLS UP TWO PLAYERS FROM MINORS

Looking for extra offense after eight losses in their last 10 games, Oakland has called up two .300 plus hitters from their AAA team. Key in the decision was the fact that *Front Page Sports Baseball* lets you have extra players on the injured list, in AAA, or in the low minors. You can also make player trades between the end of post season play and the August 31 trading deadline. Take over all the roster decisions for your team or delegate some or all of them to the computer.

HOME RUN KING IN SLUMP? CHECK LAST SEASON'S AVERAGE

Coaches and teammates alike were unanimous in their support of Barry Bonds, saying he's always been a streak hitter and will probably start connecting in his next couple of at-bats. The team's batting coach backed up his statement by saying that a player's performance in *Baseball* is determined by ratings based on actual statistics. Performance factors include situational ratings, including left-handed and right-handed batters and pitchers, home and away games, clutch situations, and monthly performance records



Rotoscoped animations give players life-like action at bat and in the field.

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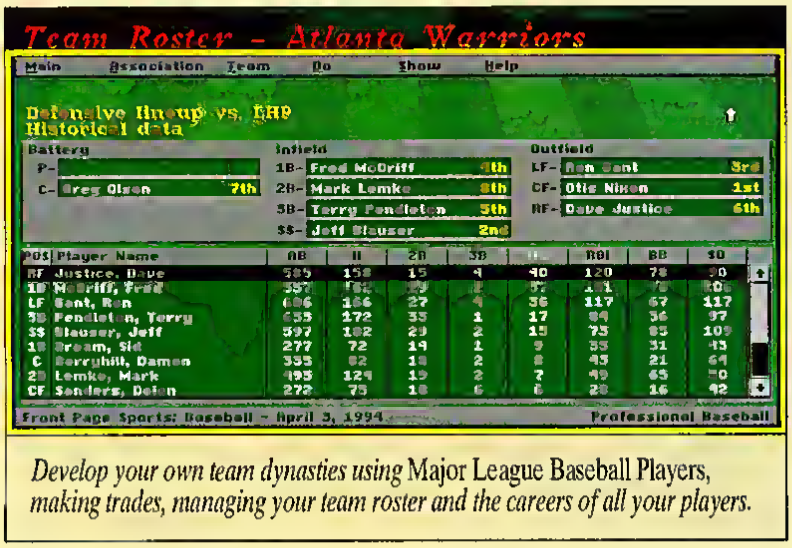


Develop your own team dynasties using Major League Baseball Players, *making trades, managing your team roster and the careers of all your players.*

DUAL SPORTS STAR LOOKS AHEAD TO FOOTBALL SEASON

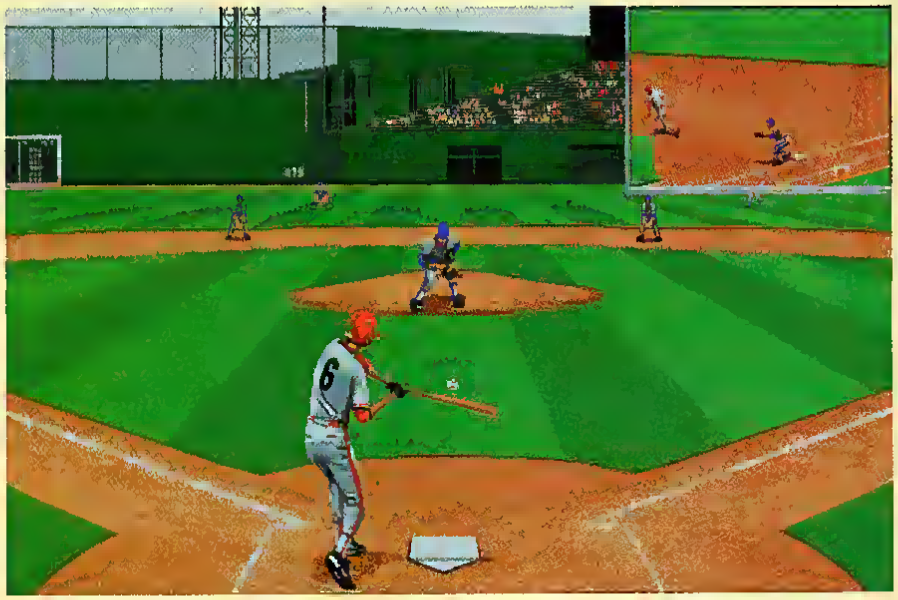
As exciting as *Front Page Sports Baseball* is, it's no wonder coaches are saying two-sport sensation Deion Sanders is itching for the football season to begin. After all, the same folks who have translated all the excitement of *Football Pro* into *Front Page Sports Baseball* are busy working on the next release of the pigskin's best rendition. It will include new rules such as the 2-point conversion and 30-yard line kickoffs, plus the 1994 NFLPA players and team rosters. Be sure to look for all the details in your box of *Baseball.*

CHICAGO TO HOST BASEBALL'S BIGGEST STARS

League officials promised today to release the site of this year's mid-season showcase. All 12 of *Baseball's* realistic, 3-D stadium models are contenders. Officials admitted the stadium choice is really up to the user. The computer chooses teams based on actual player performance. With all the stars in baseball, the action is sure to be felt all the way into the upper deck.

WIND 10, PITCHERS 0

In an amazing game showing the effects of high winds, Toronto and Oakland traded home runs, combining for a total of ten. Mark McGwire, Ruben Sierra, Terry Steinbach, Rickey Henderson, John Olerud, Paul Molitor, Roberto Alomar and Joe Carter all contributed round trippers. It could only happen in a game like Front Page Sports Baseball where temperature, humidity, wind and rain are all part of the game. So you get all the unpredictability of Mother Nature—as well as the chance to display your own skills. In fact, ball flight is based on a real physics model. Where and how far balls are hit is a true combination of pitch speed and the swing of the bat. The better you are, the better your team does.



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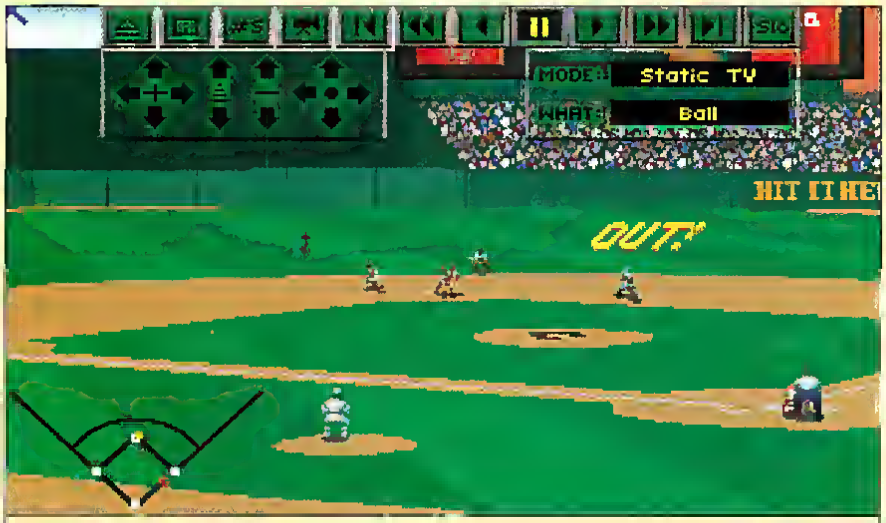

VCR-like controls for instant replays make sure you catch every bit of the action. Watch from virtually every angle in the stadium.

NETWORK TOUTS NEW EQUIPMENT FOR INSTANT REPLAYS

The best part of watching a game at home is the instant replays. Thanks to *Front Pages Sports Baseball*, this year's instant replays are going to be hotter than ever. Multiple camera angles are available for every ball put in play. Special controls even allow you to follow the ball so you track its every move as each play takes place. VCR-like controls let you slow down, speed up, and even reverse the action. Save unlimited replays to create your own game highlight films—or put together highlights for the entire season.

LEAGUE CALENDARS TO COME OUT TODAY

Fans all over the country are clamoring for their season schedules to start planning the games they'll personally attend. Fortunately, *Front Page Sports Baseball* makes it easy to generate calendars for all regularly scheduled games. What's more, detailed box scores are provided for simulated games so you can find out what happened and how every player did. A special one-pitch mode lets you view just the critical pitch for every at-bat. In minutes you can review the key plays of an entire game.

WHO'S ON FIRST?

Get the baseball game with all the strategy and action of the big leagues. It's a round tripper for anyone who loves baseball. To get the complete score, call 1-800-757-7707 and ask for D840.

Futurists predict baseball will one day be played by robots

Pointing to advances in cybernetics, several futurists have predicted the game will one day be played by robots. Until then, *Baseball* can be played on a 386/33 MHz or higher IBM-compatible computer with 4MB RAM with EMS, MS-DOS 5.0 or higher, VGA, hard drive, and a 1.44MB 3.5" HD floppy drive or CD-ROM player. A mouse, joystick, and sound card (most supported) are recommended.

PLAYERS

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Playing Your Aces

Avoiding The Dead Man's Hand In Aces Over Europe

by Michael Rymaszewski

DURING WWII, MANY AN EAGER YOUNG PILOT ABOUT TO FLY HIS FIRST MISSION GOT A PERSONAL PIECE of advice from his commanding officer: "Don't worry about shooting anyone down—just get back in one piece." These words might ring particularly true to heavily decorated sim pilots who have sat down to ACES OVER EUROPE. There has been a dramatic improvement in the AI of flight sims, and the quality of the computer-steered pilots in ACES OVER EUROPE makes your opponents from the Pacific look like bumbling novices.

GALLANT GALLAND Not only a great pilot, Adolf Galland became the youngest commanding general of Germany's Fighter Command.

As challenging as it is, though, ACES OVER EUROPE *can* be mastered—if you ignore most of the tactics and suggestions in the AOE manual and develop a few useful habits of your own. This is especially true if, like me, you like playing at 100% difficulty level, with no mission replays—the closest a sim can get to the real thing.

HE WHO STRAFES AND RUNS AWAY...

If you're looking for the maximum number of kills, you'll want to choose a Luftwaffe pilot since many of their missions involve intercepting bombers over friendly territory—allowing you to bail out, if need be, and defend your skies again. Of course, if you're simply looking for glory, you can fly for the USAF. American pilots are decorated for the second time after only twenty kills, as opposed to twenty five in the Luftwaffe and the RAF. US flyers tend to get more escort missions, as well. You can pile up quite a few kills this way, since Luftwaffe fighters concentrate on the heavies rather than the "little friends." If you simply want game points, however, you'll want to join the RAF. The RAF flies as many missions against ground and sea targets as against air, and these can quickly fatten your point total. Contrary to what is said in the manual, Best Careers are ranked by the number of *points* scored, not number of victories for each pilot.

GREAT HORSEPOWER, TWIN CANNON, SHE'S A STEAL AT THIS PRICE!

One of the strongest points of AOE is the improved flight model. There are vast differences between all those planes, and it's up to you to exploit them. The best fighter planes in WWII were the Mustang, the Spitfire, and the Focke-Wulf 190. Choose one of those, and all you need is enough space on the fuselage to mark all those kills, right? Well, all of these fine aircraft can turn on a dime—with the notable exception of the FW190F, which handles like a Thunderbolt. Problem is, the sights are really tough to line up, and what you actually need is a stable gun platform. Furthermore, the famous Mustang is very fragile, relatively lightly armed and difficult to get out of a spin, and the Spitfire—especially the Mk XIV—will have you blacking out every time you attempt a tight turn.

So, what do you fly if you want a long, successful career? Here are my choices, based on bitter experience:

RAF: The Typhoon and Tempest win hands down as the best choices—and that includes American and German fighters, too. Both are heavily armed and can take a considerable amount of punishment. Both are extremely stable, letting you find the correct deflection angle with ease. Most importantly, both can outrun Ger-

MOVE 'EM OUT A P-47 Thunderbolt rides herd on a flight of B-17 Flying Fortresses, as they strike into the heart of Germany.

man fighters, helping you out of tight spots. The Spitfire comes in next, with the Mark IX being as good as the Mark XIV. Although slower and with bad rear visibility, it is a better gun platform of the two.

Avoid the Mosquito. Although very heavily armed, it is next to worthless in a dogfight, from which it rarely escapes.

Luftwaffe: Although the FW 190A is difficult to aim, it packs an extremely powerful punch. Its superior armament makes it the best choice until the Dora Nine version puts in an appearance later on in the game. The destroyer version, the FW190F, is an excellent gun platform, but is slow and turns poorly, making for a difficult time against good enemy pilots. The Messerschmitt 109 is stable and nimble, but also very fragile with limited ammo.

Flying the Me 262 is the worst choice. Despite being extremely fast and powerfully armed, it turns very poorly, and is easily damaged. Climbing into the cockpit of the Me 262, you are often rewarded with a flight of diving Allied fighters, leaving you to take off only after your plane is damaged. Also, Me-262's rarely enjoy the luxury of a wingman.

USAF: My American fighter of choice in AOE is, surprisingly, the Lightning. It is well armed, and the concentration of armament in the nose makes marksmanship fairly easy. It is wonderfully stable and difficult to damage. Although it wasn't considered very maneuverable, in AOE it can out-turn any German fighter (more about this later). Actually, I've managed to do better on the Lightning than on any other Allied plane, often fighting against vastly superior numbers. On one mission, I managed to down seven FW 190F's; on another, four FW190A's including one flown by Priller; on yet another, I took on six Me 109's, shot down three, and damaged the remaining three badly enough to turn for home without interference. The last of these heroic single-handed combats occurred under the worst conditions—at low altitudes, with no space for a prolonged dive—and the Lightning is too slow to run away.

The Thunderbolt isn't a bad choice, with its stability and good firepower, but handles worse than the Lightning. The vaunted Mustang comes in last, because in AOE it's an easy airplane to shoot down.

A 1955 interview of Heinz Bäer—a Luftwaffe ace that is featured in AOE—had some viewpoints which differ from the way the planes were modeled in the game:

"Pilot quality was the great imponderable factor until combat was actually joined. In general, the P-38 Lightnings were not difficult at all. They were easy to outmaneuver and were generally a sure kill. The P-47 Thunderbolt could absorb an astounding amount of lead and had to be handled very carefully. The P-51 Mustang was perhaps the most difficult of all Allied fighters to meet in combat. It was fast, maneuverable, hard to see, and difficult to identify because it resembled the Me 109. Of course, the quality of the Spitfire needs no elaboration. They shot me down once and caused me at least six forced landings."

> "Pilot quality was the great imponderable factor until combat was actually joined."
> —Luftwaffe Ace Heinz Bäer

RIGHT-HAND MAN Werner Molders (left) compliments his wingman, Hartmann Grasser, on a recent kill. Molders created the wingman concept with a two-plane formation.

DANCE OF DEATH A lone P-51 Mustang is caught in a "rolling scissors" stalemate with a Focke-Wulf 190.

SURVIVAL TACTICS

The *logical* choice would be to join the best unit equipped with the plane you want to fly. The *right* choice is to join a squadron who's pilots are rated as fair or average. If you join a crack unit, you'll find that you are often asked to fly missions against expert opponents. One of the characteristics of expert computer pilots in AOE is that they shoot with great accuracy from all angles and impossible distances. Additionally, the aces and experts in your own flight can't help you if they have their hands full—which is liable to happen if your flight gets bounced by the Abbeville boys, or the Wolf Pack. Remember, it's not up to your comrades on how well you fare—it's up to you.

The key to survival in AOE is thinking for yourself, the moment your mission briefing appears on the screen. Choose a flight plan which is most likely to allow you to reach the target without being damaged in between, but with enough fuel to get home. Once you're in the cockpit, switch all the guns on. You'll have to watch your ammo, but at least you'll be ready for action.

Switch to autopilot upon attaining the required altitude. When the autopilot turns itself off, reduce the throttle and pull on the joystick. Flying just behind and above the rest of the flight is the optimum position, with no risk of collision, plus a constant knowledge of which way

the flight is going. When sighting enemies, remember that their position is given relative to the direction of the flight, rather than your individual plane.

Next, consult the flight map to see whether you can get rid of the drop tank. Generally, it's a good idea to drop everything you're carrying the moment enemy planes come into sight. Then, punch in full throttle and climb while you flip through the side and back views to get the total picture.

Now, even though the AOE manual and every war memoir you've ever read have told you to stick to your section leader at all costs, you need to realize that what worked in real life doesn't work quite so well here. Stay reasonably close to your flight so you can both offer and ask for assistance if needed. Then again, if your flight is getting shot to pieces, either run straight for the target or for home.

Never treat your flight leader's orders as sacred. The flight leaders in AOE are remarkably stupid, and will always urge you to keep attacking a ground target or a ship even as your flight is being sliced into tinfoil. Sometimes, they'll even tell you that the enemy fighters you've just spotted are friendlies. At other times, they'll acknowledge your report and calmly keep on flying with the full bomb load, only ordering you to dump your ordnance and fight after the enemy has opened fire. So, ignore your leader's silly exhortations and assess the situation yourself.

THE FINE ART OF DOGFIGHTING

During a dogfight, keep checking the sky all around you; the side views can be even more important than that of your six, since an aircraft chasing you from behind won't get within firing range as fast as one coming from the side. Don't use the external views unless you're sure no enemy planes are nearby; it costs too much time.

BULLS-EYE! P-51 rounds caught in mid-flight before slamming into an enemy fighter.

My favorite sky check is to break into a sharp turn and complete a full circle with the upward view on. This gives you a clear, panoramic picture of the action, and lets you make a non-confusing transition to the forward view.

Always go into action on full throttle, and keep operating that throttle throughout the fight. Whenever you want to slow down immediately or turn tightly, cut the throttle and break into a stall turn. You can also slam down your flaps if you aren't going in excess of 280 mph. This will also help you turn very tightly indeed. The enemy pilots in AOE are very good shots, and they're likely to get you unless you use your rudder for maneuverability.

Most probably, at some stage you'll find yourself going in a circle with one or more enemy pilots. If you use flaps in conjunction with the rudder, you'll find that you can out-turn almost every airplane you come across, regardless of your aircraft. Also, you won't stall, which is particularly

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helpful if you're fighting an ace. They fly very slowly, turning very tightly, sliding onto your tail when you overshoot.

The quickest way to get the enemy in your gunsight is to turn constandy while working alternate rudders, lifting your plane into a stall turn, then gathering speed again in a shallow dive. Apart from drowing off the opponent's aim, this will put you on his tail faster than any other tactic.

If you do get badly hit, remember this: the consequences of bailing out in AOE defy logic, being designed to punish anyone who doesn't fight 'til the bitter end. If you throttle back, turn upside down, and jump, you'll be killed. On the other hand, if your plane is screaming earthward in a flaming spiral, you'll most likely survive.

GETTING KILLS VS. GETTING KILLED

Don't close to point-blank range before firing, even though both accepted wisdom and the manual say you should. Enemy pilots tend to slow down sharply when they sense you're close behind, and when damaged, will practically stop in mid-air. If you don't collide, you'll overshoot, and the next thing you know they'll be shooting at you. I find the optimum range for opening fire to be around what looks like 100 yards. This lets you hit them, correct the deflection angle and fire a second burst to finish things off without any risk of overshooting or collision.

Shooting down bombers is another story. If you're flying for the Allies and find yourself against Ju-88s (relatively rare), ignore your leader's orders, ignore the bombers, and go for the fighters. You might give a bomber a quick squirt, as "Johnnie" Johnson would put it, if it happens to pass across your sights. Other than that, don't even think about them until the fighter escort is dealt with. Although the bombers will be out of sight by then (the visibility range in AOE is about 3 miles in fair weather), you should be able to pinpoint their position on the flight map.

A word about that flight map. Because of its scale, plane formations won't show up unless they are only about a dozen miles away. If you patiently click the mouse on the empty land around the little airplane showing your position, you'll get a window informing you of the location of the nearest plane formation (although sometimes, the sim will identify plane wrecks on the ground as an active flight).

DOWN IN FLAMES Bringing down an enemy ace is much harder than in ACES OF THE PACIFIC, but patience will be rewarded.

BOMBER INTERCEPTION

If there's a fighter escort, make one pass at the bombers, following with a second one if it's safe. When armed with Gr.21 rockets, dive behind and below the enemy. The moment the rearmost bomber starts to "fill out," taking the shape of an actual airplane, fire the rockets straight ahead, *without* aiming upwards as recom-

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ALL DECKED OUT "Gabby" Gabreski was America's top ace in Europe, downing 31 planes.

mended by the manual, since they will rise in a parabolic trajectory anyway. You almost can't fail to bring down a bomber this way, and you'll always split them up.

If there's no escort and you still have ammo for your cannon, don't make close firing passes at the bombers—the defensive fire is really fierce. Instead, switch your guns to cannon alone and pursue the fat boys below and behind. The moment your target begins to fill out on the screen, cut the throttle, raise the nose, aim carefully, and fire away in short bursts. You will still be out of range of defensive fire, and should be able to bring down several bombers in this manner before you run out of cannon shells. Then, switch to the machine guns, and make a few high speed side passes, aiming for the cockpit. Once, I managed to down a Liberator with just eight bullets from each gun. By contrast, spraying the whole aircraft with fire could use up all your bullets on a single plane.

GROUND TARGETS

In attacking ground targets, there is only one golden rule: keep below 200 feet on your way in and out. The flak in AOE is dangerous, but it won't fire at you when you're that low. Though you may catch a few bullets from machine guns, you will very rarely have any consequences from these attacks. If you do suffer damage over the target and you've encountered enemy fighters on the flight in, and did not shoot *all* of them down, turn to the flight map to plot a new path home. Otherwise, you'll run into the remaining enemy planes again.

Adolf Galland, the German fighter ace, enumerated four qualities necessary in a fighter ace. These were: very good eyesight, very quick reflexes, very great self confidence, and a very good shooting eye. In AOE, very good eyesight should be replaced by very good dimensional imagination because of the limitations of the medium. However, the remaining three conditions hold as true as they did in reality.

Happy hunting!

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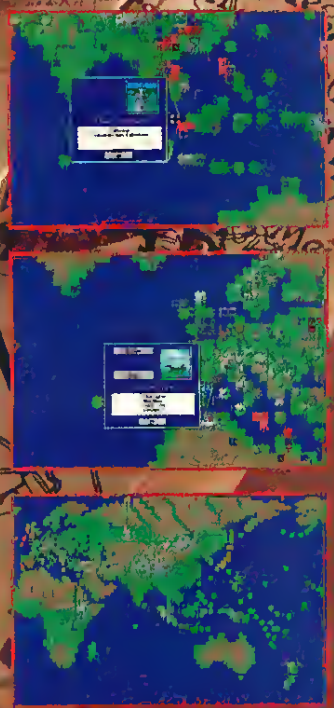

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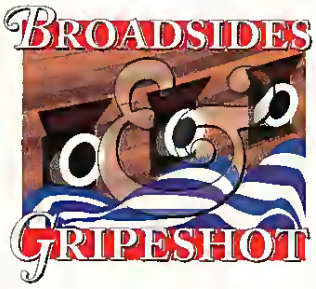
Bridging the Gap From Paper to Pixels

THE RESURGENCE OF COMPUTER WARGAMES SHOWS NO SIGN OF RETREAT, AS SEVERAL PAPER WARGAME CREATORS MAKE THE SILICON LEAP.

by Alan Emrich



MANY READERS OF THIS COLUMN ARE MEMBERS OF THE OLD SCHOOL WHOSE WARGAMING PREDATES HOME computers. I suppose you could say there were "computer" wargames before the 1980s, but the processor was your brain, and the interface was not mice and keyboards but dice and cardboard.

Some converts to computer wargaming consider the continued existence of a board wargaming hobby as "quaint," those paper tigers seeking CPUs, while staunch defenders of the board game hobby see computers as lacking in sophisticated game designs, historical accuracy, and real opponent intelligence. Recent developments suggest that these two camps may soon be pitching their tents closer to one another, as several traditional paper wargame companies are making a mad dash to convert the best of their game designs to the PC.

It is no secret, for instance, that the oldest producer of board wargames, **Avalon Hill**, is making a renewed and serious entry into computer wargaming. Paper-to-processor conversions from "The Hill" include their KINGMAKER, BLACKBEARD, THIRD REICH and ADVANCED CIVILIZATION.

However, it is noteworthy that Avalon Hill's biggest wargame-producing competitor was **SPI** (Simulations Publications, Inc.), under the leadership of Jim "I disavow Victory at Sea" Dunnigan. When **TSR, Inc.** (the DUNGEONS & DRAGONS people) foreclosed on SPI in the early 1980s, many wargamers saw it as a black day. Now, Dr. Christopher Cummins of **Decision Games**, publishers of *Strategy & Tactics* magazine, has acquired the rights to SPI and all its titles owned by TSR, Inc. (and there are scores of them).

What does that mean for we silicon soldiers of fortune? Well, all of those great designs will no longer be relegated to the dusty shelves of collectors. "Doc Decision" will be sponsoring the release of an IBM and Amiga version of SPI's classic strategy boardgame, EMPIRES OF THE MIDDLE AGES. This excellent strategic level game covers about a thousand year chunk of European history over several scenarios. The elegance of the original Jim Dunnigan boardgame design has not faded with age, so look for

G-2

* Alliance Interactive Software, under their Digital Illusions label, will be publishing Arsenal Publishing's previously previewed TACOPS and EUROPEAN THEATER OF OPERATIONS: D-DAY games. They'll also be distributing Big Time Software's FLIGHT COMMANDER.

* Speaking of FLIGHT COMMANDER, designer/developer/janitor Charles Moylan says that the IBM conversion will be extremely faithful to the original Mac design and is "about two-thirds complete." DOS-heads will love its board wargame tactical feel, enhanced by considerable computer panache.

* In response to an on-line controversy-turned-brouhaha, MicroProse will not allow players to command SS panzer formations in the initial release of their upcoming ACROSS THE RHINE, a West-Front WWII tank simulator. Instead, death's head tankers will have to wait for the game's first expansion disk.

* Origins, the national game convention, is putting more emphasis on computer gaming this year. It's taking place in San Iose on July 7-10 and has been dubbed "Silicon Origins." Besides several computer wargaming companies, CGW will be attending. Care to join us? For more information, call (216) 673-2117.

(continued on page 108)

G-2 (continued from page 107)

*** Why have the Pentagon's "game" experts taken a sudden interest in InterPlay's Buzz Aldrin's Race Into Space? Simple. It's a game about procurement and managing scarce resources while deciding which programs to pursue and which ones to cut. That sounds like the military of the 90s to me.**

*** And what of Sid Meier's Civil War? In an interview, *CGW* discovered that the game's major design hold up has been resolved. Previously, players were having difficulty transitioning from the grand tactical (i.e., brigade/regiment level) combat system back to strategic planning. Now, it seems, the game's focus will shift more toward conducting grand tactical battles, and thus provide for a more consistent playing experience. While not yet back on the front burner, Sid Meier's Civil War is, at least for now, off the back burner.**

this title to be released through **RAW Entertainment** later this year.

While Decision Games is following the route of having their boardgames thrust upon them from out-of-house designers, that has not failed to net them a second silicon conversion. One game included in *Strategy & Tactics* magazine, The Far Seas, will be coming out as shareware for the IBM "real soon now." This was an intriguing game of German global commerce raiding during World War I. Frankly, I expect to see this lead to some "help wanted" ads soon, as Decision Games/SPI seeks programmers to computerize their wargame titles and continue empire building on the electronic battlefield.

But Decision Games/SPI and Avalon Hill are not the only paper pushers to seek the light of your monitor. Although most wargame companies, I'm sure, would listen to anyone willing to translate their products onto a computer platform, many of them have found a convenient bridge over the gap in Aide de Camp, the award winning play-by-email kit generator from Scott Hamilton's **HPS Simulations**. Even as Scott begins work on a massive, backward compatible 2.0 version update, boardgame companies 3W, Moments in History, *XTR/Command* magazine, and Rhino have joined The Gamers and Decision Games in supporting Aide de Camp with pre-generated PBEM kits for some of their games. With Decision Games picking up the SPI line, we'll be playing War in Europe and other classic "monster" boardgames by email more and more in the very near future.

OLD SSI WARGAMES ARE BACK IN PRINT!

Many of us made the switch from our old Apple, Commodore and Atari computers to the present day gaming realities of IBM at a price. We paid more than mere dollars when we converted to the world of MS-DOS, we also made our collection of wargames obsolete.

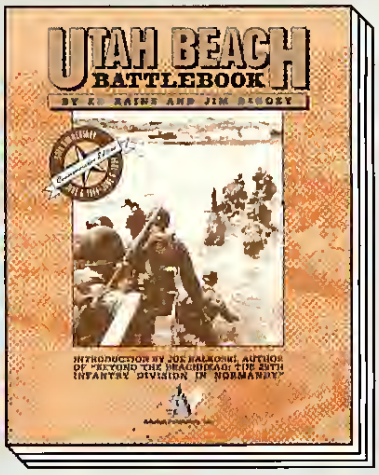
For all those who wish they could still acquire copies of those long out-of-print SSI wargames of yore, here is your chance. **Novastar Games** has garnered the rights to reprint such wargaming classics as our Hall of Fame winner Gettysburg: The Turning Point in the IBM format. These are straight reprints, though, sold in plastic bags and with photocopied manuals. They have not been upgraded or reprogrammed in any way.

To obtain a listing of the games available (including such titles as Second Front, Battles of Napoleon, Kampfgruppe, Mech Brigade, Storm Across Europe and War in the South Pacific), call Novastar directly at (916) 624-7113. These reprinted games are selling for $15 each, with a discount for purchases of three or more. That's a great price for these wargaming classics.

AT LAST, LEARN THE AMAZING STORY BEHIND UTAH BEACH

On June 6th, 1994, the 50th anniversary of the Normandy invasion during World War II, Arsenal Publishing proudly released the long-awaited *Utah Beach Battlebook*.

Written by Ed Rains, one of the original designers of the *V for Victory* series, and Jim DeGoey, the author of the critically-acclaimed *Harpoon Battlebook*, this book about Three-Sixty Pacific's award-winning *Utah Beach* historical simulation reveals for the first time the amazing story behind the game's development, how the program resolves combat, and the design concepts behind the game's three combat results tables. Profusely illustrated with actual game screens, all players will benefit from the comprehensive scenario analysis and tactical guidelines that show how to win as either the American or German commander.



But, the *Utah Beach Battlebook* is as much about the history of the battle for Utah Beach and the Cotentin Peninsula as it is about the *Utah Beach* game. Included are a day-to-day account of the 1944 campaign, over 70 historical photographs, situation maps, and a wealth of information on the American and German military units, commanders, and weapons that faced each other fifty years ago.

The *Utah Beach Battlebook* is a limited edition available for $19.95 exclusively from Arsenal Publishing. Add $3.50 for shipping and handling. VA residents add applicable sales tax.

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He Ain't Heavy, He's My Sovereign

Avalon Hill's Kingmaker Puts You Behind The Throne

by Terry Lee Coleman

FOR THOSE OF US WHO GREW UP PLAYING BOARD WARGAMES, AVALON HILL SEEMS ALMOST A PART OF OUR extended family. Games such as STALINGRAD and TACTICS II are relics of a bygone age, when wargames could still be found on store shelves next to MONOPOLY or RISK! While many wargamers feared that AH would go the way of the dinosaur, the company somehow managed to persevere, even discovering four-color artwork along the way.

As the years went on, AH began to diversify with family games (shudder), sports games (well, OK) and even (say it isn't so) role-playing games, the majority of which sold, and continue to sell, quite well. With the advent of computer wargaming, though, AH's adaptability didn't hit a snag, it came to a screeching halt. Games such as B-1 NUCLEAR BOMBER were dated even when they were released back on the old 8-bit machines. More recently, DIPLOMACY was a flop, and COMPUTER THIRD REICH, seen as a potential savior for AH's "Silicon Simulations," had one of the worst AIs of any wargame released by a major company. Most damning was that the game couldn't even model the rules of the boardgame, so inadequate was the conversion.

Kingmaker

Price: $59.95
System: IBM
Requirements: 2B6 or better, VGA graphics, 5MB hard drive space, mouse; supports AdLib, Roland, SoundBlaster sound cards
Protection: Documentation Check
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Publisher: The Avalon Hill Game Company
Baltimore, MD
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A SINGLE, SOLITARY SUCCESS

Since announcing their re-entrance into computer games, the question on every wargamer's tongue is: "Will Avalon Hill ever really manage to get a classic boardgame converted to the computer, and will they do it right?" Sure, OPERATION CRUSADER is great, but that was the guys at **Atomic**, right? And besides, that game is currently only for the Mac—what about us real wargamers that own IBMs? We've been jilted so many times, is this our last chance for the big dance?

While many gamers wait (not so) patiently for the IBM version of CRUSADER, they may find their cares readily forgotten with KINGMAKER, so long as they are willing to contest the Wars of the Roses in solitaire fashion. For KINGMAKER has one great oddity: it's a conversion of a classic multi-player boardgame that has no capacity for more than one player, totally neglecting hot-seating, modem, and play by e-mail.

In spite of this, the game is strangely addictive, and a class act. The first indication that this effort is something fresh is the striking intro art. The opening screens offer a spirited narration of the backstory by none other than Will Shakespeare. Obviously, such can be dismissed as mere fluffery, but the truth is that this actually helps suspend disbelief—especially the authentic British accent, which sounds more than a little like Malcolm McDowell.

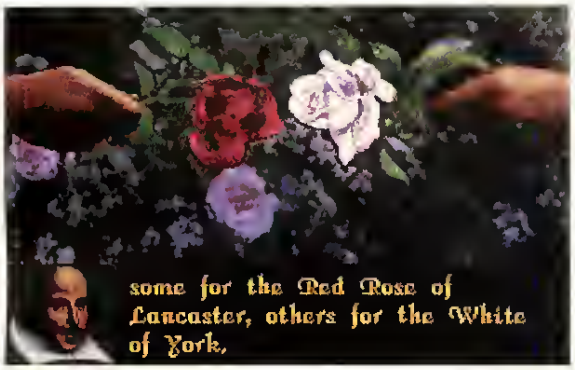
To my surprise, the game ran without crashing, despite the many on-line complaints to the contrary. But it has a mouse-only interface that reminded me of an Amiga game—due no doubt, to the game's European origins. There was not a hot key to be found. What's a real gamer to do?

THE PARCHMENTS OF PLAY

Many gamers shun documentation. Nonetheless, those used to 290-page tomes of obscure (and often questionable) design justifications, or worse, virtually no documentation (as with far too many games lately), will find the manuals included with KINGMAKER a pleasant departure from the norm and well worth poring over. Splashed throughout with color and eminently readable, the two manuals (historical and game) have been touched by Avalon Hill's deft graphic hand. Anyone reading the reference manual will have little trouble in play, the clumsy interface notwithstanding. In addition to the "need to know" information provided in the Reference Manual, AH has wisely included the historical "nice to know" information in a separate manual for those interested in the historicity of the conflict.

The object of play, for those unfamiliar with the boardgame, is to have control over the last surviving heir to the English throne. To this end, the various forces maneuver nobles of their faction, with their corresponding forces, around the land engaging in combat and attempting to kill off the heirs controlled by the other players, computer-controlled in this case.

Simple? In concept, certainly, but the game's real strength, like that of its boardgame father, is in the variety of ways you may achieve this goal. The nicest change from the version *CGW* sneak previewed in March is the flexibility of the AI.



A ROSE IS A ROSE Will Shakespeare sets the stage, as you engage in the gleeful pilfering of royal heirs from the York and Lancastrian houses.

Early on in development, it was readily apparent which factions were most dangerous. Now, the potential silicon opponents are more random in style and in the extent of their deviousness. For instance, one game had Neville ready and willing to cut deals with me for ransoming captured nobles. The next game, he was unbelievably aggressive, threatening to run me right out of the game.

Since gamers always ask if the AI cheats (presumably so they can complain if they lose), I did notice that they seemed to know more of what was going on than the human player. Then again, what good villain doesn't know more than the hero? At least the inevitably few cheats are subtle for the most part. One of the most obvious ways of increasing the difficulty of the game is to deploy before the AI players, similar in fashion to having to set up forces first in a multi-player human game.

FORGET ME NOT

A large part of the strategy in KINGMAKER is deciding which titles and assets to bestow on your nobles. While the titles are historical, you may choose to have Cromwell be the Captain of Calais, while Greystoke is the Chancellor of England.

TO ARMS, MEN! Issuing commands is limited to the number of nobles present at the battle, so plan carefully!

The latter is one of the most powerful positions in the game, as the Chancellor may call Parliament if there are two crowned heirs in play. As in real life, the clergy also have significant political clout, as only an archbishop or two bishops may crown an heir, and said heir must be in a cathedral for the coronation to be valid.

The various computer players are rather efficient at assigning titles and exploiting their effectiveness. Every office has its limitations, though, as even the powerful Chancellor finds the majority of his strength waning as he moves away from the safe confines of the Tower of London. For nearly every asset, there is a counter. In one game, I was boldly prancing all over the map with my strongest noble, having granted him the office of Marshall of England. Suddenly, I ran into a relatively small noble, Loos, who had the help of Saxon mercenaries. Ambushed, I could only watch in horror as my brave noble was beheaded, with a sonorous voice bellowing out over my speakers, "Thus perish, traitors all!"

STEEL MY SOLDIERS' HEARTS

Combat is a simple affair in the basic game, with increasing odds giving proportionally greater chances to defeat the enemy in classic "count 'em up and roll-the-die" fashion. Although easily learned, the disadvantage of the basic system is that smaller forces cannot win an outright victory and must hope for an indecisive result to fight another day.

The advanced combat system has a miniatures feel to it, simpler than in the recent FIELDS OF GLORY from **MicroProse**, but more fun. Each noble is deployed on a tactical battle display, and you decide how the forces will be split between left, right, center and reserves. You decide what each wing of your army will do, from shooting arrows to closing with a particular enemy force. Tension mounts as one force attempts to rout the other, while the enemy may strike directly at the opposing noble or heir. Since orders in combat are limited to the number of nobles present at the battlefield, often a group of lesser nobles can take down a single mighty force. But their life expectancy is just as short as it is in the basic combat system.

As if battle weren't enough to deal with, random events appear like the plague—quite literally. Each turn, cities succumb to the Black Death, along with any nobles or heirs which happen to be present. Storms may cause ships to find a safe harbor, or prevent a particular battle. Nobles may join your cause, or that of your enemies. But at least the AI players are subject to the same whims of fate as the human.

WHERE DID YOU COME FROM? Computer opponents are rarely predictable, making for an engaging and replayable game.

Actually, KINGMAKER is philosophically close to, of all things, CIVILIZATION. Like CIV, it has a fairly steep learning curve to master, which is mitigated by on-line hints—which, thankfully, are much more helpful than those found in CIVILIZATION. Those pesky computer opponents play a bit more fair than their CIV counterparts, but they are less forgiving. Human players will have to pay attention to advice from the manual, such as the suggestion to grab an heir on the first turn, as they attempt to juggle the many elements of play. Challenging and fun, despite its lack of high-tech glitz or multi-player options, KINGMAKER establishes a fine beachhead for AH's return to the computer wargame market.

KINGMAKER

★★★ 1/2

PROS Great subject matter, good conversion of a classic strategy boardgame, clever and varied AI

CONS No multiplayer option, repetitive animations that cannot be turned off, awkward interface

Whiff Of Grapeshot

Spectrum HoloByte's Fields of Glory Opens Fire

by M. Evan Brooks

The Tiger has broken out of his den
The Ogre has been three days at sea
The Wretch has landed at Frejus
The Buzzard has reached Antibes
The Invader has arrived in Grenoble
The General has entered Lyons
Napoleon slept at Fontainbleau last night
The Emperor will proceed to the Tuileries today
His Imperial Majesty will address his loyal subjects tomorrow.

—Richard Holmes,
EPIC LAND BATTLES, p. 51

WHEN NAPOLEON RETURNED FROM EXILE, HIS POPULARITY WAS WIDESPREAD, ALBEIT BRITTLE. The Bourbons had not developed any popularity during his absence (Napoleon characterized them as "never forgetting and never learning"), but Napoleon himself was no longer the fighting commander of earlier years. More importantly, his opponents had learned from him. The palindrome ABLE WAS I ERE I SAW ELBA holds a great deal of truth.

FIELDS OF GLORY (FOG) attempts to simulate Napoleon's Hundred Days campaign with six scenarios: Quatre Bras, Ligny, Wavre, and Waterloo, plus the fictional battles of Nivelles and Wagnee, the former postulating an earlier meeting engagement against the British, and the latter assuming a Prussian attempt to maneuver behind the French right wing. In addition to historical deployments, you may choose non-historic and free deployments, plus five levels of computer opponent complexity.

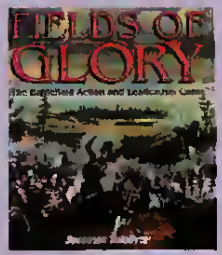
FOG features real-time game time. Time marches inexorably on, requiring you to act rapidly and decisively. As will be seen below, this offers both advantages and disadvantages, but the final question must be whether the simulation offers a historically accurate *and* entertaining experience.

MANUAL MANEUVERS

An introduction by David Chandler, the foremost Napoleonic historian, and an extensive bibliography round out the historical background for the manual. The accounts of the individual battles are succinct but clearly drawn, and the information on how to play the game is similarly well-done. The best part of FOG's documentation, however, is the database in the game. Details of units, battle honors and commanders—even down to brigade level—are easily accessible from the program. This is one of the best orders of battle ever developed for the computer, and almost justifies the game's purchase by itself.

Fields of Glory

Price: $59.95
System: IBM
Requirements: 386-16MHz, 2MB RAM, VGA graphics, 15MB hard drive space, mouse; supports AdLib, Sound Blaster and Roland sound cards
Protection: Documentation Check
Designers: Jim Bambra, Adrian Earle
Publisher: Spectrum HoloByte
Alameda, CA
(510) 522-1164



The colorful VGA graphics offer map scales in one, four, and eight mile increments. Having actually visited Hougoumont, I can vouch for the fact that the terrain representations are accurate. At the larger scales, troops are represented by battle flags; at smaller scales, in miniatures fashion, one figure represents 70 individuals. The overall feel is good, with uniforms and equipment varying according to historical appearance.

Traditionally, sound has been of minor importance in operational wargames, but the use of sound in FOG is unusually effective. In addition to impressive battle sounds, cavalry charges and recalls, each side has historical military music as an accompaniment. The French military airs are the same as those from the movie *Waterloo*. FOG is the first wargame that I have ever booted just to listen to the music.

TAKING CONTROL

All commands are issued with the mouse. You simply point to a unit, and an order menu appears. Orders can then be given in terms of formation (line, column, square, mixed, skirmish) and movement (assault, deploy, hold, withdraw). Artillery can be directed to fire against a particular target. It's all quick and easy, but maneuvering an army can be a challenging task. Commanders are rated in terms of competency, leadership and personality. You would do well to check your commanders carefully, and adjust the subordinate orders depending on the commander's abilities.

It is all too easy to be diverted to a particular segment of the battlefield, while ignoring the larger picture. While such attention to detail and its accompanying detrimental impact may be a historical truism, it still leaves an unsatisfying taste in the gamer's mouth. Time may be slowed down, but it still passes too quickly

for the user attempting to fight the battle at brigade level. Conversely, time passes too slowly when fighting at the corps level. While you may choose from three speeds, I'm still uneasy with the time scale.

Playing FOG successfully consists of balancing your time between the brigade and corps levels. Napoleon himself observed that he could always regain space, but never time. Thus, you set your forces in motion and intervene at the moments of crisis. Napoleon was a master at surveying terrain and determining the likely crisis points, as well as visually determining when and where to deploy his forces. For you, it is not so easy. Determining when to form square against cavalry or when to send forth your cavalry can be a momentous decision. Forming a square too early permits the unit to be raked by musketry and cannon fire; initiating a cavalry charge too far away can break its impact on a square's bayonets. Only experience will enable you to do dhis effectively.

Moving against buildings can be a confusing task. It's difficult to determine when troops can actually move into advantageous terrain, as opposed to merely stumbling around in front of the stone structures. The historical sand pit and sunken road are present at Waterloo, but their impact seems to be minor.

As units take casualties, the battlefield becomes strewn with corpses and the detritus of battle. Some users have complained that this detracts from the game, since it becomes too confusing to determine what is happening. I disagree. A battlefield is a confusing arena, and the sounds and sights in FOG are only a minimal representation of what is historically accurate. Those who insist upon an antiseptic battlefield can nonetheless save a game and restart from the saved position to remove the distracters.

PICKING BONAPARTES

Unfortunately, the computer opponent seems incapable of battlefield optimization, even at the highest levels. When playing the British against the French at Guard level (the most difficult setting), I did absolutely nothing, just to see what would happen. At Waterloo, the French did a credible job of battering the British center, but then refused to advance. The battle ended hours later in an indecisive result. Historically, such uninspired British leadership would have resulted in a massive defeat. The computer opponent reacts to the user's input, generally resulting in a head-on engagement with roughly equivalent casualties on each side. Attempting to secure a strategic victory is a difficult task, but one that can be accomplished by tricking the computer into advancing into "killing zones" with a few sacrificial units. Of course, the problem in creating a proper killing zone is that the rest of the battle continues on its inexorable course. The balance between hands-on and hands-off maneuver is a delicate proposition.

A WHIFF OF GRAPESHOT French cannons sound off in unison near a small chateau.

RANK AND FILE Your forces are arrayed on the battlefield with the feel of a tabletop miniatures wargame.

You *cannot* fight the battle exclusively at corps or brigade level. The latter clearly is too much to accomplish; the former simply does not work. Giving a corps commander the order to advance often results in units retreating in order to form a cohesive corps. You must fight the batde at different levels, which is both interesting and aggravating.

In looking at FOG, I am reminded of the classic boardgame *Napoleon's Last Battles*. With a roughly equivalent scale, the boardgame offered the four historical battles *plus* the entire campaign. The lack of a campaign option was a major disappointment, until I realized that the game mechanics were incapable of accurately portraying such an event. The real-time of FOG makes the Waterloo battle itself virtually too large to manage well; a campaign option would simply be unplayable. The end result is that FOG offers an insight into the ambiance of the Napoleonic battlefield, but also makes generalized tactical solutions dependent on particular events.

At Waterloo, when the Prussians arrive, the British player will discover that he cannot access the allied units. Initially, I found this to be disturbing; however, upon reflection, I feel it is an inspired design choice. Coordination between the British and the Prussians was tenuous at best, and by using the Prussians as a non-controlled ally, the simulation actually better represents the Prussian role than most games. Thus, you must adapt your battle plans to the Prussians; usually, this is not decisive because dhe overall pattern of the batde will generally be apparent before dheir arrival.

Victory can be a deceptive goal. Overall casualties are not easily accessible, and you are often left unsure as to the overall flow of batde. While the casualties may be accessed from the database, this is a cumbersome process. There doesn't seem to be a clear breaking point when the opponent withdraws from the field, and satisfying as it may seem to kill the enemy command staff, this has little impact on the combat troops.

FORWARD —FOR GLORY—FOR FRANCE!

Though it has its problems with AI, time scale and obscure victory conditions, FIELDS OF GLORY is both challenging and interesting. I wouldn't recommend it to a general wargaming audience, but those with an interest in the period will find much to tickle dheir Napoleonic fancy.

FIELDS OF GLORY

★★★

PROS Covers a neglected historical period, good on-line database, sounds, battlefield graphics

CONS Command schizophrenia, poor AI and play balance, awkward interface

How Does Ironbottom Sound?

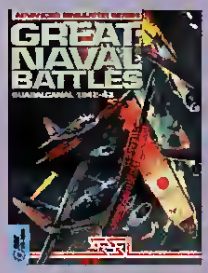
SSI's Great Naval Battles II Sails to Guadalcanal

by Josh Bruce

THE NIGHT IS STILL, THE ONLY SOUNDS AN OCCASIONAL COUGH AND THE WHISPER OF STEEL BATTLE CRUISERS slicing through the midnight blue waters. Patrol in "The Slot" requires days of loneliness, followed by stark minutes of sheer terror. I look in vain for our enemies, but see nothing in the inky blackness. Suddenly, an explosion lights up the straits with an incandescent fireball, and ships of both sides are transformed from their dreary gray, as the horrifyingly vibrant colors of gunfire and starshells fill the night. The Tokyo Express has arrived, right on schedule.

For years, while checking out the latest wargame releases, my eyes would invariably wander to the new CRPG's just to see the pictures. I mean, sure, they were full of exploding gnomes, but they always had the nicest looking exploding gnomes. It just never made sense to me why GABRIEL KNIGHT, a game about voodoo and New Orleans, could have these incredible blood-and-violence graphics, while PACIFIC WAR, a game about blood and violence, got stuck with the "we'll add pictures if it's in the budget" style of programming. Fortunately, this has changed with SSI's new release, GREAT NAVAL BATTLES VOL. 2, GUADALCANAL (GNB2). It has enough looks, detail, and enough chrome to choke a restored '57 Chevy. But how does it sail?

Great Naval Battles Vol. 2, Guadalcanal



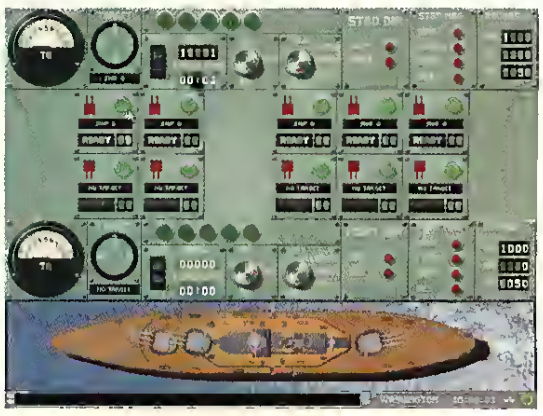
Price: $69 95
System: IBM
Requirements: 3B6/33 MHz, 4 MB RAM, SVGA, 14 MB Hard Drive space, mouse
Protection: Documentation look up
Designer: Roy Gibson
Publisher: Strategic Simulations, Inc.
Sunnyvale, CA 94086-2901
(800) 245-4525

SAILING WITH NEW TRIM

The graphics on GNB2 are simply superb. Each ship is presented in stunning SVGA graphics, with any and all damage visually displayed. There are quite a few period photographs which have been digitized and pressed into service as dramatic backdrops and there are various animation sequences on a number of screens. At times, the graphics are truly astounding, significantly beyond most of the wargame graphics seen before now.

Even the game manual is stunning. It weighs in at 162 pages and easily half of this is occupied by ship, aircraft, and armaments dossiers. Unfortunately, the half-hearted and very brief historical commentary would make Marvel Comics look definitive, especially considering that everyone isn't an expert on the battle of Tassafaronga. Worse, the rest of the rules manual fails to adequately explain all of the various ship systems and controls, despite its claim as a comprehensive naval simulation. Even after reading the manual twice and playing all three tutorials several times, it took me more than ten hours to learn how to command all the ships efficiently.

Each ship has eight stations that can be accessed; task force, bridge, main guns, secondary guns, torpedoes, aircraft, damage control, and lookout. These are theoretically available for every ship, though some may be inoperable. For example, an aircraft carrier carries no torpedoes, and a destroyer obviously has no aircraft. As you command several task forces with a number of ships in each, it rapidly becomes obvious why the learning curve is so long.



READY...AIM...WAIT A MINUTE Micro-managing every detail can be interesting, but it does tend to slow your ship's reactions to opposing vessels.

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Circle Reader Service #171

Q.Q.P.'s Strategies of the Month

By:Steve Cohen

The Grandest Fleet

"Don't do it", I yelled at the machine as my Flagship sunk to the bottom of the sea. I have finally learned that flagships are not invulnerable. Next time I will protect it with more than just 1 or 2 ships. No more Mr. Nice Guy...I will get more devious. Hmmm...A pre-emptive strike with 4 or 5 subs will do some serious damage to his front line forces, followed quickly with a clean up force of carriers and battleships. I will, however need to use my PT boats to be my eyes and ears before the ruckus begins.

Zig Zag

The alphabet box can be a very helpful utility in solving the puzzles. Putting an X on the chart next to the letters that are in the word really lets you see things clearer. Try this challenge; Score over 25,000 points on a 7 letter word without using the alphabet box to aid you.

Origamo

When traversing the maze, remember that you can get past certain obstacles by entering their part of the maze and simply go past him to the adjacent room. You may not be able to play his puzzles, but you can move right past him. Don't panic when playing a faster moving conveyer, just relax and put some blocks in the dump, you do have 50 pieces to throw in the dump.

Bridge Olympiad

Experienced bridge players should try all the bidding conventions. Each plays slightly different, but can add more spice to your own playing style. Also...try the different partners, they do have different personalities and playing styles.

The Pure Wargame

Be real careful about your modes. Forced march, can change the way your troops react in some crucial situations, thus it should only be used in certain situations. The AI is quite strong so don't underestimate your opponent.

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For example, by accessing the main gun station, players can choose what type of salvo to fire (spotting, loose, normal, or tight), what type of ammo to use (star shell, high explosive, or armor piercing) and can go into each individual turret for a view of the targeted ship and manual aiming of the gun. Simple enough in theory, but hardly so in practice. Let's say you have three task forces, each with four cruisers, and each cruiser has three main turrets. That means that there are 36 turrets to choose from, in addition to handling all the other myriad options. What saves you from becoming a micro-manager is that each station can be controlled by the computer.

Herein lies the inner beauty of GNB2. While players can control *all* equipment of *every* ship in *every* task force involved in the battle, the computer can adequately handle most of these functions. It is a simple matter of pointing and clicking to change any station from automatic to manual, but most players will find a few stations to call home and leave the rest to the computer. For example, I will normally delegate all stations to the computer except for navigation (to implement tactics), gunnery (to mass fire) and damage control.

Why the latter? Because it's a great deal of fun. In fact, this ability that most other games gloss over is one of the high points of GNB2. Ships are divided into two or three levels overlaid with a grid, with each resulting square containing various types of equipment ranging from magazines to propeller screws. When damage occurs, some squares will be destroyed, fires will start, and flooding will occur. Fire and flooding will spread rapidly if unchecked, but can be combated through the use of damage control parties. Water pumps can counter-flood the ship, pump out flooded compartments, or put out fires. This is really a sub-game within GNB2 as you attempt to keep your ships floating, and provides an interesting perspective for any would-be admiral.

CHOPPY SEAS

Nowhere is GNB2 weaker, however, than in its handling of the air campaign, which seems added almost as an afterthought. To illustrate how awkward GNB2 can be, in order to launch a search mission you must ready the planes at every available airfield or ship that has them, including battleships and cruisers, which also carry search aircraft. After waiting 30 minutes, you access all of these myriad units yet again to launch the airplanes, pick a spot for them

Circle Reader Service #179

HIT THE DECK The idea of having planes in GNB2 is nice, but doesn't really fly in this naval gunnery-based game system.

to fly to, and select the angle of search. To call this cumbersome is too kind. GNB2 is many things, but it is not an air combat game and shouldn't attempt to be.

The seven battle scenarios are quite good the first time you play them, but suffer from being *too* historically accurate. Enemy forces will always appear in the same strength, at the same point, at the same time every time you play it, which tends to limit replay value. Without a random scenario creator or a scenario editor this game is doomed to sit untouched on many a game shelf. However, the game does offer a full campaign game, and this promised to be GNB2's saving feature. Sadly, the campaign scenario looks more like Grenada than Guadalcanal. It is boring, ahistorical, and monotonous. Played in real time, with one second equaling one to four seconds of game time, it presents a bewildering array of options to the player, few of which are interesting. Victory hinges on taking Guadalcanal, but this is accomplished through the use of an abstract system, where the player delivers troops and supplies to the island while the computer handles the land forces. With control of the island being so important, more player control over the forces stationed there is needed.

My first "great naval battle" campaign ended with the Japanese losing one cruiser to airstrikes, and the Americans simply occupying Guadalcanal—not exactly the WWII version of Trafalgar. In addition, the Japanese never attempted to reinforce Guadalcanal, and provided a very weak challenge. This is not the case with the scenarios, where the computer is a better opponent, until repetition sets in.

I also encountered a problem with the reinforcements, or lack thereof. Sources at SSI revealed that depending upon the difficulty setting, some or all of the scheduled reinforcements will not arrive. This appears to be based on a random factor, coupled with the difficulty level one is playing at, and left me wondering whether Roy Gibson or Nostradamus had designed this game (when the moons of Jupiter are aligned in Aquarius, then the seas shall run red and the sky shall sing, "Shoho has arrived").

Supposedly, one playtester got through an entire game and never received any reinforcements. This never appears in the rules, and I would have assumed it to be a glitch in the program, had my trusty editor not investigated.

GREAT NAVAL BATTLES 2 reminds me of my High School prom date—all looks, no brains. What SSI needs to do is take the superior graphics and detail of GNB2, and add these to a solid game design, such as

SAILING A STORMY SEA Approach that enemy cruiser in the distance with care, as you can never be sure when (or if) reinforcements will show to help you out.

PACIFIC WAR. While pictures will spice up a game, they won't carry a poor design that has no replay and limited entertainment value.

GREAT NAVAL BATTLES II: GUADALCANAL 1942-43

★★1/2

PRO: Outstanding graphics, flexible control options, excellent damage control model

CON: Repetitive scenarios, poor AI in campaign mode, exasperating manual

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Now That's Poker Action!

Electronic Arts' PowerPOKER Finds Itself In The Chips

by Alan Emrich

POKER: THERE IS NO GREATER AMERICAN GAME. SURE, MONOPOLY HAS A LOT OF CHARM, AND BASEBALL packs 'em in the stadiums, but what feeling in gaming can compete with aces back-to-back? No game is more portable, more playable and more engrossing than a stakes game of poker. It is played throughout the world in gambling halls and basements, and has seen more homemade variations than anything this side of the kitchen.

Naturally, this great American game has also found its way onto our PCs. Like any traditional multi-player game, the trick when translating it to solitaire computer play is to simulate the action at a busy table and keep the game exciting. POWERPOKER's approach to simulating poker table *action* is what sets it above its competitors.

PowerPOKER

Price: $49.95
Systems: Macintosh, IBM with Windows
Requirements: Mac: 1MB RAM (System 6.0.7), 4MB RAM (System 7+), 5MB HD space, mouse, PowerBook compatible
Protection: None
Players: 1-10 (network)
Designer: Todd Ouzts
Publisher: Electronic Arts, San Mateo, CA (800) 245-4525

The mind behind this mastery is designer Todd Ouzts. Between 1986 and 1991, his labor of love was to write the 50,000 lines of Pascal code that have become POWERPOKER. Todd studied "a mountain of poker books and paid his share of 'tax-deductible research expenses' in Vegas, Reno and California card clubs" during the more than 6,000 hours it took to complete this game. His hard work, dedication and research have paid off. EA was quick to seize upon his home grown computer game and have released it on the Macintosh. They will soon follow up with a Windows version.

Using a display representing enough seating for 10 different players, POWERPOKER always eases the solitaire human player into the action from seat 1. While the default game when first played is standard 5-Card Stud, this product has more varieties of poker than Heinz has sauces. In fact, a quick count reveals over 100 poker variations ready to play. Sure, all the standard games that poker players know and love are included. Games like 5- and 7-Card Stud, 5-Card Draw, and Texas Hold 'Em will always set the poker standards. However, I was pleased to find such variants as Baseball, 3-Card Monte, 2-Card Stud, Omaha, and even Spit-in-the-Ocean included among the myriad of games. There were even plenty that I had never heard of. It's evident that the designer read the footnotes while studying all of those poker books.

TOOL TIME FOR POWER PLAYERS

Since poker is America's game, it's only right that POWERPOKER allow us to engage in another great American pasttime, tinkering. Yes, POWERPOKER allows players to customize games to suit local player preferences. To my knowledge, this is a new facet in computer poker games, and one that I found to be particularly intriguing.

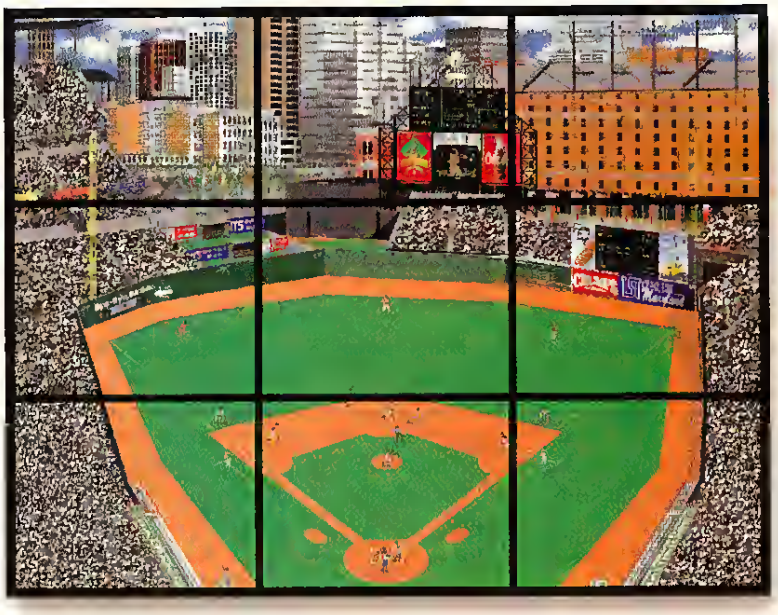
POWERPOKER allows players to quickly and easily "program" the sequencing and nuance of virtually any kind of poker variation. Perhaps you want one or two jokers to be wild, but, if dealt face up, you have to match the pot. Perhaps you want to create a "lowball" game with the low-spade-in-the-hole getting half the pot at the end. Could you do that? With POWERPOKER, the answer is an emphatic "Yes!"

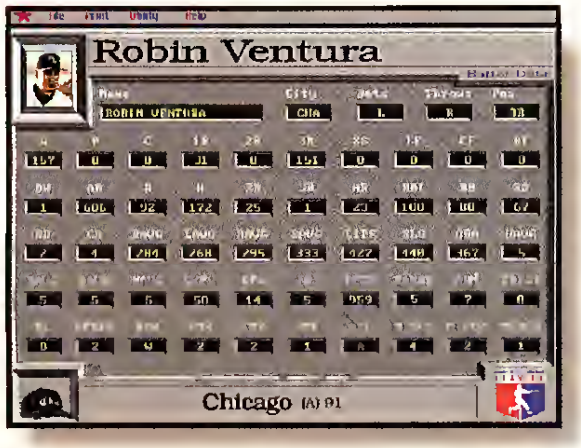
The custom game builder is not the game's only great tool. More power is also found in defining each game's various "house rules" (antes, table stakes, check-and-raise, raise limits, betting limits, etc.). Each of these variables defines the nature of the table and one's interest in the game. For example, will the game be dealer's choice, favorites only, or a single game such as 7-Card Stud Casino Style? Are jokers wild, or just "bugs" for aces, straights and flushes? How many players will you seat at the table? Will they enter and leave the game randomly like they do at the clubs? This game is so flexible with its player-definable variations that the only game I couldn't program was our local version of 7-Card "No Peeky," but then it would probably take a team of NASA scientists to program that game the way *we* play it.

I HEAR THAT

The feature that I enjoyed the most in POWERPOKER, however, was the dealer patter. Although it sounded somewhat "computerized" on the Macintosh version, the dialogue and slang were exactly right. The program's use of synonyms kept the banter from getting too repetitive, and a male or female dealer's voice could be selected. It called 'em all perfectly, keeping players alert to who had

THE ONLY THING MISSING IS THE DRIVE TO THE STADIUM.





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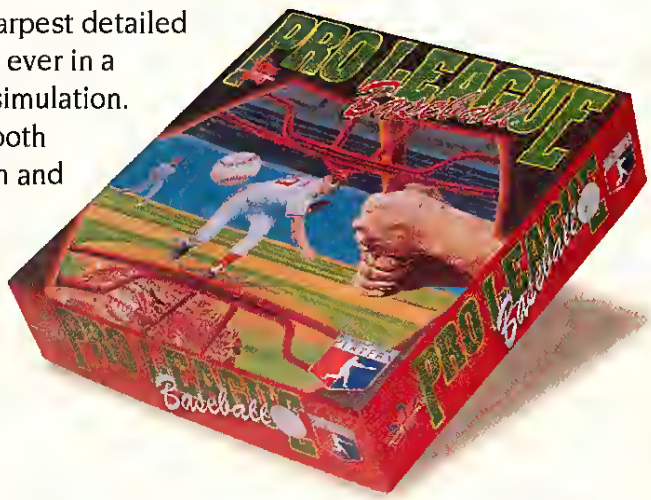

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MAJOR LEAGUE BASEBALL PLAYERS

ANTE UP Strategy gamers and poker enthusiasts alike will enjoy the eclectic styles of play shown by the various opponents.

the lead (although not signaling "possible" straights and flushes as dealers do in Vegas, nor ever referring to aces-and-eights as the "dead man's hand," but these are just quibbles). The other sound effects, of clacking, rustling chips and snapping, shuffling cards also added to POWERPOKER's compelling play environment.

The real clincher, though, was a feature that poker enthusiasts have long desired: network play! Although I've played poker several times with others via computer on The ImagiNation Network, this is not a feature that I recall seeing in any boxed computer poker game. While there is no modem option supported, the fact that an entire office could be goofing off (er, "working") concurrently over a network gives it an added star in my book. The fun is not only in passing the deal, but sending the messages back and forth that equate with good old poker patter. (Riddle: How can you tell when poker players are lying? Answer: Their lips are moving.)

STIFF COMPETITION?

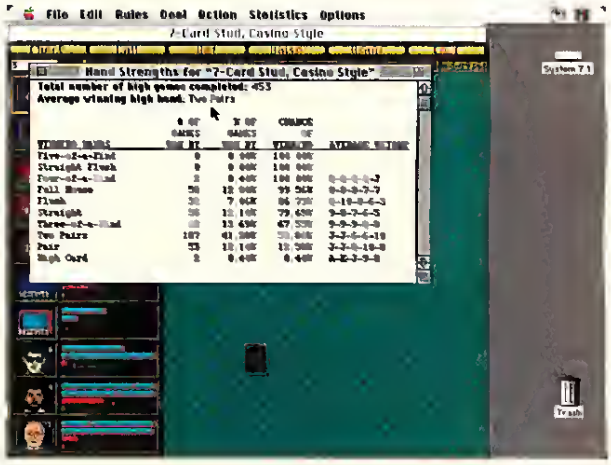
Having two distinct sets of computer player opponents to play against was another nice touch. The first set is the standard artist's rendition of character faces, complete with occasionally changing expressions as their fortunes change. The optional set of players featured the digitized "Not Ready for QuickTime Players." This average bunch of nice-but-slightly-nutty neighbors appear as digitized mini-movies. Their real-life facial expressions and mannerisms are a pleasant diversion, and they really help humanize the game and suspend disbelief. However, waiting for them to yak does slow down the action a bit, so impatient players might not be ready for QuickTime, either.

These computer players, while not slouches, are not of the more professional caliber found in **Villa Crespo**'s AMARILLO SLIM'S DEALER'S CHOICE. This might well be because the artificial intelligence in POWERPOKER has to be pretty flexible to deal with the many variations of play. Players are advised to let the computer players play amongst themselves for 20 or so hands before you join the table. This builds up an internal database of winning hands and percentages for the computer players to reference when making their playing decisions for a particular game variation. Until a decent database is built up, their play style is noticeably erratic. However, even after a number of games have been logged, the computer players do not evolve into predatory poker card sharks. While not completely reckless, their play style remains loose, which keeps the action lively with every hand. Tight players will be able to make their money over time while loose players will find themselves swimming in action. Either type of player will find their reward when playing POWERPOKER.

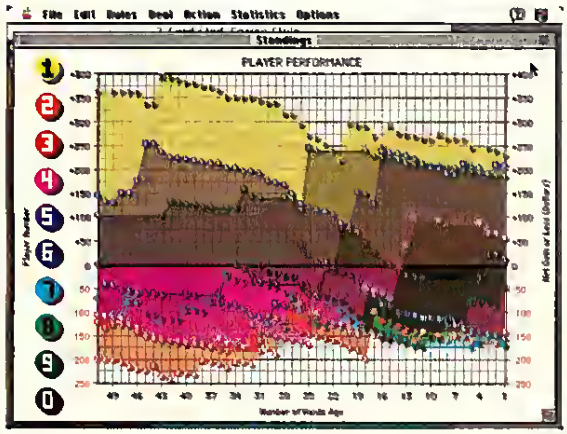
From the standpoint of statistical analysis, AMARILLO SLIM is also superior, although POWERPOKER keeps track of overall winnings and computer players' play based on past-hand analysis. What POWERPOKER doesn't do is buckle its players down and really teach them how to master the game of poker and win consistently against all comers. Players seeking to graduate to this level of advanced poker playing will definitely have to seek out AMARILLO SLIM to get the lessons and analysis they desire.

THE POT'S RIGHT

POWERPOKER is absolutely the right game for all but the hardest of hard-core computer poker players, and even those players will probably want to relax with the wonderful features and variations that POWERPOKER has to offer. The charming sounds and animation add considerably to the game's power and diversity. Throw in the network play, and you've got office gambling like there's no tomorrow (or, in our case, no deadline). For the casual and the social computer poker player, POWERPOKER has become the one to beat.



FOLD OR CALL? The well-informed bettor can see the range of typical hands with a mere click of the mouse.



MONEY IN THE BANK Keep track of your monetary wins and losses with the player performance chart. A shame you can't take this to Vegas!

POWERPOKER

★★★★

PROS Flexible game creation tools, videos and speech raise charm ante

CONS Computer opponents lack savvy, more entertainment than instruction

My son and I love this game!!!

Great work!!

Robert Strauss, Burbank

My daughter (11 years old) and I have become "Oxyd" addicts. We cannot wait to begin exploring the many other levels. Thanks for creating such an excellent product. R. S., Germantown

This is, without question, the most impressive game I have ever seen. I am amazed at the audio, visual and action. George L. Tanty

Wow! That's all I can say about Oxyd. What an incredible game! One of the nicest games I have seen in a long time. Thanks for creating such a challenging piece of software. I'm completely hooked! The game is really slick, well designed. Those first 10 levels alone were worth paying for! It is rare to find such a visually appealing, addictive and playable game.

One of the most elegant games I've played. Jeffrey Jondahl, San Diego

I enjoy this game a great deal and so do my children and their friends. It is just what I have been looking for !! Jerome Wescott, Minneapolis

Oxyd has to be the most artistically superb piece of programming that I have seen. From my position of having completed about one third of the single-player levels, the landscapes have been continuously varied with a marvelous attention to graphic and audible detail that makes each new one a continuing delight. I especially appreciate how the marble interacts in seemingly realistic but different ways when rolling over or bouncing against different "natural" (or unnatural) substances like stone, wood, swamp, freefall etc. At this point, I'm already worrying that I'll run out of levels. Jeffrey R. Harrow

Even our 3yr old enjoys the game.

I just had to write to tell you how much fun I've had playing Oxyd. The attention to detail - the sounds, the textures of the surfaces - really adds to the fun of the game. It invites the imagination for a ride.

Thanks also for making all of the landscapes challenging but not impossible. Tom Phoenix, Portland

I'm really impressed with your game, Oxyd. Congratulations on a unique and fun product, and best luck to you all. John M. Dodd

Oxyd Credits:

Game of the Year 1993
Australian MacWorld

Best Brain Game 1993
MacWorld Game Hall of Fame

Game of the Year 1992
Computer & Pädagogik 06/93

Game of the Year 1992
Display Computer Club e.V. Germany

The variety of play is literally, incredible. Score this game a solid 10
Current Notes 06/93

"A" rating - Wow! Exquisite. A must for your games library.
AmigaWorld 06/93

Game of the Month.
MacWelt 02/93

Top of the Charts
Brain Teaser Category, PC Games German edition

Treat of the Month
Atari Roundtable in GEnie, 12/92

Editor's Choice
PC Games German edition, 12/92

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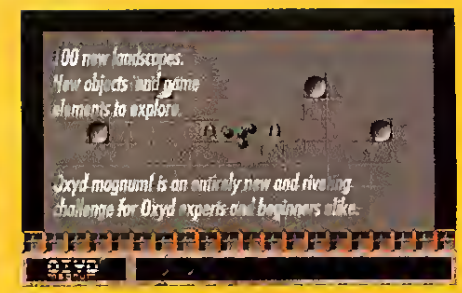

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Some fine comments about Oxyd magnum!
I like Oxyd magnum because it's different in every landscape, surprising, challenging, compelling and fun! Every landscape is like a new game. It's so tricky! It drives my wife crazy. More levels and just as good as Oxyd. You have challenged me! Thanks. My wife and I like to play puzzles together. It's unique. Great puzzles. It's aesthetically pleasing and exercises the mind. It makes me and my kids think and we don't have to punch or kill anything.

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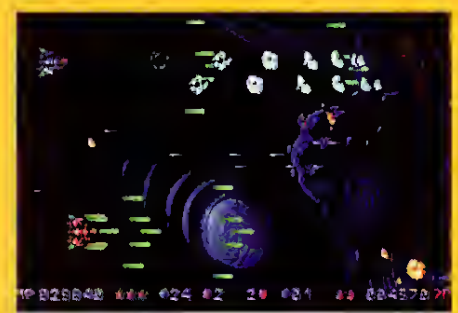

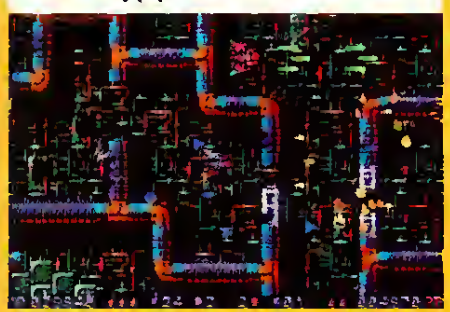

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Circle Reader Service #63

Tread Upon The Shining Path

Achieving Mastery Of Romance Of The 3 Kingdoms III

by Josh Bruce

IT'S TIME TO SHARPEN THAT POLEAX AND PRACTICE YOUR HUMAN WAVE TACTICS; WOULD-BE EMPERORS, PETTY WARLORDS, rebellious peasants, and usurping eunuchs stand in the shining path to the throne of **Koei**'s ROMANCE OF THE THREE KINGDOMS 3.

The lands of second-century AD China offer a bewildering array of choices and challenges as you attempt to reunite the Empire after the collapse of the Han Dynasty. Victory may seem elusive as you battle strange men in stranger cities, but your chances to win are enhanced by following some simple guidelines. The first thing you need to do is get your bearings. Unless you are very learned in ancient Chinese history and geography, you'll be stopping at every hut from here to Xiliang asking for directions.

ON THE ROAD TO LUOYANG

The geography of ancient China is extremely diverse, and needs to be considered before beginning a campaign. The West offers broad expanses of open territory, but these are poor provinces with little agricultural or economic value. Along the coast, provinces are worth far more, but are held by strong warlords. In the middle of the map lies the capital city of Luoyang. This province is extremely wealthy and should be the player's first objective after recruiting and training a respectable army. Remember that when plotting your strategy there is a sizable difference between cities, larger ones having far more value but many more defenses.

At the outset of the game, you may choose which of the many Chinese warlords you will portray. Choose wisely, as this decision can mean that the rest of the game may not be winnable. Dong Zhou has a large army, but will have a very difficult time finding allies. Liu Yan has few nearby enemies, but inhabits a very poor region of the map. Gongsun Zan is virtually worthless, and will present a boring game as the player waits until another warlord decides to blitzkrieg him. When choosing which character to be, remember Josh's 1st Rule of Computer Games: "Whenever possible, be the guy on the cover of the box!" Cao Cao is a strong character, with good leaders, a rich province, and the inside track on winning the game.

In order to fully master RTK3, four separate spheres must be dealt with: politics, infrastructure, strategy and tactics. Upon picking a warlord to play, you need to form alliances with all neighboring provinces and any large factions, regardless of where they are on the map. Once this is done, you should work on lowering the hostility level of any province that borders your own until it reaches zero. The best way to do this is by simply sending envoys to the province to ask for token help (i.e. one food or gold unit). The other province will almost certainly give you this small amount, and its hostility level will decrease by five. By doing this, you will gain time to build up your military forces.

Don't be shy about asking other provinces for help, particularly when you begin running low on food or gold. It is a simple procedure to use, and it can quickly solve your financial worries. An excellent financial ploy is the "Iran-Contra Gambit." If you desperately need soldiers, but have no food or gold with which to raise troops, then send your best diplomat to a wealthy ally and have them ask for a large amount of food. Then, send another officer to sell half of this supply at the market for gold, and suddenly you are ready to recruit more soldiers. This ploy can be repeated as many times as you have officers. While mastering the political aspects of RTK3 is critical to winning, learning to manage your empire is critical to survival.

JOSH'S 1ST RULE OF COMPUTER GAMES Whenever possible, be the guy on the cover of the box.

SUN-TZU SCHOOL OF ART

Two facets of empire management warrant special attention: officers and the military. The number of officers a ruler has in his retinue determines how many actions he may

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initiate. It is therefore important to have several officers with your ruler, but since each must be paid a yearly salary, you should not do this to excess. The key is to maximize efficiency through the special abilities of each officer. Have several officers that handle diplomatic affairs, some for recruiting troops, and some for commanding men in battle. Reward your officers whenever their loyalty begins to sag. Having an officer turn traitor in the middle of a battle can ruin your whole day.

Military leaders assigned to army command should spend all of their time training and rallying their forces. Begin by putting as many soldiers as they can command under their control. Then, train them until their training level is 100. Next, rally the troops until they reach their maximum morale. Treat training levels and morale very seriously, as they are the most important factors in combat. Now that you've learned how to conduct politics and run your empire, you may begin formulating your strategy.

ALLIANCE OF REGRESS

The broad strategic considerations of RTK3 focus on making friends and conquering enemies. Begin by forming alliances with all neighboring domains until a large military force has been built. Once this is done, decide which domain you wish to conquer and begin threatening them until their hostility level reaches 100. Then, revoke the alliance so that your soldiers' morale and officer loyalty will not decrease when you invade the area. If you have any allies who border the area in question, arrange for a joint invasion of the city. Depending on the strength of your enemy, you should either push on until they are completely conquered, or sign an alliance with them after taking two or three provinces. Further, be sure to sign alliances with any neutral warlords who border areas you plan to invade.

The question of where to invade is an issue that deserves special attention. The ultimate goal of the game is conquering all of China. Two preliminary goals should supersede this: forming a front line, and conquering Luoyang. Your empire should have its back guarded by the ocean or a map edge so you can expand your power away from this zone without being caught in a two front war. Once you have established your faction within a safe area, it is time to push on towards Luoyang.

Luoyang, the former capital city of the Han Dynasty and richest province in the game, must be taken at all costs. Though usually heavily defended, it is far from impregnable and can be secured with a strong army. Begin by advancing towards Luoyang one area at a time, slowly but surely, staying focused on your objective and crushing any warlords in your way. The numerous battlefields compromising the Great Wall, which surround Luoyang, can prove to be very tough defensive works. If at all possible, attack Luoyang from either Wan or Hongnong, as this will outflank the Great Wall. Once Luoyang has been taken, you will be in a strong central position, and can proceed to conquer the rest of China at your leisure. Proper strategy will place your men in the right place at the right time, but winning battles hinges on mastering tactics.

AMBUSH A crossbow disadvantage is much less of a problem if you surprise your foe in heavy woods.

ATTACKING ON TWO FRONTS Slipping troops over the wall tends to split the defender's forces, and is a great way to open his gate.

Tactical considerations include use of weaponry and terrain. There are a variety of weapons available, but some seem a bit expensive for their battlefield worth. Horses are very useful, as they increase mobility, but they cannot scale walls. Crossbows and super-crossbows allow a player to use ranged attacks against an enemy, but do not do a great deal of damage. While players will find some use in these special weapons, they are not enough of a factor in a battle to decide the issue by themselves. Of far greater importance is what type of terrain is being fought over.

Upon attacking a city, the first thing that must be done is to look at the intelligence window on the right hand side of the screen. If your enemy outnumbers you, but has little available food, a siege is in order. Place all of your forces on standby and wait while the enemy's food supplies dwindle to nothing, at which point they will withdraw. This is a bloodless way to victory, but can be a time-consuming process as you sit and wait for the enemy to starve.

A STORM IS BREWING

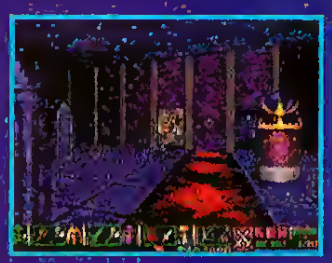
The other option, of course, is to take the city by force. The key to storming a city lies in getting your army into the city as quickly as possible, and then assaulting the castles. Select an officer whose forces are trained and rallied to their maximum. Move this group to the head of your assaulting forces, then use them to scale the walls near a gate. On the next turn, send them circling back to open the gate from the inside. This is a much better way to gain access to a city, unless you get a thrill from battering down doors.

Once your army is inside the city, focus your attacks on taking the castles. Move all of your forces towards them until they are encircled with every available unit. Use the attack and simultaneous attack commands to storm the castle, then move on to the next objective. Remember to garrison the castle you have taken, or enemy forces will reoccupy it and you'll have to clear it out again.

When defending a city, don't be afraid to sortie out and fight in the open if the attacker only has a small force; otherwise, use the terrain to your advantage. Put as many units in the castles as you can, and

Getting totally into it is easy.

Getting totally out of it isn't.



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A RUDE AWAKENING Yu Jin gets off to a bad start, after stumbling into a trap in the rain-drenched fields of Ye.

just hope that the attacker runs out of food, or reinforcements arrive before you are destroyed. If severely outnumbered, don't be afraid to withdraw. You are going to lose the city anyway, so at least you can save the army to fight another day.

With the exception of the wide diversity of terrain, fighting in a non-urban setting is not significantly different from fighting in a city. One type of terrain that does deserve special mention is the Great Wall. This ominous defensive work, which roughly encircles Luoyang, is a great boon to the defender. Station as many troops as possible on top of the wall and wait as the attacker senselessly tries to scale it. When attacking, try as much as possible to corner defending units away from this defensive work and destroy them before they can get up on it. If you are attacking a Great Wall area and find yourself outnumbered or evenly matched, withdraw immediately and save yourself the time and casualties. Remember, it is better to lose quickly than to sacrifice your army proving that it can not be taken.

As a final note, after extensive playing of this game I have had only one naval battle. Most fighting occurs on land and naval warfare is a relatively rare occurrence. Since ships are pretty expensive and not often used, my advice is to avoid building them, at least for your first few games. Concentrating on land combat using the strategies outlined above, players will find that they spend more time conquering China and less time trying to figure out what is going on. While you will still find the game challenging, the reunification of China will be a much less daunting task.

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Game by Megasoft Entertainment. Published by FormGen Inc. (800) 263-2390

Circle Reader Service #65

Machiavellian Machinations

How To Lose Friends and Dominate People In Merchant Prince

by Tim Carter

ANY GAME BASED ON MACHIAVELLIAN PRECEPTS IS BOUND TO OFFER AMPLE OPPORTUNITIES FOR RUTHLESS people to air out their strategic ambitions. Of course, while you're courting allies (and plotting to ambush them), your human opponents are devising equally sneaky maneuvers via modem or e-mail. So MERCHANT PRINCE from **QQP** hinges on cunning diplomacy, and a knack for 14th Century skullduggery doesn't hurt, either.

To win at MERCHANT PRINCE, you have to build a fortune through trade and politics. So, the game can be divided between trading and political actions, the latter including religious and military activities.

IT'S NOT EASY BEING GREEDY

As you warm up to your tights, concentrate on exploring and developing trade routes. Before dabbling in religion, politics or military adventures, you'd better have a functioning trade system in place, and a lot of extra cash on hand or on the way. Dabbling in the world of politics and religion early on will only waste money and time while your opponents build a war chest for a sustained political push later. Remember, most games last 100 years or more. You'll have plenty of time in the last few decades of the game for political domination and manipulation, so be patient. Don't be tempted into politics even if the opposition is already active there. Once a major cash reserve is available, any lost ground can easily be made up.

What aspiring Marco Polos need to do early on is explore as much of the world as possible, identifying cheap sources of goods and markets for the highest prices. But don't go in search of the New World, because you'll need to get cash flowing as quickly as possible.

Once your trading empire is up and humming, it is useful to distinguish between two types of trade routes: milk runs and cash runs. A milk run is usually a moderately profitable line between two cities relatively close together. A good example is glass from Venice in return for gold from Budapest, one of the best starting trade routes on the historical map.

LURE OF THE ORIENT Cash runs to faraway cities are riskier, but trading wine for silk can be more than a little lucrative.

Milk runs should always be programmed into the computer and then left alone. Their purpose is to generate operating capital and underwrite cash runs. Cash runs generally involve multiple transports and longer distances in order to see higher profits. As your trading network and wealth begin to grow, some cash runs will become milk runs, and larger cash runs can be created. You should never worry about a financial base, as long as the milk is flowing.

The major difference between a milk run and a cash run is the way their profits are used. Milk runs ought to be used to gradually expand trade routes and maintain cash flow. They should not be used, at least early on in the game, to fund political activities. Cash runs represent the cream of the crop, producing the biggest payoffs, and they can supply the capital necessary to mount a political campaign. Furthermore, funding political campaigns outside of the day-to-day cash flow keeps you from overspending and thereby hurting your overall trade effort.

In general, there are a few other trade practices that can greatly aid profits. Don't concentrate on shipping at the expense of land transports. Some land routes can net bigger profits than sea routes. Roads can make land transportation almost as fast as shipping, faster in some cases because roads can often be built straight between two cities.

Mules or camels can be used as warehouses in any major hub city. This is particularly useful for high value goods or for bare-cupboard tactics (see below.) For instance, on the historical map a profitable route is usually from Timbuktu to Tang-

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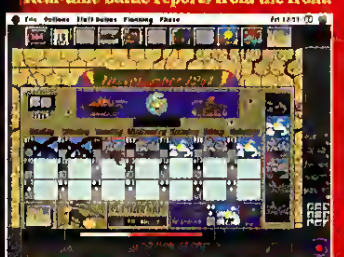
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LANDSHIPS Camels and donkeys lack the speed of galleys, but function as mobile warehouses in hub cities.

iers or Tunis. You can make more money, however, by keeping a unit in the destination city for storage. When high-value items are sold in the city, buy them with a storage unit and vector a ship for pickup and resale in that city. This is faster, more profitable and more direct than sending a ship from Timbuktu to a city such as Venice, and is much more flexible.

Galleys do not require guards and they are capable of outrunning most pirates. On average, unguarded galleys will suffer a lower attrition rate than guarded cogs. Galleys are usually the best buy early in the game, except for short runs. They are a bit cheaper, and they generate cash much faster due to their speed. They are also much more effective for exploration, given their ability to sail up smaller rivers.

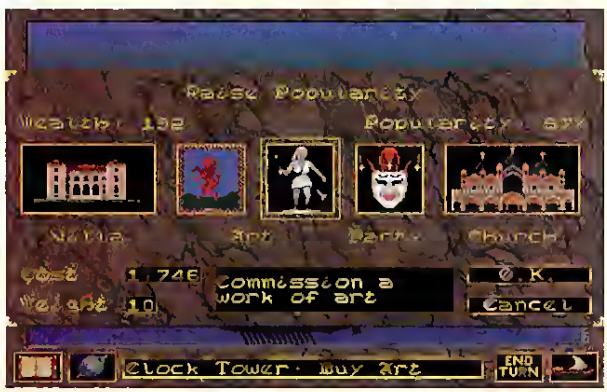
SILK-COLLAR CRIME

There are a number of dirty tricks in trading that can be highly useful for building an empire and confounding your opponents. A word of caution about dirty tricks in general: they tend to be cyclical in nature and can often result in your own demise. No one is safe from retaliation, which should be foremost on your mind before pretending to be Caesar Borgia and scheming against your rivals.

Having said that, here are some ways to go about doing it, and possibly getting away with it. The easiest way to mangle other trading networks is through piracy. Hire a mercenary force and station it along a crucial trade route looking for easy prey. It is often possible to anticipate where and when a large number of enemy ships will appear, and it is easier and safer to pilfer them the farther you are from Venice. It is actually possible to capture enemy ships and cargo, leading to a direct profit, although profits rarely cover the expense of hiring mercenaries. This tactic can be very rewarding, however, if an opponent has constructed a treasure fleet loaded with high value goods.

A more subtle way to monkeywrench enemy trading is by keeping their cupboard bare. When playing against human opponents, it is possible to buy all the goods in a city before their turn. Usually, this approach is effective only when a limited number of goods are available. Additionally, the game system provides limited quantities of goods for purchase by your competitors even if you buy everything during your turn.

The periodic plagues that sweep Europe can seriously hamper trading efforts, but can also be turned to your advantage. Because the effects of the plague are applied after you have entered the stricken city to buy or sell goods, it is wise to sell in plague cities but not purchase there. Then, if your trading units are wiped out, you will have benefited from the inflated prices, without losing valuable cargo to the disease.



SOCIAL GADFLY If you can't find ways to increase your popularity in Renaissance Italy, you're playing the wrong game.

BUYING THE GRACE OF GOD

Once a trading empire is established and a large amount of surplus cash becomes available, players should begin to invest in the Church. Cardinals are a good investment, as they provide cash every turn in the form of indulgences. The end goal of this religious campaign is obviously ascension to the papacy.

While it is possible to become Pope by buying a majority of the cardinalships, the necessary votes can generally be rounded up through negotiation. Becoming Pope is not as important as what you do once on the papal throne. A clever Pope can control the papacy by regulating the number of cardinals on the market. Since the Pope gets 50% of the market price for each cardinal, if you sell to yourself, cardinals are half-price.

DOLLARS AND SENSE Mercenaries and Pirates are a quick way to strike at your enemy's heart, but are about as subtle as assassination attempts.

As Pope, you may excommunicate cities or call crusades. The crusades are not really effective until the popularity of the papal faction is high enough to draw a significant military force. Excommunication can be put to more immediate use. Excommunicated cities pay a much higher price for imported goods, vastly increasing the profits of traders who sell there. You might even use your papal powers to excommunicate a trading destination immediately before a shipment arrives, thereby raising profits.

FROM POPE TO POLITICO

Once the papacy has been decided, and a large war chest accumulated, it is time to enter the realm of politics. If possible, it is a good idea to begin a political career by targeting the neutral faction. The main reason for this is that the neutrals don't hold grudges to the same extent that other players do, and their potential for retaliation is much smaller.

The important thing to remember

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about politics is that it is essentially a zero-sum game; in order for you to win, someone else has to lose. As such, a successful political career is not generally conducive to a lot of lasting friendships.

Thus, it is usually a good idea to have one's political alliances established before beginning a sustained drive for power against human opponents. The computer appears unresponsive to bribing, and it is sufficiently weak that a political campaign can be conducted even when all three computer opponents are hostile.

Once Doge, always appoint your faction as Council Head. The Council Head effectively controls the senate through his ability to remove senators at will, which offers the power to keep other factions in line. The military posts should be ignored, as you ought to have enough money to hire your own army long before you become Doge anyway.

MORE DIRTY TRICKS

The dirty tricks available in the political realm are a lot more overt than in the economic sphere. Assassination, rumor-mongering, and arson are readily available and surprisingly affordable. The only real question here is whom to attack and how far to go. Against human opponents, it is necessary to carefully judge the likely fallout of a dirty trick. Remember, you are as vulnerable as your opponents, and an all-out war is likely to benefit no one.

When you have to knock out an opponent, make sure you are not going to force all of the other players to align against you, then go for his jugular. Reputation isn't nearly as important as political and economic power, so forget about rumor-mongering and go straight after your opponent's cardinals and senators. Spare cash is not wasted on a smear campaign, however, as a low reputation increases the cost of buying political support.

Once an attack has been launched, carry it through to the utmost of your abilities and resources. Go after the opponent's trade as well as political position. If you can create enough financial problems for him, he may not be able to afford to retaliate.

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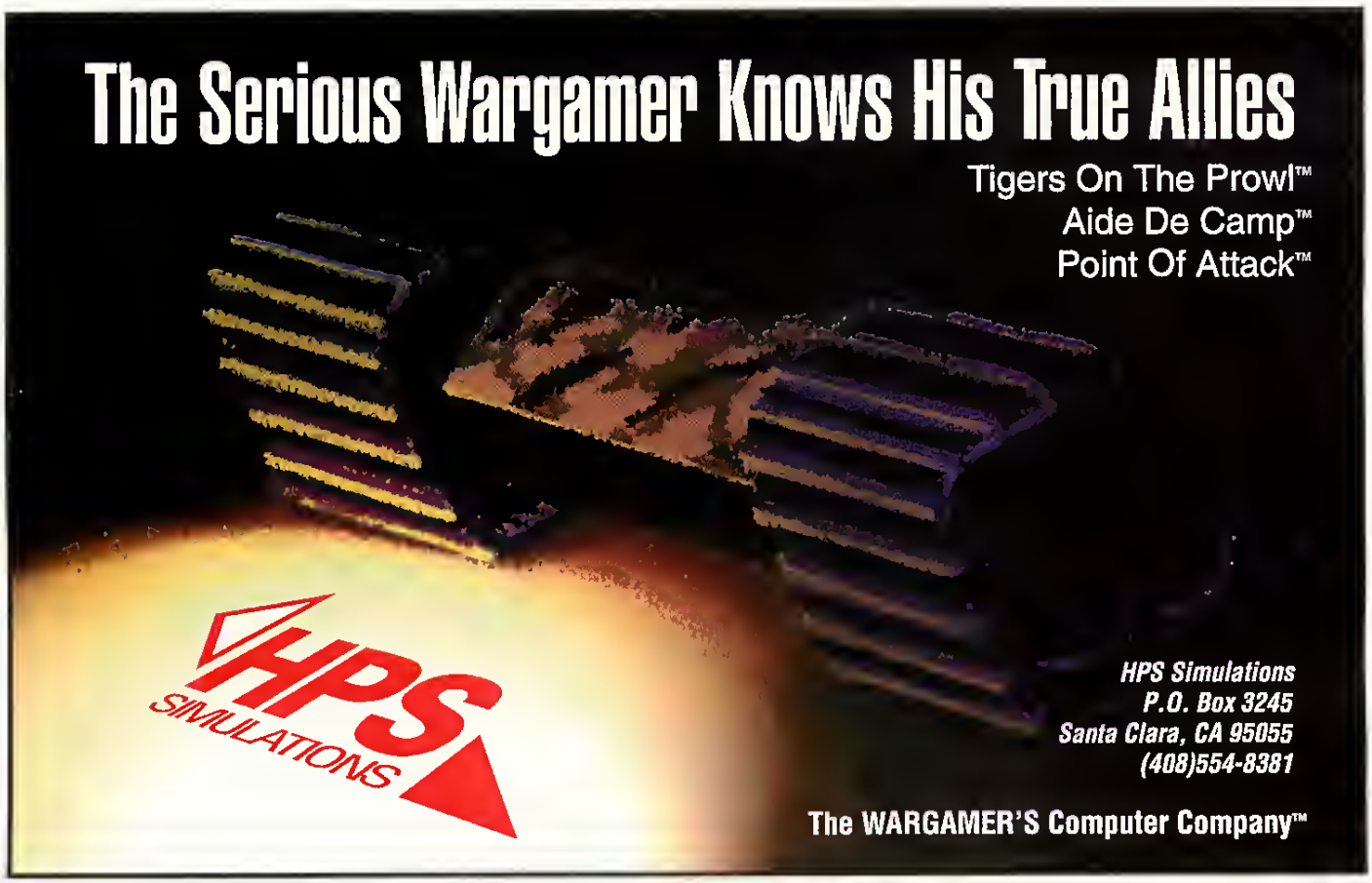
PAPAL DECREE Not to suggest bribing the Pope, but a few timely gifts might be in order when election time rolls around.



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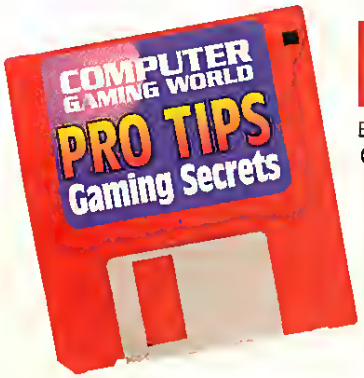

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OPPONENTS WANTED

Looking for a Patton to play against your Rommel? Need some fresh meat for network Doom-fests? On the hunt for a gamer's bulletin board system in your area? Well, you might find what you need on CGW's White Page. If you'd like to place your own ad, send us a postcard, CGW Poll card, letter, FAX [714-283-3444] or email (Prodigy [EXPT40B], CompuServe [76703,622], The Sierra Network at [Box 1048], GEnie or America On-Line at [CGW]). Generally, we run them only once, so send another each month you want your name listed. The ads themselves should serve as reasonable examples to write your own. However,

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Ziff NET

Computer Gaming World **magazine also appears as its own Forum on CompuServe's *ZiffNet*. To access our editors and writers on-line, just GO GAMINGWORLD. Topics include: Hey Editor!, Opponents Wanted, The Hardware Zone, Online Gaming and many more. Join us, won't you?**

PRIVATE BULLETIN BOARD SYSTEMS

The Check Six 88S is an excellent source of all the latest flight simulation updates, utilities and messages. The system is registered on the InterNet as [checksix.com]. Check Six carries all of the major USENET newsgroups relating to air combat, flight simulations and other PC games like Doom. In addition, Check Six provides official customer support forums and InterNet email addresses for Keyboard Commander Corps [kee@checksix.com] and ThrustMaster [thrustmaster@checksix.com]. The system is also the Southern California hub for SimNet, a simulations network carried by bulletin boards around the country. The cost for a full year's subscription is only $25 (120 minutes/day, 4mb/day downloads and an InterNet email address). Limited free access is also available. Modem in at (714) 362-8299 / 8N1 1200-28 8kb, 5 nodes. Check six!

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The Assault 88S is looking for game players! Play Trade Wars 2002, an exciting space adventure game. Challenge other fighters in The Pit. Go head-to-head in Chess. Play golf or bowling and challenge other players for the best casino score (yes, we have an on-line casino!). New games are always being added. Call (703) 490-8304 at 2400 8aud. Shaun McDonald SYSOP. We need you now!

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The Impress BBS at (918) 437-3754 has the latest Apogee, id, Software Creation and Epic MegaGames. We support 2400 to 14,400 8aud modems. FX/Term is strongly recommended and can be downloaded when you first log on.

Hey, Southern California, check out the Techno Surfing 88S! We have six phone lines available. There are tournaments scheduled for War in Russia, CHQ, Conquered Kingdoms, War in the Pacific, Air Warrior, Falcon F-16, MiG-29 and others, plus a games hint information section, game forums and multi-player 88S games. Check out our large shareware and GIF library and our fantastic new online viewer section. We support 1200 to 38,400 8aud and offer a free trial period. Call (818) 769-0691.

Modem Gamers Forum 88S. Home of the Game Matcher Door for finding head-to-head gamers like you. A message area devoted to every modem-capable game known to mankind. Find opponents for games like 688 Attack Sub, Seawolf, F-29, Knights of the Sky, The Perfect General, Command HQ, Populous, Powermonger, Tom Landry Football, MechWarrior II, etc. Tournaments, hints, tips, and strategy articles available, along with patch files and updates for your modem gaming software. Two versions of TW2002 on-line (one exploiting the software bugs, one cleaned up game)! Mention CGW for long distance validation. Seeking Amiga, Mac and Atari users to form an even larger opponents base. Running Renegade 88S 7-17 software. Sysop, King Crumb — Babylon, NY (516) 893-4120, 14.4k 8-N-1, 24 hours.

If you are looking for the best military PC flight simulators coverage, then you must check out SimNet based in the San Francisco Bay area. This new network is expanding nationwide currently with 20 88S systems around the country and still growing. SimNet is originating from the Trade Center BBS (SimNet Headquarters). Call (415) 340-0197. There are four nodes, 2400 to 28,800 baud, 24 hours per day. Full access on your first call, no fees. SysOp Gabe "Joker" Turk. Modem opponents wanted section online. Over 1.2 Gigs of files, including instant support from ThrustMaster, Inc.

The Dakota Central Tefenet 88S in Carrington, ND (58421) is a 88S with many challenging on-line games and over 30,000 files available to download free of charge. On-line games include the massive Land of Devastation post-nuclear war RPG with an available EGA graphic user interface, plus you can battle other traders and aliens in TradeWars 2002 (tournaments start frequently). Explore with your character in the combat-happy RPG Wizard's Arena, and make big booms with others like Nuke War and Naval Battle. Trivia and card games are also on-line. Huge games file area. Free access, with a small fee for total access. 3 nodes, 300-14,400 Baud, 8-N-1. Call (701) 674-8115, 24 hours a day, 7 days a week.

Call Little Caesar's Nightclub at (416) 238-8238. All wargamers should check out message base #13 for discussions on computer wargaming. Find an opponent or leave a review. All computer platforms welcome.

The Elfspire Tome is a Fantasy Role-Playing Game Master's resource bulletin board. We feature role-playing echoes, on-line games, fantasy clip art and much more. 1200-9600 8aud. (415) 595-2387.

The Delphic Oracle is an all-gaming 88S. PlayRPGs (AD&D, GURPS), play-by-e-mail games (Diplomacy, ASL), Empires at War (a Napoleonic on-line game) and other games on-line. Find modem game players. Gamemasters and players wanted. Simi Valley, California (805) 582-9004 [2400 8-N-1]. Free access.

GAMERS BY AREA CODE

Stamford, CT Space Marine seeking local cooperative or deathmatch play for Doom. Call me at home, (203) 322-7472.

Opponents wanted for modem/null modem gaming in Alabama. Call Roger at H-(205) 233-8482 or contact me on America On-Line at [Cmdr Foster].

Local opponents wanted for modem games: Falcon, Empire Deluxe, Perfect General, Command HQ, IndyCar Racing, etc. Call Joe in Lewisville, TX at H-(214) 317-8526 or FAX (214) 317-7937.

Seeking local opponents for modem gaming. Falcon 3.0, Hornet, MiG-29. Call me in the Denver, CO area at H-(303) 782-5213. Ask for Fred between 7-9pm.

Seeking modem gamers in the Omaha area for F-15 III, 688, Seawolf, and 1942 Pacific Air War. Call Greg Seewald at H-(402) 597-2837.

Looking for any opponents for any modem game in the Tiffin, Ohio area. I play The Perfect General, Global Conquest, VGA Planets, Command HQ, etc. Contact Fred Stevens at H-(419) 448-7331.

Portland, OR wargaming nut seeks other like minded nuts to play The Perfect General, Empire Deluxe, Command HQ, Seawolf or just about any other play-by-modem game available. Hoping to set up a seven-player P8EM of FTF game of Third Reich within the next two months. Any interested players contact Jeffrey at H-(503) 659-4019 or by email via the InterNet at: jeffrey@teleport.com.

Central (Acton) Mass. gamer is looking for local opponents to play F-15 III, Perfect General, Falcon 3, etc. Contact Jason Cameron at H-(508) 263-6134.

Looking for a local opponent for head-to-head or modem gaming Amiga or 18M clone. Your game or mine. Call H-(516) 758-7823. Ask for Nick. I'm in Patchoque, NY.

Searching for local opponents to do battle in playing Seawolf, Ooom, Command HQ, 688 Attack Sub, Falcon 3.0 or any other games by modem. Call David in the Vancouver/lower mainland area anytime at H-(604) 264-7998 and let the games begin!

Modem player wanted in San Diego area, Seawolf, World Circuit, IndyCar, or other. Call Gary at H-(619) 579-6575.

I seek wargamers for play-by-mail Pacific War, Second Front and play-by-modem Battles of Destiny plus Empire Deluxe. Will consider any other wargame, too. Contact Chuck Frye at H-(803) 546-1543. I'm in Georgetown, SC.

Looking for modem opponents at 2400 baud for The Perfect General, World Circuit and Seawolf. Call Tim Berry in Arlington, TX at H-(817) 861-1100.

THE NETWORKS

The following are voice contact numbers for many of the various on-line network services that connect gamers. Call them for more information.

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GEnie: (800) 638-9636
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Call 1-800-336-9096.

Write to us on the Internet: info@nvn.com

Circle Reader Service #95

Xargon and Helium: The Elements Of Shareware

by Chuck Miller

I CONSTANTLY LURK ON-LINE IN SEARCH OF NEW SHAREWARE MEAT TO THROW AT CGW'S EDITORIAL BLOODHOUNDS, AND while doing so recently I came across a couple of juicy titles with impressive numbers of downloads from shareware fans. XARGON. BEYOND REALITY from **Epic MegaGames** is the first part of an action adventure trilogy similar to their JILL OF THE JUNGLE series. HELIOUS, the first of two parts by **Albino Frog Software**, is a strategy game that's a real gas to play. Both of these games have been around for a while, but that just adds to the seasoning for gamers who haven't had a taste of them yet.

ARCHAEOLOGY 101

Meet Malvineous Havershim, an archaeologist of the Indy Jones flavor, on a dig in the forests of Madagascar. Here he discovers the ruins of the Blue Builders, named after the magnificent blue structures they left behind. While inspecting some mysterious writings to understand their language, Malvineous accidentally triggers the release of a noxious green gas (no, not Helious). He soon goes under, and the last thing he can remember is a great brown eagle. When he comes to, Malvineous finds himself in a bizarre, evil world, Xargon, named for its malevolent overlord.

Your job is to help Malvineous locate and destroy Xargon's main reactor. That means first, staying alive, and second, scooping up all the gold, gems and bonuses Malvineous can carry. The larger goal of the trilogy is to acquire the three power objects necessary to defeat Xargon and go home. This can take some time as the mazes of Xargon are huge, and they are teeming with foul-tempered creatures hankering for a niblet of your giblets: two-legged grunts, giant trolls, zombie lizards, enormous spiders, purple hoppers, robots and other zomboids of similarly nasty temperament. Not that the general environment is good for raising a family. There are enough acid pools, spikes and spears, rolling rocks, and mechanical mashers to ruin even a good pair of boots. Fortunately, Malvineous does have a few ways of dealing with slathering critters, like a laser, fire balls and even a few rocks when the going gets tough.

XARGON employs a dual-mode interface. You travel through Xargon in the Map Mode, a top-down perspective on the world which allows Malvineous to move around. You can save in this mode, and indeed you'd be foolish not to. When our hero reaches a new location, he swings into action, and the game moves to a side-scrolling perspective. During these scrolling arcade sections of the game (the great majority of play), you can't save. If Malvineous dies here, he is returned to the beginning of that level. While this does not count against your scoring, and Malvineous has unlimited lives, it does require that you monitor his health. Thankfully, some special items are placed in the more difficult locations to aid you in your efforts.

SPIDER FIGHTER The Caves of Xargon are no place for those with arachnophobia or fear of malevolent zomboids.

XARGON is an attractive, high energy game which took over three years to produce. Even the music and sound effects are professional enough to add to the experience. Graphics are well designed, drawn, and animated with no complaints save a move to high resolution (the current industry trend). Overall, the game surpasses the level of JILL OF THE JUNGLE, a popular and respected title in its own right.

If you enjoyed JILL OF THE JUNGLE, and other games like BIO MENACE and DUKE NUKEM, you should check out XARGON. Registration is $30, plus $4 shipping and handling, which gives you the next two volumes in the trilogy, THE SECRET CHAMBER and XARGON'S FURY. The former bids you to locate a special chamber and recover a magical lyre, while the latter initiates a confrontation with the vile Xargon himself. The game requires a 386 processor or better and VGA graphics.

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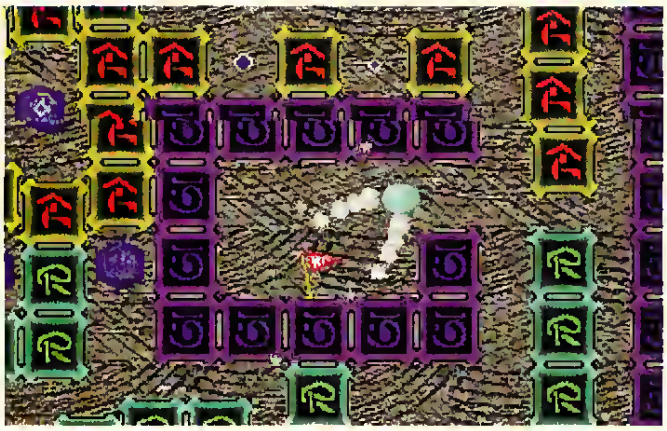
A GASEOUS RELEASE

HELIOUS is a strategy game that requires as light a touch as the gas it's named after. It doesn't take a doctorate in physics to understand the concept: guide a gas-filled balloon from one end of a maze to the other while collecting all the blue gems and avoiding all the sharp objects in between. Sounds easy, right? Okay, smarty, see how many levels you get through. The shareware version of HELIOUS has nine levels varying in difficulty from "Okay, that's simple enough" to "You've got to be kidding!" Nine more levels come with registration, but the nine shareware levels will keep you popping for some time.



GAS ATTACK Leaving a trail of vapor in the mazes of Helious.

As Bernoulli may have said, there's more to this gas than meets the eye. When you move the balloon with the arrow keys or joystick, a blast of gas propels it in that direction. In doing so, you're using up some of the precious gas necessary to maneuver through the maze. Run out of gas and it's "game over, man." Likewise if you hit a sharp object. This is where a light touch comes in handy. Release that gas oh so carefully, and try to use momentum by bouncing off walls. Try not to brake unless absolutely necessary.

Now just to spice things up a bit, how about some weapons? Collecting different color gems (other than blue) enables offensive measures against darts and other dangerous obstacles. When a yellow diamond or red circle appear in the center of the balloon, you're the baddest balloon on the block. During this time you can also tackle the nine levels in any order you like. As a general guideline, work clockwise on the levels and avoid pointy objects. Otherwise, hit or shoot it. But the rest I'll leave for you to discover.

HELIOUS is no vaporware, it's a lot of fun for $12 ($10 plus $2 shipping and handling). Any graphics card will work, but a 386 system or better is required.

To order, contact: Albino Frog Software, Post Office Drawer 5822, Hollywood FL 33083-5822. Please send your payment in U.S. funds, check or money order only.

ZiffNET

To locate these games on-line, tune in to the *CGW* headquarters on ZiffNet. These games can be downloaded from ZiffNet both on CompuServe and on PRODIGY. On CompuServe, go to *Computer Gaming World*'s own forum (GO GAMEWORLD), Library 7, Shareware Sizzle. On PRODIGY, jump ZiffNet and Search by Title for the games listed here, or Search by Category to browse the entire Games Library.

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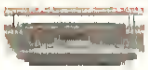

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The Wizard of Voxels

To kick off his new column about the people and technologies behind the magic of computer games, Paul Schuytema talked to programmer Kyle Freeman about how he turned pictures of the brain into computer graphics that dazzle the mind.

by Paul C. Schuytema

AFTER PROBING THE DARKEST SECRETS OF THE HUMAN BRAIN, AFTER CREATING THE HARDWARE and software that makes a three-dimensional CAT-scan come alive, what comes next? If you're Kyle Freeman, it's time to fly a helicopter.

Freeman, an electrical engineer by trade, is **NovaLogic**'s whiz-kid of Voxel Space technology and, as a result, was the key programmer in the creation of COMANCHE: MAXIMUM OVERKILL. Prior to trying his hand at game design, he developed medical imaging technologies, using voxel graphics to represent the human brain right down to the electromagnetic contents of the cerebral cortex. Why, then, leave the brain for game design? The challenge was gone. And for Freeman, who started programming games in college, no other genre of computer applications seemed more challenging.

Taking the knowledge he garnered from the medical technology field, he set out to make a visceral, movement-based game featuring realistic, rolling terrain. In an advanced CAT-scan, each view is preprogrammed and each frame may take up to 10 minutes to render on a micro computer. How, then, could Freeman take this technology and create a real-time voxel imaging system using only a 386? "Simple," he says. "It's all in the challenge."

FREEMAN AS FLYER Kyle Freeman creates worlds that are so filled with realistic imagery, he can't resist the temptation to fly around in them himself.

PUMP UP THE VOLUME PIXEL

To understand how these two seemingly disparate fields are related, you need to know a little about voxel graphics. The term "voxel" is formed from the collision of two other words, "volume" and "pixel." In the traditional two-dimensional world of PC bit-mapped graphics, a pixel is a finite graphical unit, occupying space and containing information such as color and luminosity. A voxel is a similar unit, but it exists in a three dimensional world and has the potential to contain much more information. In a CAT-scan, for instance, a voxel may contain color information, brain activity information, and radiation information. In a voxel taken out of COMANCHE, there is the density of the solid (water is less dense than rock), the color, the reflectivity, the angle towards the light source, and so on.

In traditional flight simulators, the three dimensional world is modeled in polygons, with the world-data consisting of shape and position information. In a voxel world, the information stored is not all that different, but instead of discrete polygons, a voxel world is made up of thousands upon thousands of small voxel units.

Freeman really didn't approach the COMANCHE project with the intention of redefining PC graphics. He simply tackled the task using the tools with which he was familiar. In his medical imaging work, all of the rotations and manipulation of voxel images were predetermined. Freeman wanted to break that barrier to display voxel graphics in real time. Basically, he began the project from the top and worked down. Using his 386 machine, he began working with true photorealistic images, and gradually manipulated and compromised the image quality until he had reached the real time mark he was shooting for.

Listening to Freeman discuss the process, I couldn't help thinking that this was far too easy for him, like breathing, or perhaps the more complicated task of tying a shoe. As we talked further, I learned more about the nuts and bolts Freeman had to manipulate to make his vision become a reality.

He programs exclusively in 32-bit native mode, meaning that he uses assembly lan-

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WINTER WONDERLAND Choppers in COMMANCHE operate in a variety of conditions, just as their real-life counterparts.

guage, even bypassing the computer's floating point unit ("it just takes too long for the information to go to and return from a math coprocessor," he told me). When he began the project, there was virtually nothing written for the 386 or 486 that used the native mode. The standard was 16-bit programming. Freeman had to write his own DOS extender and his own development environment, learning by trial and error since the documentation for programming 32-bit native mode hadn't yet been written. Writing in assembly language, Freeman was able to create graphic routines that operated from 100 to 1000 times faster than those created by the C programming language.

This low-level hacking gave Freeman the tools he needed to create his organic, voxel world. But how did he create the realistic rolling terrain and dramatic crevasses? He tried creating worlds in a 3-D modeling package, but found that even with detail levels set at the 5-6 million polygon range, he still wasn't reaching the level of perfection he craved. So, using programs of his own creation, Freeman sculpted the terrain, pushing the shapes around and molding the landscape as if it were clay.

After putting together a terrain map, he still felt that it looked too soft, too artificial. The natural hacker then crafted a few program routines that would morph his voxel worlds, simulating a few million years of erosion, a few seismic disasters, and the constant pummeling by the weather. Each voxel of terrain contains information about the density of each unit, for the rocks, the soil types, the water, etc. Directing his erosion algorithms to take into account the varying density of the material is one of the ways in which he was able to create such realistic landscapes.

VOXELS TAKE FLIGHT

Oddly enough, it wasn't until the final weeks of the project that COMANCHE became a helicopter simulator. Before then, it was merely a real-time terrain modeling system. As Freeman worked to bring his terrain system together with the flight-model of the RA-66 Comanche, he decided to make the program expandable. Partly because of time constraints, partly because of a desire to leave the game open-ended, he left hooks and ports of access into his tightly optimized code.

With the release of the OVER THE EDGE expansion disk, Freeman has finally taken COMANCHE as far as he wanted it to go. Effects such as reflection and haze were not added to the earlier missions, because the information in the terrain voxels would have to be re-written. Freeman thinks that's just fine, though. He likes the

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integrity of the early missions, and the fact that a pilot can land the chopper on the water doesn't phase him. Instead, he thinks of the water in the earlier missions as shallow, stagnant pools. Like any true programmer, he has turned a program limitation into a "feature."

As I was listening to Freeman discuss the sheer number of calculations involved in one frame of on-the-fly animation, calculating up to a million data points and displaying nearly 100,000 surface variations per screen, I wondered just how data-intensive the terrain information is in COMANCHE, but the exact voxel space scheme which makes this possible is part of the company's proprietary process which makes this voxel technology possible and, with a patent pending, the company is naturally reticent to release specific information.

As each frame in COMANCHE is being rendered, the computer recreates the terrain from the building-block voxels in the terrain database. In Voxel Space, the terrain is not merely surface data, but the voxels exist even below the surface, filling out the entire solid. As a frame is calculated, the opaque building blocks are assembled and basic calculations are performed, such as calculating the player's viewing angle and relating that information to the angle the voxel has to the dominant light source, thereby arriving at the radiosity of a particular part of the image. When calculating reflections off the surface of lakes and rivers, the graphics engine takes into account the angle or strength of the light source, and how much of the surface image is projected over the water. Then through a creative use of colorizing algorithms, the program blends the color information of the reflected image with that of the water to achieve an appropriately muted mirror image.

VOXEL VISTAS Combining measurements of light sources with clever colorizing algorithms creates wisps of cloud cover and rippled reflections in the lake.

BUY A VOXEL

Freeman takes pride in his programming, paying careful, almost maniacal, attention to details. He is proud of his work on COMANCHE, and he feels that it allows the players to explore truly realistic terrain. When asked why the graphics seem so different than the other simulators on the market, Freeman remarked, "There's a lot more craft in it."

So what future wizardry can we expect from Kyle Freeman? He sheepishly told me that that particular information was classified for the time being. He did give me a hint, though, saying that it would be completely photorealistic and in real time. "On a PC?", I asked. "Sure, no problem," was the reply.

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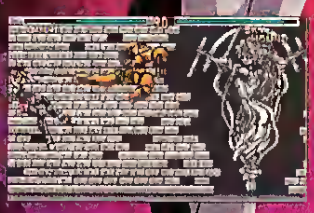

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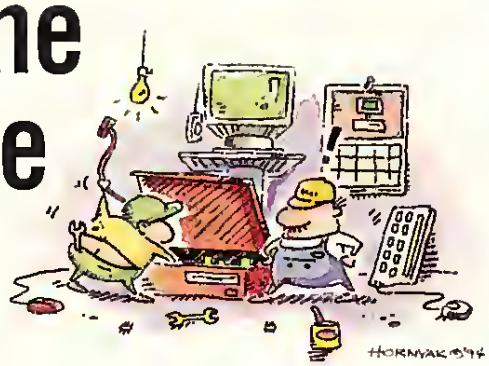

CGW's Technical Editor visits Chicago in Seattle and hangs out with several "scuzzy" peripherals.

by Mike Weksler

Like Icarus, do you find your silicon wings melting as you fly too close to the multimedia sun? Here's the place for technically troubled heroes like yourself to find the aid you need. If there's an answer to your technical dilemma, you'll find it here.

THE WILD WILD WORLD OF WINDOWS

I just read about Windows 4.0 (Chicago) in *PC Computing* magazine. To be honest, I'm a little panicked! Running games in Windows? Am I wrong, or does Windows throw off timing in most games? And since 4.0 will be an operating system, we won't be able to exit to DOS to run our games, will we?

Basically, what does Windows 4.0 hold for us game junkies?

Mark Fossen, CompuServe user

OK. First, Windows 3.1 is run as an add-on for DOS. It's 16-bit, kludgy and slow. Chicago will be a complete operating system and will use WinG, a 32-bit graphics Dynamic Link Library (DLL) which approaches DOS speed in terms of game performance. Additionally, the operating system will have support for joysticks, networks and modems. You will not have DOS on your system (no more CONFIG.SYS and AUTOEXEC.BAT), but you will be able to run DOS in a "box" within Chicago. Games can run right from the command line with 600K+ available.

How will this affect next generation games? First, game developers can spend more time writing games and not drivers (hardware vendors will do the driver part), and conform to some kind of standard for installation. This is all very welcome in an industry that can't standardize a box label let alone software drivers.

Developers at Microsoft have told me that you won't be able to "dual boot" between DOS and Chicago in the manner that you can with Windows NT.

The full potential of Chicago won't be realized until there are 32-bit games that have been written to run under Chicago in native mode. To this end, WinG is the key. This 32-bit DLL will allow game developers to write graphics routines for Chicago and 3.1 (in 16-bit) that are comparable to DOS graphic performance. I was quite skeptical until I saw and played DOOM in Windows on a 486DX2/66 at the Computer Game Developers Conference. The screen was even scalable: I could stretch the window to 640x480 and then render the game to fit the screen. The result is high res DOOM. Too cool. (For more news about Chicago, see READ.ME next month).

TWO WILD AND CRAZY SPACE MARINES

Is there some bug in DOOM version 1.2 that makes your character wildly run around and shoot? This annoying "problem" has no pattern. Is this a bug and, if it is, is there a fix to this?

Dale Ghent, Middletown, MD

The way I play DOOM, I wouldn't really notice<g>. Seriously, the "feature" you mention is a bug identified by id Software and should be fixed in version 1.4. The patch will also include fixes for Gravis UltraSound problems. Look for it on a BBS in June.

A TALE OF TWO SCSIS

I recently purchased a Media Vision multimedia upgrade kit that came with a SCSI CD-ROM drive and a SCSI CD host on the sound card. I already have an Adaptec SCSI host running my Maxtor SCSI hard drive. Should I 1) disable the SCSI adapter on the sound card and run everything on my Adaptec SCSI host, 2) hook up my CD-ROM to my sound card and leave my hard drive on the other Adaptec SCSI host, or 3) should I run everything from my sound card and remove my Adaptec SCSI host from my machine? Can you have two SCSI chains running in the same computer?

Jerry Lambright, West Covina, CA

At first glance, I would recommend disabling the SCSI host on the sound card and slinging your new CD-ROM drive onto the Adaptec. You will most likely need a new ribbon cable designed for two peripherals to accomplish this. The disadvantage of doing this is that with your Adaptec SCSI host, you need two drivers in your CONFIG.SYS file—ASPI2DOS.SYS and ASPICD.SYS. These are in addition to the MSCDEX.EXE file loaded into the AUTOEXEC.BAT. One nice thing about this setup, despite the added driver overhead, is the ability to have your sound card free to swap in and out with others without worrying about the CD-ROM drive. If you're not willing to do some major memory mambo to get a game running, I would run the SCSI hard drive off of the Adaptec (you can run up to two hard drives without any CONFIG.SYS drivers), and run the CD-ROM off of the Media Vision card which will only use one SYS driver for the CD-ROM. OK, so if you're still with me, you're probably asking "why can't I just hook up my SCSI hard drive and my CD-ROM to my Media Vision SCSI sound card?" Well, the answer is that you can, but since your SCSI sound cards don't have this thing called a "boot ROM," your hard drive will run, but you won't be able to boot your system without a boot disk.

Why don't you share your technical adventures with your fellow CGW readers who may have the same problems? Send your questions to Under The Hood, c/o Computer Gaming World, 130 Chaparral Ct. Suite 260, Anaheim Hills, CA 92808, or Internet email at 76703.622@compuserve.com.

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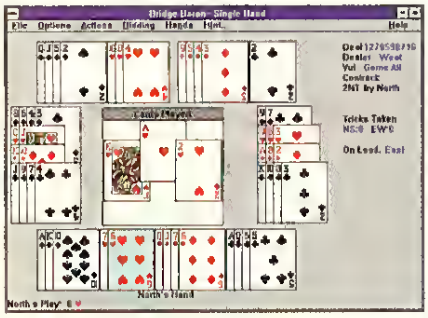
These Just In

"Now Playing" features screenshots and brief descriptions of new products we received just before press time. We offer these descriptions to inform you that these games are on the shelves and to give you our first impressions of them.

BRIDGE BARON FOR WINDOWS

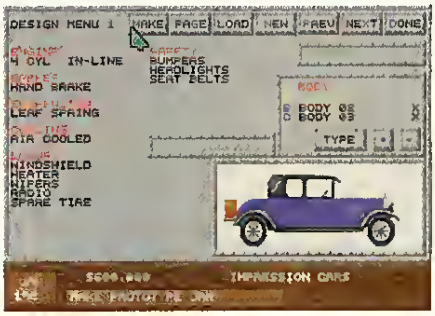
The most competitive computer bridge program just became Windows-compatible. Tom Throop's bridge programs have historically been among the most challenging, but the Alfred Sheinwold commentary and 24 separate bridge problems make this version particularly strong. Most popular bidding conventions are included, along with cumulative match statistics and a host of different match styles to play. As a special plus,



there is a Double Dummy defense for those bridge fanatics who feel that bidding flow charts simply aren't enough. IBM, $49.95. Circle Reader Service #5.
GREAT GAME PRODUCTS, 8804 CHALON DRIVE BETHESDA, MD 20817, (800) 426-3748

DETROIT

Economic empire builders who play computer games to become a RAILROAD TYCOON or make AIR BUCKS, it's time to consider a drive-by looting and make your pile building cars in DETROIT. Spreadsheet warriors will not be phased by the minimal game animations—designing, marketing, building and researching new automotive technologies will be more than enough for them. Anyone who has ever wanted to



spread their production tentacles across the globe, cut wages and benefits in the midst of prosperity, or sack striking workers "just to show them," your managerial tendencies (be they maniacal or benevolent) will certainly emerge as you put the world on wheels. IBM ($69.95). Circle Reader Service #7.
IMPRESSIONS SOFTWARE, INC., 222 THIRD STREET, SUITE 0234, CAMBRIDGE, MA 02142 (203) 676-9002

FORMULA ONE

Spectrum HoloByte and **Domark** are both known for innovations, but this isn't exactly FALCON TOOLKIT meets FORMULA ONE RACING. The 16-page manual gives an idea of the relative depth of the product, as does the box, which is 95% filled with

air. Terrain does fly by rapidly in the game, billed as "The fastest racing game ever." Twelve tracks, ranging from Adelaide to the inevitable Monte Carlo are included, perhaps the most challenging being the woods-surrounded turns of Hockenheim, Germany. Four levels of play build in realism and difficulty, but this game has long been left behind by WORLD CIRCUIT and INDYCAR RACING, so take a long pit stop before deciding on a spin. IBM, $49.95. Circle Reader Service #16.
SPECTRUM HOLOBYTE, 2490 MARINER SQUARE LOOP, ALAMEDA, CA, (510) 522-1164

GUESSWORDS

As multimedia inexorably reaches out, however haltingly, to the masses, parlor games from the collective unconscious emerge on the computer landscape. Billed as "an age-friendly game," GUESSWORDS is

another of those noble attempts to make the computer a family institution. The premise is sound—most people do like trivia games to a degree, and the categories are generic enough, that most everyone will be able to find questions within their ability to answer. The topic/subject screen is reminiscent of a daily planner, and the specific game screens

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look like outtakes from ASTEROIDS backgrounds. For all that, the game does succeed in its quest for a friendly feel, and the ultimate effect is something like ANACROSTICS IN SPACE. If you find the system to your liking, there are four expansion disks, doubtless with more on the way. IBM, $29.95. Circle Reader Service #4.

GIC SOFTWARE, P.O. BOX 1353, LOS GATOS, CA 95031, (408) 356-7208

JACK NICKLAUS SIGNATURE GOLF VOL. 2

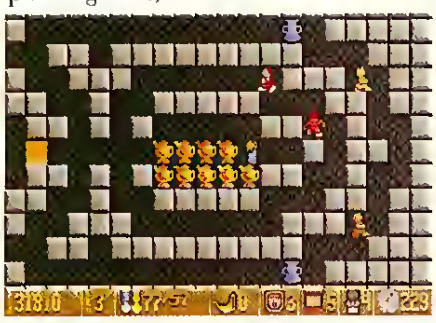
Before you toss away that old putter, this is *not* a new game, but an add-on disk for JN SIGNATURE GOLF. Also, the game still utilizes 2-year old technology, giving rise to the inevitable comparisons with LINKS 386. Still, the focus of this title is less on graphics than gameplay and the subtleties of designing a golf course. The courses

here are built by the winners of an Accolade design contest, and offer an almost dizzying variety of challenges, 36 in all, which despite their fictional status, offer plenty of challenges for the aspiring golfer. IBM, $19.95. Circle Reader Service #2.

ACCOLADE, 5300 STEVENS CREEK BLVD., SAN JOSE, CA 95129, (800) 245-7744

JOSHUA: THE BATTLE OF JERICHO

Hittites, Canaanites and Perizzites, beware! The son of Nun is crossing another Jordan River as this former Nintendo game enters the Land of PC Promise. Focused at younger gamers, JOSHUA is a PAC-MAN-style game where Hittites replace "ghosts," musical notes reminiscent of the biblical account's trumpet (shofar) blowing substitute for power pills, and the collection of iron, brass and shekel takes the place of dot gobbling. As in its ancient predecessor, pattern memorization and fast reflexes are important, but Joshua requires some knowledge of the biblical account, as well. You must collect five questions per level before exiting the screen and answering said questions for extra points. The game includes 100 levels. IBM ($39.95). Circle Reader Service #21.



WISDOM TREE, INC., 2700 IMPERIAL HWY, BLDG. A, BREA, CA 92621, (714) 528-3456

JOURNEY TO THE PLANETS

A visual feast, this CD-ROM product is a tool for exploring the cosmos. Hundreds of digitized photos are enhanced and shaded to produce details that any amateur astronomer could love. Data files abound to whet the appetite of the more

serious student, who may also check to see what Galileo or Percival had to say about the celestial wonders. The designers do make some concessions to fun, as all the views are three-dimensional "fly-throughs," much faster than Newtonian physics would allow---especially when you travel through solid objects! Topped off by a strong musical score and elegant interface, this seems like a product ready to blast off. IBM MPC/Mac $69.95. Circle Reader Service #9.

MULTICOM PUBLISHING, INC., 1100 OLIVE WAY, SUITE 1250, SEATTLE, WA 98101, (800) 850-7272

ORIGAMO

The Chinese call them TANGRAMS, puzzles made from cutting a paper into five different geometrical shapes and assembling them into different figures. The Japanese call it ORIGAMI, the art of folding paper into different geometrical shapes which, in turn, create figures of birds, animals and the like. In ORIGAMO, you have to apply some of the skill of both. Shapes slide along a conveyor belt in real-time and you have to place colorful geometrically-shaped pieces onto more than 100 gray shapes before the conveyor belt becomes clogged with unused pieces. Once completed, the 113 varicolored puzzles look something like mosaics done in an origami style. Add some colorful animation and a maze to explore (as in the quests of SOLITAIRE'S JOURNEY) and you get a picture of what may be an incredibly addicting game for TETRIS and SHANGHAI fanatics alike. IBM ($49.95). Circle Reader Service #10.

QQP, INC., 1046 RIVER AVE., FLEMINGTON, NJ 08822, (908) 788-2799

PEA SHOOTIN' PETE

Many eons past, in the dim beginnings of the Silicon Age, there was created The Plot For All Arcade Games. And the industry, young though it was, did look upon The Plot, and decided that while it was composed of only one note, that note did indeed sound good in their cash registers. Since that long-ago time, many technologies have been discovered, and some Great

Companies have sunk like Atlantis between the waves, but PEA SHOOTIN' PETE is proof that some things never change. In all fairness, the scrolling is good, as Pete shoots his peas against backdrops no Nintendo could emulate. Some of the animations will bring chuckles to even cynical magazine reviewers. Even so, check out the shareware equivalents before you glide across the screen. After all, you certainly know how this plotline will be resolved. IBM, $19.95. Circle Reader Service #19.

VILLA CRESPO SOFTWARE, INC., 1725 MCGOVLRN ST., HIGHLAND PARK, IL 60035, (708) 433-0500

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PGA TOUR GOLF II

Anyone doubting that the computer game industry and Hollywood have a lot in common, need only observe the number of sequels prevalent in each. This version brings undulating fairways and not-so-smooth putting surfaces to the Macintosh. While the graphics will never be mistaken for LINKS, they do significantly improve on the DOS version, with much smoother animation. For the golf fan who wants a

change of pace, this product offers solid competition from computer opponents, as you tee up against the finest in golf, including U. S. Open winner Tom Kite and Player of the Year Fred Couples. In its attempt to be more of a simulation than its competitors, PGA TOUR II includes 10 different ball lies and gusty breezes which would make a meteorologist green with envy. The "accurate ball physics" model is even better. and the varied trajectories for special shots (chips, punches, etc.) have an authentic golf feel to them. Unlike many sequels, this actually adds to the genre—at least for the golfer who doesn't quite have everything. Macintosh, $59.95. Circle Reader Service #3.

ELECTRONIC ARTS, P.O. BOX 7578, SAN MATEO, CA 94403, (415) 571-7171

Each of these Riverboat Card Game Series products features an Old West theme and computer opponents who've walked right out the pages of folklore, pulled up their stakes and put their cards on the table. All are played under Windows (only) and feature ragtime background music. What sets them apart, though, is that they provide power tools for users. Each product contains many, many user-definable game variations and instructional information to help build better playing skills.

RIVERBOAT BLACKJACK

This game boasts over 35,000 Blackjack variations (most, naturally, are slight variations and some, while interesting, are downright obscure). Programmable house rules and a skill-building card counting

system will score points with everyone. IBM for Windows ($29.95). Circle Reader Service #11.

RIVERBOAT CRIBBAGE

This powerful Cribbage program features 2, 3 and 4-player variations with and without Crib auctions. There are several other variations (61 or 121 point games, individual or partnership, etc.) and an in-

teresting (although, perhaps, out-of-place) 1800's Trivia Showdown. IBM for Windows ($29.95). Circle Reader Service #12.

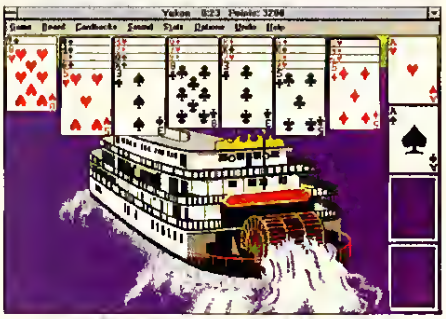
RIVERBOAT POKER

With 45 different poker games to select from, and plenty of definable house rules, this poker game can hold its cards up to the best of them. Note that it features a

full, 8-seat game and player styles that can really vary (getting Geronimo's money is one thing, but taking Jesse James' is another matter entirely), making the action constant and lively. IBM for Windows ($29.95). Circle Reader Service #13.

RIVERBOAT SOLITAIRE

This solitaire package offers plenty of variety in its 75 basic games, each of which has many variations (including number of cards turned over at a time, how many times the deck is gone through, etc.). There are even



some "children's level" solitaire games provided. To round out the package, bar and icon graphs show players' past histories versus "Sol." IBM for Windows ($29.95). Circle Reader Service #14.

SOFTPRIME, 500 KIRTS, TROY, MI 48084, (800) 362-4400

SIM CITY CD-ROM

Sim Citizens of the world, rejoice! Will Wright's masterpiece of urban renewal comes to a CD-ROM theater near you. Your appointed city officials, portrayed by live actors, give full-motion video updates on the state of affairs. News reports feature natural disasters, their terrors enhanced

through special effects, SVGA graphics and thunderous stereo sounds. While the core of Maxis' award-winning game remains intact, the multimedia enhancements make for a more accessible and enjoyable product, especially for that handful of people in the world who haven't yet experienced the joys of running their own metropolis. IBM, $54.95. Circle Reader Service #8.

INTERPLAY PRODUCTIONS, INC., 17922 FITCH AVE., IRVINE, CA 92714, (714) 553-6655

TIGERS ON THE PROWL

Scott Hamilton bills his company as "The Wargamer's Computer Company," and with this release, it's easy to see the wisdom of that *nom de guerre*. WWII small-unit combat is simulated with almost excruciating detail, right down to individual guns and rounds of

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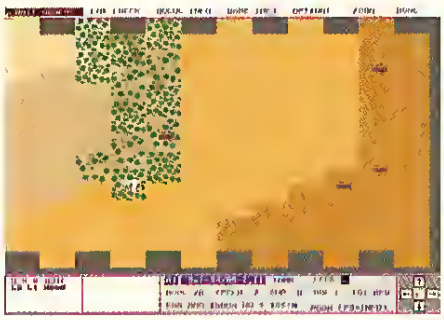
ammo. Combat results are based on physical models, including armor thickness and angle, dispersion of infantry units, fragmentation effects, and even the differences in projectile velocity caused by air drag! Boardgamers will love the computer's capaci-

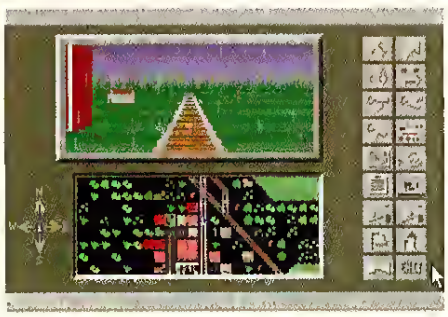


ty for figuring line-of-sight for them, as well as the hidden movement of enemy units. The many options involve night fighting, tactical air strikes, laying minefields and tracing enemy units by the dust trails their vehicles leave. You may deploy such exotic weaponry as flamethrowers, but be careful—the program also checks for fires spreading from forest to nearby towns. Actually, there doesn't seem much that this comprehensive product *doesn't* simulate, as it rightfully models such "soft" factors as morale and training. While the graphic look cannot compare to games from larger companies, die-hard wargamers probably won't want to retreat. IBM $69.95. Circle Reader Service #6.

HPS Simulations, P.O. Box 3245 Santa Clara, CA 95055, (408) 554-8381

TRAIN ENGINEER

The point of view in Train Engineer is exactly what you would expect. Aimed at the model railroading enthusiast, this intriguing product allows you to design scenery-rich layouts and operate your train across that same custom trackage from the perspective of a railroad engineer. In gen-



eral, the graphics lack polish, but certain screens showing the overall layout of the track have an almost "SimTrain" kind of feel that could be satisfying to all of us who have wanted to be able to "enter" the miniature realms of our model railroads. IBM, $54.95. Circle Reader Service #1.

Abracadata, P.O. Box 2440, Eugene, OR 97402 (503) 683-1925

ULTIMATE DOMAIN

Although released through the company that brought fame to Chessmaster, the first clue that this game is of a different breed is that it was designed by mysterious beings called **Microids.** Billed as a medieval adventure, it won't be mistaken for Merchant Prince. Visually, the game is Salvadore Dali painting the Renaissance in 3-D, by way of a Populous interface. Skulls, knives, bombs and a variety of other moody accoutrements mix nicely with the heavy rain and snow effects, to make it easy to believe that the seasons are in fact changing. Aside from all the pyrotechnics, the game has plenty of strategy, with most of the decisions you make being linked to economics in some fashion. Adventure-

game features are also added, as each player must search for the Lost Jewels of Neort. Evidently, building a society, engaging in trade, struggling against nature and fighting wars isn't enough to sustain interest. IBM, $59.95. Circle Reader Service #15.

The Software Toolworks, 60 Leveroni Ct. Novato, CA 94949, (800) 234-3088

VR BASIC

More of a variation on a theme than an original product, VR Basic puts an innovative twist on the 3D world-building genre of products such as Domark's Virtual Reality Toolkit. Instead of an intimidating front end with buttons on-top of buttons, VR Basic is an actual programming language. Code is cut and pasted from examples, or created from scratch using the provided text editor and subsequently run in the graphics viewer. Using an intrepeter instead of a compiler, the program does not yield self-running programs, yet still has nearly 60 powerful high-level functions for you to create virtual worlds of your dreams—or nightmares, using Northicad. Or, simply utilize the library of ready-to-run objects, which range from simple geo-

metrical shapes to a complex polygonal aircraft. All else pales, however, when putting on the cool 3D viewing glasses, whose red-green lenses transform your creations into modern versions of '50s era horror flicks. Don't forget the popcorn IBM, $49.95. Circle Reader Service #20.

Waite Group Press, 200 Tamal Plaza, Corte Madera, CA 94925, (800) 368-9369

WARLORDS II SCENARIO BUILDER

Updates are always welcome, especially when they include 24 ready-made scenarios. The detailed fantasy wargame creation of Roger Keating and Ian Trout now comes alive with new lands and battlegrounds made from the depths of your imagination (and the trusty editor enclosed). The more seriously inclined may create legions of mythical beasts with the ability to devour heroes—then again, I had fun arming Boy Scouts with scimitars. Gameplay adjustments, such as limiting the razing of cities, are at your discretion. Modifying terrain, dropping in cities and other features, and smoothing and editing the terrain are all explained effectively in the manual. The rough figures you create are transformed

on the screen into real characters which take on a life of their own. The amazing thing is that this product succeeds even though it lets you look behind the curtain of one of the most engaging game systems on the market. IBM, $39.95. Circle Reader Service #17.

Strategic Studies Group Inc., P.O. Box 261, Drummoyne, NSW 2047, Australia (904) 469-8880

THE SCORE

Welcome to the Cooperstown of Computer Games. Here, raised upon pedestals, you'll find the games that broke the records, established the benchmarks, and held gamers in delighted trances for hours untold.

CGW HALL OF FAME

The Bard's Tale (Electronic Arts, 1985)
Battle Chess (Interplay Productions, Inc., 1988)
Chessmaster (The Software Toolworks, 1986)
Civilization (MicroProse, Inc., 1991)
Dungeon Master (FTL Software, 1987)
Earl Weaver Baseball (Electronic Arts, 1986)
Empire (Interstel, 1978)
F-19 Stealth Fighter (MicroProse, Inc., 1988)
Gettysburg: The Turning Point (SSI, 1986)
Gunship (MicroProse, Inc., 1989)
Harpoon (Three-Sixty Pacific, 1989)
Kampfgruppe (Strategic Simulations, Inc., 1985)
King's Quest V (Sierra On-Line, Inc., 1990)
M-1 Tank Platoon (MicroProse, Inc., 1989)
Mech Brigade (Strategic Simulations, Inc., 1985)
Might & Magic (New World Computing, 1986)
M.U.L.E. (Electronic Arts, 1983)
Pirates (MicroProse, Inc., 1987)
Railroad Tycoon (MicroProse, Inc., 1990)
Red Baron (Dynamix, 1990)
SimCity (Maxis, 1987)
Starflight (Electronic Arts, 1986)
The Secret of Monkey Island (LucasArts, 1990)
Their Finest Hour (LucasArts, 1989)
Ultima III (Origin Systems, Inc., 1983)
Ultima IV (Origin Systems, Inc., 1985)
Ultima VI (Origin Systems, Inc., 1990)
War in Russia (Strategic Simulations, Inc., 1984)
Wasteland (Interplay Productions, Inc., 1986)
Wing Commander (Origin Systems, Inc., 1991)
Wizardry (Sir-Tech Software, 1981)
Zork (Infocom, 1981)

H.O.F. Highlights

ZORK
INFOCOM, 1981
MANY FORMATS

Inspired by the famous "Adventure" game by Crowther and Woods that had proliferated on mainframes everywhere, the M.I.T. graduates who founded Infocom uncovered The Great Underground Empire of Zork and first brought it to a home computer in 1981. With this fabulous adventure as its cornerstone, Infocom established a rich genre of text games where the "graphics" were painted in the mind, not the computer screen. The classic Infocom games became the benchmarks for puzzle-driven adventure games, and the lavish touches of zany humor provided just enough comic relief whenever the gamer felt most frustrated. ZIL (Zork Interactive Language), the DEC-based development tools with which Infocom games were built, was remarkable for its cross-platform capability and, as a result, Infocom was able to publish their games on more unique platforms than any contemporary game company. Although the text interface was often clumsy, the prose was certainly not; in fact, we're still waiting for a game to match the writing quality and story-telling power of these games.

THE BARD'S TALE
ELECTRONIC ARTS, 1985
MANY FORMATS

The Bard's Tale, designed by the fledgling group called Interplay, excelled within the role-playing standards of its day. Michael Cranford's original story was relatively simple, but it was enhanced with a host of innovations. It established the state-of-the-art for animated monsters, using three-point animation (three active, randomly moving points in each portrait window) and 3D mazes (all in color, with different bit-mapped textures to be added in later releases). The look and feel of the series became the pinnacle for subsequent games to reach. Later, **The Bard's Tale III** was one of the earliest games with automapping, another gaming innovation that became widely used. How did we ever play without it?

THE SCORE

TOP ADVENTURE GAMES

	GAME	COMPANY	SCORE
1	Day of the Tentacle	LucasArts	10.03
2	Monkey Island 2: Le Chuck's Revenge	LucasArts	9.91
3	Indiana Jones: Fate of Atlantis	LucasArts	9.79
4	Gabriel Knight	Sierra	9.64
5	Quest for Glory III	Sierra	9.56
6	Sherlock Holmes CD 1	Viacom	9.55
7	Sam & Max Hit The Road	LucasArts	9.34
8	Star Control II	Accolade	9.33
9	The Seventh Guest	Virgin	9.32
10	Lost Files of Sherlock Holmes	Electronic Arts	9.20

TOP ROLE PLAYING GAMES

	GAME	COMPANY	SCORE
1	Ultima Underworld	Origin	10.22
2	Betrayal at Krondor	Dynamix	9.63
3	Lands of Lore	Virgin	9.44
4	Ultima Underworld II	Origin	9.42
5	Might & Magic III	New World Computing	9.41
6	Might & Magic: Darkside of Xeen	New World Computing	9.37
7	Eye of the Beholder II	SSI	9.34
8	Might & Magic: Clouds of Xeen	New World Computing	9.34
9	Ultima VII	Origin	9.25
10	Arena: The Elder Scrolls	Bethesda	9.19

TOP SIMULATION GAMES

	GAME	COMPANY	SCORE
1	X-Wing	LucasArts	9.65
2	Falcon 3.0	Spectrum HoloByte	9.59
3	Hornet	Spectrum Holobyte	9.47
4	World Circuit	MicroProse	9.44
5	Aces of the Pacific	Dynamix	9.38
6	Indy Car Racing	Virgin/Papyrus	9.33
7	Fleet Defender	MicroProse	9.27
8	Comanche: Maximum Overkill	NovaLogic	9.27
9	Secret Weapons of the Luftwaffe	LucasArts	9.19
10	Stunt Island	Disney	9.00

TOP STRATEGY GAMES

	GAME	COMPANY	SCORE
1	Master of Orion	MicroProse	10.35
2	Sim City 2000	Maxis	10.01
3	Solitaire's Journey	QQP	9.97
4	Dune II	Virgin	9.87
5	Merchant Prince	QQP	9.62
6	Chessmaster 3000	Software Toolworks	9.32
7	Syndicate	Electronic Arts	9.21
8	Hong Kong Mahjong Pro	Electronic Arts	9.13
9	The Lost Admiral	QQP	9.05
10	The Incredible Machine	Dynamix	8.92

READER POLL #115

TOP 100 GAMES

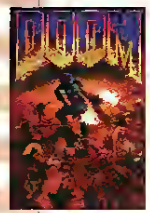
	GAME	COMPANY	TYPE	SCORE
⚔1	Doom	Id Software	AC	10.46
⚔2	Master of Orion	MicroProse	ST	10.35
⚔3	Links 386 Pro	Access	SP	10.33
⚔4	Ultima Underworld	Origin	RP	10.22
⚔5	Warlords II	SSG	WG	10.07
⚔6	Day of the Tentacle	LucasArts	AD	10.03
7	Sim City 2000	Maxis	ST	10.01
8	Wing Commander II	Origin	AC	10.00
9	Solitaire's Journey	QQP	ST	9.97
10	Monkey Island 2: Le Chuck's Revenge	LucasArts	AD	9.91
11	Dune II	Virgin	ST	9.87
12	Front Page Sports Football Pro	Dynamix	SP	9.82
13	Indiana Jones: Fate of Atlantis	LucasArts	AD	9.79
14	V for Victory: Velikiye Luki	Three-Sixty Pacific	WG	9.73
15	Carriers at War Construction Kit	SSG	WG	9.68
16	The Perfect General	QQP	WG	9.67
⚔17	X-Wing	LucasArts	SI	9.65
18	Gabriel Knight	Sierra	AD	9.64
19	Betrayal at Krondor	Dynamix	RP	9.63
	V for Victory: Utah Beach	Three-Sixty Pacific	WG	9.63
21	Merchant Prince	QQP	ST	9.62
22	Falcon 3.0	Spectrum HoloByte	SI	9.59
23	V for Victory: Market Garden	Three-Sixty Pacific	WG	9.58
24	Quest for Glory III	Sierra	AD,RP	9.56
25	Sherlock Holmes CD 1	Viacom	AD	9.55
	Wolfenstein 3-D	Id Software	AC	9.55
27	Conquered Kingdoms	QQP	WG,ST	9.53
28	War in Russia	SSI	WG	9.49
29	Hornet	Spectrum Holobyte	SI	9.47
30	NHLPA Hockey	Electronic Arts	SP	9.45
31	Lands of Lore	Virgin	RP	9.44
	World Circuit	MicroProse	SI	9.44
33	Ultima Underworld II	Origin	RP	9.42
34	Might & Magic III	New World Computing	RP	9.41
35	Aces of the Pacific	Dynamix	SI	9.38
36	Might & Magic: Darkside of Xeen	New World Computing	RP	9.37
37	Pacific War	SSI	WG	9.34
	Sam & Max Hit The Road	LucasArts	AD	9.34
	Might & Magic: Clouds of Xeen	New World Computing	RP	9.34
	Eye of the Beholder II	SSI	RP	9.34
41	Star Control II	Accolade	AD,AC	9.33
	Indy Car Racing	Virgin/Papyrus	SI	9.33
43	The Seventh Guest	Virgin	AD	9.32
	Chessmaster 3000	Software Toolworks	ST	9.32
45	Comanche: Maximum Overkill	NovaLogic	SI	9.27
	Privateer	Origin	AC	9.27
	Jack Nicklaus Signature Golf	Accolade	SP	9.27
	Fleet Defender	MicroProse	SI	9.27
49	Ultima VII	Origin	RP	9.25
50	V for Victory: Gold Juno Sword	Three-Sixty Pacific	WG	9.24

TOP WARGAMES

	GAME	COMPANY	SCORE
1	Warlords II	SSG	10.07
2	V for Victory: Velikiye Luki	Three-Sixty Pacific	9.73
3	Carriers at War Construction Kit	SSG	9.68
4	The Perfect General	QQP	9.67
5	V for Victory: Utah Beach	Three-Sixty Pacific	9.63
6	V for Victory: Market Garden	Three-Sixty Pacific	9.58
7	Conquered Kingdoms	QQP	9.53
8	War in Russia	SSI	9.49
9	Pacific War	SSI	9.34
10	V for Victory: Gold Juno Sword	Three-Sixty Pacific	9.24

TOP ACTION GAMES

	GAME	COMPANY	SCORE
1	Doom	Id Software	0.46
2	Wing Commander II	Origin	0.00
3	Wollenstein 3-D	Id Software	55
4	Privateer	Origin	27
5	Lemmings	Psygnosis	21
6	Tetris Classic	Spectrum HoloByte	14
7	Oh, No! More Lemmings	Psygnosis	92
8	The Horde	Crystal Dynamics	85
9	Prince of Persia 2	Broderbund	60
10	Out of this World	Interplay	57



TOP SPORTS GAMES

	GAME	COMPANY	SCORE
1	Links 386 Pro	Access	10.33
2	Front Page Sports Football Pro	Dynamix	9.82
3	NHLPA Hockey	Electronic Arts	9.45
4	Jack Nicklaus Signature Golf	Accolade	9.27
5	Mardball III	Accolade	9.16
6	Tony La Russa Baseball II	SSI	8.78
7	NFL Pro League Football	Micro Sports	8.54
8	The Games: Winter Challenge	Accolade	8.50
9	4-D Boxing	Electronic Arts	8.37
10	Wayne Gretzky Hockey III	Bethesda	8.30

The Poll is based on reader survey cards from two issues prior to publication. Data is archived from more than 100 games, so the Top 100 is likely to contain titles which were not listed on the active reader survey card, and the Top 10 lists may contain games which scored below the Top 100. Also, every title listed on the survey card may not appear in the Top 100, either because they did not score high enough or because of an insufficient number of responses on a particular game (usually due to a title's distribution delays or low initial retail penetration).

51	Lemmings	Psygnosis	AC,ST	9.21
	Syndicate	Electronic Arts	ST,AC	9.21
53	Lost Files of Sherlock Holmes	Electronic Arts	AD	9.20
54	Arena: The Elder Scrolls	Bethesda	RP	9.19
	Secret Weapons of the Luftwaffe	LucasArts	SI	9.19
56	King's Quest VI: Heir Today...	Sierra	AD	9.17
57	Mardball III	Accolade	SP	9.16
58	Tetris Classic	Spectrum HoloByte	AC	9.14
59	Nong Kong Mahjong Pro	Electronic Arts	ST	9.13
60	The Castle of Dr. Brain	Sierra	AD	9.11
61	Eye of the Beholder	SSI	RP	9.10
	Wizardry VII: Crusaders of Savant	Sir-Tech	RP	9.10
63	The Dagger of Amon Ra	Sierra	AD	9.09
64	Ultima VII: Part Two Serpent Isle	Origin	RP	9.08
65	Les Manly in; Lost in L.A.	Accolade	AD	9.06
66	Bane of the Cosmic Forge	Sir-Tech	RP	9.05
	Quest for Glory I (VGA)	Sierra	AD,RP	9.05
	The Lost Admiral	QQP	ST	9.05
69	Eric the Unready	Legend	AD	9.04
	Empire Deluxe	New World Computing	WG	9.04
	Conquests of the Longbow	Sierra	AD	9.04
72	Police Quest 3	Sierra	AD	9.01
73	Stunt Island	Disney	SI	9.00
	Battles of Destiny	QQP	WG,ST	9.00
75	Aces Over Europe	Dynamix	SI	8.99
76	Space Quest IV	Sierra	AD	8.98
	Pagan Ultima VIII	Origin	RP,AC	8.98
	Western Front	SSI	WG	8.98
79	Carriers At War	SSG	WG	8.97
80	The Adventures of Willy Beamish	Dynamix	AD	8.96
	Freddy Pharkas Frontier Pharmacist	Sierra	AD	8.96
82	Alone in the Dark	I-Motion	AD	8.95
	Gunship 2000	MicroProse	SI	8.95
84	Clash of Steel	SSI	WG	8.94
85	The Incredible Machine	Dynamix	ST	8.92
	Carriers at War II	SSG	WG	8.92
	F-117A	MicroProse	SI	8.92
	Oh, No! More Lemmings	Psygnosis	AC,ST	8.92
89	The Island of Dr. Brain	Sierra	ST	8.91
90	Chuck Yeager's Air Combat	Electronic Arts	SI	8.87
91	The Horde	Crystal Dynamics	AC,ST	8.85
92	Star Trek: Judgment Rites	Interplay	AD	8.84
93	Indianapolis 500	Electronic Arts	SI	8.83
94	Spellcasting 301: Spring Break	Legend	AD	8.81
95	Rex Nebular	MicroProse	AD	8.80
96	Gateway to the Savage Frontier	SSI	RP	8.79
97	Tony La Russa Baseball II	SSI	SP	8.78
	Populous II	Electronic Arts	ST	8.78
	Hoyle Book of Games, Vol. 3	Sierra	ST	8.78
	High Command	Three-Sixty Pacific	WG	8.78

Games on unnumbered lines have scores equal to the line above. ✱ = Top game of type. Dark Red = New Game, AD = Adventure, RP = Role Playing, SI = Simulation, ST = Strategy, WG = Wargame, AC = Action, SP = Sports

The Computer Gaming World Poll

A MONTHLY SURVEY OF THE READERS OF COMPUTER GAMING WORLD

PATCHES

Computer game programs have grown so massive and the number of hardware configurations has become so huge that incompatibilities and glitches are frustratingly common. Patches for buggy programs have become the fastest fix.

ZiffNet These patches can be downloaded from ZiffNet, both on CompuServe and on Prodigy, except where indicated. On CompuServe, go to Computer Gaming World's own Forum, GO GAMEWORLD, Library 2, The Patch File. To sign up, call (800) 848-8990.

On Prodigy, jump "ZiffNet" and Search by Title for the patches listed here.

Or, Search by Category to browse the entire games library.

These patches can also be downloaded from other on-line services, from software publishers' BBSs, or directly from the publisher. We urge publishers to keep us informed of the latest patches for their games. Red indicates new files.

AEGIS Patch: Eliminates the Electronic Book crash. 4/28/94.

Air Warrior V1.13 Updata: New execute files, fixes several problems. 3/1/94

Arena V1.04 Update: Fixes several map, music, scrolling and magic problems. Provides new hot keys and allows you to sell magic items and delete spells. Particularly helpful for 386 machine users. 3/1/94

Bane al tha Cosmic Forge Patch: Replacement file for players who get a divide overflow when starting the game. 3/23/94

Comanche: Maximum Overkill Updata: Includes several hardware fixes, particularly for the Pentium and Diamond Stealth Pro. Not available on ZiffNet. 1/27/94

CyberRace CD-ROM V1.2 Update: Lowers base memory requirements, fixes save game problems and joystick difficulties. 1/20/94

Diamond Draams Upgrade: Fixes all known bugs, and features greatly improved AI for computer manager strategies. 3/29/94

Falcon 1.02 Mac Upgrade: Fixes sound problems on Mac AVs. 3/20/94

Fleet Defendar V1.2 Upgrada: Latest version of MicroProse flight sim. 5/6/94

Gabliins CD-ROM Patch: Fixes sound card and CD-ROM driver problems. 3/1/94

Tha Horde V1.1 Ravision: Now supports Media Vision Pro Audio sound cards. Fixes lockups on some Sony drives, dead knights who don't disappear after snowball hits, and slows down the end credits. 4/28/94

Hornet Patch: Fixes many bugs and adds new features to Spectrum HoloByte's flight sim. 2/07/94

IndyCar Racing V1.02: Fixes several sound problems, as well as more minor corrections. 3/16/94

IndyCar Racing Patch: Allows use of the Gravis Ultrasound Card. 3/20/94

IndyCar Racing Madam Patch: Cleans up difficulties with modem play, and fixes scrolling menus for steering devices with no y-axis. 4/7/94

Jutland V1.1 Upgrade: Allows non-penetrating shells, adds more graphics, runs smoother, and most significantly, includes time compression. 3/30/94.

Jutland Patch: The game will now recognize different sound card addresses, rather than just the default 220 address. 5/3/94

Lands Ol Lara CD-ROM V1.22 Upgrade: Fixes lockup problems on last machines, allows retrieval of Dawn's key and allows use of Waveblaster/Soundblaster 16 combo. 3/7/94

Lands ol Lora Floppy V1.23 Upgrada: Fixes "Dawn's Key" problem and Pentium lockups when choosing a character. 4/28/94

Legands of Kyrandia V1.3 Upgrada: Solves lockups and corrects phrasing used by the characters. 2/04/94

Links 386 Pro Varsion 1.21: Corrects several major and minor bugs 1/28/94

Lost in Tima CD-Ram Patch: Fixes problems with several CD drives and Sound Blaster-compatible sound cards. 2/09/94

Mastar ol Orian V1.3: Tougher opponents, better play balance, and numerous combat tweaks. 1/06/94

Merchant Prince Update: Newest version of QQP's strategy game. 3/11/94

MicroProse Sound Drivars: New AdLib sound drivers for many older games which had problems running with 486 and Pentium machines. 4/7/94

Mortal Komhat PC Updata: Improves sound card support, fixes crash bugs, and requires less conventional memory. 1/21/94.

Nomad Patch: Gets rid of inventory bug for trade. 3/1/94

Police Quast 4 Patch: Fixes all known problems and speeds up restoration of saved games. Disk version only. 4/5/94

Quast For Glory 4 Patch: Corrects all known bugs. 2/17/94

Rally V1.1 Upgrada: Fixes joystick calibration and other problems. 3/24/94

Ravenloft 1.1 Upgrada: Latest version from SSI, floppy and CD-ROM. 4/29/94

Red Baron Patch: Configuration fix for IBM only. 3/29/94

Seawoll Patch: Allows 16-bit Sound Blaster sound effects and music. 3/30/94

Shanghai II V1.05 Update (Mac): Fixes tournament crash bug. 3/24/94

Sierra SB Patch: 486 users may now use Sound Blaster with Police Quest 3, Space Quest 1 VGA, Leisure Suit Larry 1-5 and Hoyle's 3 games. 4/18/94

SimCity2000 V1.1 Update (Mac): Latest version, it fixes the budget problem, among others. 3/1/94

Subwar 2050 V2.02 Updata: Corrects cursor drift, time and date problem. 4/28/94

Tarminator Rampaga Patch: Allows Pentium users to play the game. 3/8/94

TFX Patch UK V2.0 Upgrade: Fixes bugs; makes UK version equal to USA V 2.0, including several new features, but only works if you downloaded first patch as well. 2/24/94

Tony La Russa Baseball 2 Patch: Fixes stadium lockups 5/3/94

Ultima 8 Patch: Fixes AdLib problem with some machines. 4/15/94

Unnacassary Roughnass Ravision: Changes graphics, avoids lock-ups, and allows use of Sound Blaster. Team stats are actually used, hand-offs work correctly, and players do not vanish when tackling. CD-ROM now loads properly. 3/8/94

Victory At Saa V1.01 Upgrade: Corrects numerous problems with the initial release. 3/14/94

War in Russia V1.1 Upgrade: Adjusts game mechanics and fixes minor bugs. 2/08/94

WW2 Battles Of Tha South Pacific: The latest upgrade for QQP's naval wargame. 3/11/94.

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Circle Reader Service #88

Cub Reporters?

AP/Wide World Photos

by Ernie Ryne Santos

My name is Ernie and...I'm a Cubs fan. There, I've said it. If we were behind by 12 runs in the bottom of the 9th, I'd still be sitting in the bleachers praying for the wind to start blowing out. Like the late songwriter, I want to be buried at Wrigley Field, between games of a doubleheader.

So, it's no wonder that, with the Cubbies in their longest home losing streak in history, I decided to make that pilgrimage down Addison Street to the House that Chicle Built, the sacred breeding ground for "Holy Cow!" in order to provide enough fan support that our announcer would have to commit Harry Carey or something of the sort.

I informed all my usual Chicago sources that I'd be at Wrigley Field in my usual attire: the bag for all seasons that I wear as The Rumor Guy. I entered the main gate, part of the dynamic human wall flowing through the turnstiles. It reminded me of the new TETRIS-style game that **Spectrum-HoloByte** is about to publish. The game was originally called THE WALL in Japan, but it's going to be called BREAKTHROUGH in the U.S. The game starts with a multi-colored "Berlin Wall" and requires you to systematically remove colored blocks until the entire wall is broken down. I call it LITTLE BRICK OUT (in honor of the old Apple II game) requiring strategy instead of reflexes.

I bought a program and nodded to the vendor in a knowing way. He always wrote a hot game rumor on page 13 for me. Instead of smiling, he did a double take and looked at the crowd walking toward the stands. I saw another baghead up in front of me and immediately realized what had happened. The vendor had mistaken the other baghead for me. I grabbed the ordinary program and ran through the crowd like I was in a life-or-death version of a live LODE RUNNER game. "And Jeff Tunnell thinks his new LODE RUNNER: A LEGEND RETURNS will be the ultimate challenge!" I thought, "Wait till his job is on the line and he has to scramble through a capacity crowd at Wrigley!" I admitted to myself that it would probably be an awesome experience on the *computer*, however.

Out of breath, I caught up with the other baghead and got his attention. I offered to pay him double the price of the original program if he would trade programs with me. He did and I turned quickly to page 13. Scribbled across a picture of Ryne Sandberg in black felt pen was a note that said Al Lowe of LEISURE SUIT LARRY fame is currently working on a new series called CAPITOL PUNISHMENT and that the first installment was supposed to be "Bill and Hillary's Whitewater Adventure."

Suddenly, I noticed that there were even more bagheads in the crowd. With horror, I feared that other computer game magazines had reporters dressing up like me in order to steal my rumors. That, I reasoned would be a trick as dirty as your characters may have to pull in DOG EAT DOG, the game of office politics to be published by **Trilobyte**. The game began its design life at **Disney** with something of a '50s romance comic look, but the latest incarnation will have a much slicker look. I finally decided that my paranoia was like something I would expect in a Steve Meretzky game. I remembered that Steve was hard at work on HODGE-IN-PODGE, the first release from new game company **Boffo Games** (in conjunction with **MediaVision**), and, in his honor I quickly dismissed the idea of copycat competition.

I reached the bleachers and, there she was, the source of sources—the most beautiful woman to ever don a Cubs hat. Unfortunately, she was surrounded by a half-dozen bagheads. Worse, she was giving all of them the rumor about FAR SEAS, a computer version of an original *Strategy & Tactics* game based on WWI naval warfare to be published by **Decision Games**, a small boardgame company. I suddenly wished I was in the middle of **Argonaut**'s upcoming CREATURE SHOCK, a new DOOM-like, first-person perspective science fiction shooter to be published in the U.S. by **Virgin**. That way, I could have lasered my way to her side without any opposition.

As it was, I merely pointed toward another spectator and innocently asked, "Is that Bull Durham?" As the bagheads rushed off to get his autograph, I sat down beside her to watch the game and hear her whisper the latest secrets in my ear. She managed to tell me about COMMAND HQ II (working title), being designed for **MicroProse** by Robert E. Lee. She said it would feature 4-way and, *possibly*, network play. Naturally, many of the later improvements to the original game, including a map builder and random map generator, will be included in the new design. She also told me that **Avalon Hill**'s BEYOND SQUAD LEADER has now been bumped to January of '95. I don't know what else she said because that's when the other bagheads discovered the other guy wasn't Leon Durham and headed back to hit me out of the park.

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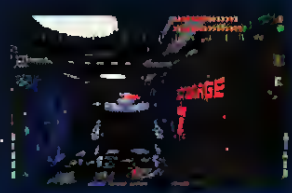

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