
OLD SCHOOL
GAMER
MAGAZINE
WWW.OLDSCHOOLGAMERMAGAZINE.COM
ISSUE #7 • NOVEMBER 2018
FATAL FURY

officially licensed by Atari

PONG® ATARI® Table

tablepongproject.com

- Classic Pong reimagined as a mechanical game
- Stylish coffee table with a built-in clock
- Built-in bluetooth speakers
- Play Pong against an AI or against a friend

To order or get more infomation, please visit:
www.snagagame.com

Email: sales@snagagame.com
Phone: 214.738.4523

SNAG A GAME

UNIS® CALiNFER


MADE IN THE USA!
XTENSION™
Premium Arcade Gaming Equipment
STARTING AT
$349.99!
XTENSION ARCADE
XTENSION PINBALL
HYPERSPIN
ARCADE
ALPHA-CADE
ONLY AVAILABLE AT
800-727-0408
www.recroommasters.com

Publisher
Ryan Burger

Editor
Brian Szarek

Business Manager
Aaron Burger

Design Assistant
Marc Burger

Art Director
Thor Thorvaldson

Editorial Consultant
Dan Walsh

Editorial Board
Dan Loosen
Doc Mack
Billy Mitchell
Walter Day

HOW TO REACH OLD SCHOOL GAMER:
515-986-3344
www.oldschoolgamermagazine.com

Subscriptions, address changes, or back issues go to: www.oldschoolgamermagazine.com, or contact Old School Gamer by mail at:
222 SE Main St • Grimes IA 50111
Back issues (if available): $6 plus shipping
Subscription rates: US and possessions: $30 for 1 year
Shipping address: OSG • 222 SE Main St • Grimes IA 50111

Postmaster – Send address changes to:
OSG • 222 SE Main St • Grimes IA 50111
Postage paid at Grimes, IA and other mailing locations.

Old School Gamer Magazine
(ISSN# 2574-8076 ONLINE/2574-8068 PRINT)
is published by BC Productions, Inc.
222 SE Main St • Grimes, IA 50111

Enter the Fatality

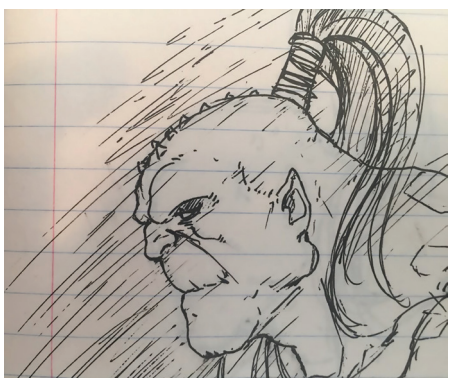
WITH JOHN TOBIAS, MORTAL KOMBAT

By Patrick Hickey Jr.

Finish Him! Two epic words that cemented the work of Ed Boon, John Tobias and the rest of the team behind Williams' Mortal Kombat in pop culture lore forever. However, thanks to a plethora of gore and fatalities that provided unparalleled fun—and controversy, the game was nearly taken off of store shelves before it became iconic.

Mortal Kombat isn't all about blood and guts though. A fantastical adventure with unique characters, it was a wild fighting game that gave birth to a new era of visual prowess in the medium. Characters didn't have to look like cartoons anymore. And they certainly didn't have to be tiny. Simply put, if you grew up playing games the likes of Adventure, Haunted House or even Super Mario Bros. in the '80s, the humongous size of the characters alone in Mortal Kombat was enough to get you excited. In the end, the team told the world they were ready to get big—or go home.

In Mortal Kombat, everything just came together perfectly. Although the blood and guts get all the attention, the attention to visual realism, plot and gameplay innovation is just as important as the vicious fighting that takes place. On its own merits, it's a classic that gobbled up quarters in arcades and sold millions of copies on home consoles. Spawning dozens of sequels, spin-offs, comics and films, it's easily one of the most successful fighting game franchises of all- time.



Boon and Tobias' road to the series was far from straight- ahead, however. Although they both had an affinity for pop culture, this was a time when pitching a one-on-one fighting game was a rarity. Games like Mortal Kombat didn't exist. Prior to Mortal Kombat, Tobias was known for his work on the Smash TV series with Mark Turmell. Boon, on the other hand, was creating pinball games.

"I was 19 when I was hired at Williams/Bally/Midway straight out of art school, but I had worked professionally for a couple of years as a comic book illustrator," Tobias said. "Fortunately, I was a video game junky and arcade rat growing up, so I knew what I liked and what I thought I could provide. I saw some success with Smash TV, but it took a few years before we achieved the success that we did with Mortal Kombat. At that age, I don't know that many people are ready for that kind of success, but the work involved was so intense that it kept me grounded in the reality of production."

Although in his twenties when Mortal Kombat hit the arcades, Tobias was far from a stranger in the industry. Already working with a great the likes of Turmell, Tobias got to rub shoulders with other greats as well. As a result, Tobias sees his time on Smash TV as a pivotal one in the development of his career.

"Mark Turmell was heading up a new project that was an update to Robotron and was responsible for hiring me," Tobias said. "The great Eugene Jarvis became involved with what became Smash TV a little later on during its development. Both of those guys were huge influences on me in terms of their work ethic and passion for games. I still carry those values today.

"I looked at Eugene as this god of the industry, although he never carried himself that way. He always made himself accessible, which was very generous considering I was a 19-year-old kid. The department was so small that management gave us creative freedom to kind of do whatever we wanted and they obviously had plenty of faith in guys like Mark and Eugene. I think that freedom played a large part in the department's past and future successes."

During the '80s and '90s, you couldn't go to an arcade without seeing a Williams/ Bally/ Midway machine. From pinball games to classic arcade romps, the company was innovative and successful, to say the least. Their idea of using digitized graphics, rather than pixel-based sprites in the Mortal Kombat games was one of the foundations for the visual look of the series, but Boon and Tobias took it to another level with their love of pop culture, particularly film. After the idea of a Jean- Claude Van Damme–licensed fighting game fell through (Van Damme ironically went on to play Guile in the Street Fighter film and Street Fighter: The Movie video game), the two began to flex their creative muscles.

Going for something completely different than what had been done previously in the fighting genre, Tobias and Boon, ironically created a game that is the polar opposite of Capcom's iconic fighting series. Although loosely inspired by the 1984 arcade game Karate Champ and Tobias' love of martial arts flicks the likes of Big Trouble in Little China and Enter the Dragon, Mortal Kombat definitely took

on a life of its own. It's crazy to think that decades later Street Fighter and Mortal Kombat still represent the Yin and Yang of the fighting game genre.

However, the game's aesthetics and almost fantasy plot were just one part of the puzzle. The digitized graphics and Tobias' idea of having the characters in the game be as large as possible was just a starting point for Mortal Kombat. Over time, the gameplay evolved past standard fighting game fare. Developed before Capcom's Street Fighter II hit the arcade scene, Tobias and Boon were working with a blank canvas. Make no mistake, both teams were redefining what a fighting game could or should be. In the case of Mortal Kombat however, they were using an entirely different brush. The combination of realistic graphics and wild attacks like fireballs, lighting and ice shards made it accessible to both kids and adults. At the same time, the team didn't know what they had early on.

"The majority of our development process was spent sitting at a desk in front of a computer for long hours every day. Not too different than it is today," Tobias said. "Even on a game like Mortal Kombat where we captured live actors in a studio, that portion of work was dwarfed by the rest of the software development process. I think it became more exciting once the games were playable and we began to get a sense of what the finished product was going to be like. Certainly, the most excitement came when the games finally made it into the arcade." But way before the game was released in arcades, Boon and Tobias knew that Mortal Kombat was missing something. What it ultimately got to fill the gameplay void not only changed the series but the video game industry as well.

"There was an odd lull at the end of a match in Mortal Kombat and we were looking to give the winning player a chance to kind of put a punctuation on their victory. That's how it started," Tobias said. "A free shot for the winner as the loser was incapacitated. But, of course, that gave way to the 'What if 's?' We originally had planned for our end boss character, Shang Tsung, to decapitate the player's character in a single player match. But, we ended up using the frames to give the players a chance to do it to each other in a one-on-one match. Once we added that, we knew there was no going back and that was the birth of Mortal Kombat's Fatalities."

While fatalities changed the fate of the series and the fighting genre forever, Mortal Kombat is finely-layered. Although it's not cute like Mario or Sonic, it's got a look and feel that caters to everyone. Kids wanted to play it because it felt naughty and adults loved that it pulled no punches. That's only one part of its allure though. The game's story, in its essence, is about anything but brutality. A wild adventure with the future of the world in the balance, Mortal Kombat is about saving humanity from an insane force of destruction. It's all about the characters involved in the struggle as well. Although the first game only featured seven characters available from the start of the game, they were all memorable and continue to play an important role in the future of the series almost 25 years later. Without this iconic assortment of faces, it's possible Mortal Kombat isn't nearly as successful. Ultimately, it's almost like a Greek myth. From the clear good characters like Raiden, Liu Kang and Sonya Blade and the evil force of Shang Tsung and the virtually indestructible Goro, to the uncertainty of the ninjas Sub- Zero and Scorpion, Mortal Kombat's plot is far from linear. It's so easy to be pulled in a variety of directions.

"I love all my children," Tobias said. "But if I had to pick it would be one of the most visually iconic characters like Scorpion, Sub- Zero, or Goro."

While the violence definitely played a role in its initial success, the attention to character development and the widening of the world in future games made sure the series was here to stay. Now with over 30 characters, the original Mortal Kombat feels like a shell of the bloody soap opera it currently is. A mega-hit in the arcades, Mortal Kombat was eventually ported to a bevy of systems, including the Sega Genesis and Super Nintendo. Once there, it became a colossal success but drew the ire of the United States government alongside other violent games the likes of Doom, Night Trap and Lethal Enforcers, the other games responsible for the creation of the ESRB rating system. While Night Trap never garnered a sequel and was taken off shelves entirely for a time in the United States, Lethal Enforcers was a success and spawned a sequel, but in no way, shape, or form could be compared to the monster hit that Mortal Kombat and its predecessors became.

The same can be said for the Doom series, which has sold over 10 million combined units and has its own film. "Mortal Kombat survived because outside of the attention and pop culture hype, it was fun to play and the sequels continued to improve the core of what made the original so much fun," Tobias said.

Unlike Night Trap and even Lethal Enforcers, the Mortal Kombat series also had fans that fought for it. They played it in arcades and on consoles—in droves. Over 20 years after its original release, the game is still one of the most popular video game series of all-time. From the original digitized graphics to crossovers with DC Comics, the series has some of the most dedicated fan bases in all of gaming.

"It's amazing how passionate fans still are about the original arcade games. They've combed through every pixel and

Images provided by John Tobias

line of code," Tobias said. "I think because of that, everything there is to know about the original Mortal Kombat games is pretty much known."

Although Tobias left the series after Mortal Kombat 4, he's gone on to work on a variety of different games including Tao Feng: Fist of the Lotus and as an employee of mobile games giant Zynga continues to influence gamers of all shapes and sizes. The fact that he played an influential role in the Mortal Kombat series, however, which has sold over 32 million copies as a series, cements his place in video game history. "I was part of something that brought fun and joy to a lot of people," Tobias said. "That will always feel good."

Looking back on his career, the humble Tobias believes the game's success had a lot to do with the time it was released. "It was created back in a day when as developers we were able to create something special with a small group of people and no outside interference," Tobias said. "No one telling us how to do our jobs. No focus groups or marketing departments. Just programmers, artists and a black box that got wheeled into an arcade. There is rarely such a pure connection between developer and player and that being the foundation of the series is one reason why people are still in love with it.

"We were special in what we brought to the game's development, but certainly we were also lucky for being in the right place at the right time. The technology and hardware we used to develop the original Mortal Kombat was a product of the software and mechanical engineers who created it. Ed Boon and I just happened to be wrapping up our previous games and we both had a desire to create a one on one fighting game. I happened to be a kung- fu movie fanatic and Ed was a genius programmer. Management was looking for a new game quickly and we were dumb enough to agree to do it. The rest is history." With all of the success and controversy behind it over the years, Mortal Kombat has a legacy that can never be denied. However, that won't stop Tobias from having a special and specific way he'd like his time with the franchise to be remembered.

"Mortal Kombat was born at a time when games were transitioning from a form of entertainment geared toward kids to one that encompassed older players as well," Tobias said. "I think we recognized that. People who played the game did so because it was fun to play, but they may have initially been drawn to it because of its pop culture notoriety as being ultra-violent. Even the newer iterations of the game today continue to take advantage of that notoriety by not backing away from the ultra-violent aspect. They just make sure to continue to back it up with a quality game."

Patrick Hickey, Jr. is the founder and editor-in-chief of ReviewFix.com and a lecturer of English and journalism at Kingsborough Community College, in Brooklyn, New York. Over the past decade, his video game coverage has been featured in national ad campaigns by top publishers the likes of Nintendo, Deep Silver, Disney and EA Sports. His recently published book, "The Minds Behind the Games: Interviews With Cult and Classic Game Developers," from McFarland and Company, has already earned praise from Forbes, Huffington Post, The New York Daily News and MSG Networks. He is also a former editor at NBC and National Video Games Writer at the late-Examiner.com. He is currently working on a followup, that already includes the developers of such iconic games as NFL Blitz, Conker's Bad Fur Day, Tony Hawk Pro Skater 3 and West of Loathing.

Holy diver
ホーリー・ダイヴァー

COLLECTOR'S EDITION

8-BIT GAME CARTRIDGE WITH
EXCLUSIVE HARD EMBOSSED COLLECTORS BOX
FULL COLOR INSTRUCTION MANUAL AND
INDIVIDUALLY NUMBERED CERTIFICATE OF AUTHENTICITY
(COMPATIBLE WITH NES®/FAMICOM®)

FOR MORE INFO, VISIT
retro-bit.com/holy-diver

EXCLUSIVE STICKER COLLECTION

ORIGINAL ART PRINTS

RETRO-BIT® X FIGPIN®
LIMITED EDITION PINS

HOLY DIVER BRANDED
HARD COVER NOTEBOOK

R-TYPE III THE THIRD LIGHTNING & SUPER R-TYPE

COLLECTOR'S EDITION

16-BIT GAME CARTRIDGE WITH EXCLUSIVE HARD EMBOSSED
COLLECTOR'S BOX, FULL COLOR INSTRUCTION MANUAL AND
INDIVIDUALLY NUMBERED CERTIFICATE OF AUTHENTICITY
COMPATIBLE WITH SUPER NES® / SUPER FAMICOM®

FOR MORE INFO, VISIT
retro-bit.com/r-type

R-TYPE®
BRANDED HARD COVER NOTEBOOK

EXCLUSIVE STICKER COLLECTION

RETRO-BIT® X FIGPIN®
LIMITED EDITION ENAMEL PIN SET

ORIGINAL ART PRINTS

AS MENTIONED BY

nintendolife GEEK DESTRUCTOID™

PUBLISHED BY retro-bit®

@retrobitgaming

Sega vs. Nintendo

HISTORIC FIGHTING GAME BATTLE

By Justin Francoeur

Thanks to the popularity of 1991's Street Fighter II, fighting games had become a hot property. It was only a matter of time before a savvy game designer would identify what made SFII such a hit, expand on it, and release it as a new best-selling game. Hence, October 1992 saw the release of Midway's Mortal Kombat in arcades across North America.

From the very moment it hit arcades, Mortal Kombat immediately drew the ire of concerned parents and news media outlets alike. In contrast to Street Fighter II's 'cartoony' aesthetic, Mortal Kombat used digitized photos of actors to make the game look realistic. This, combined with excessive in-game gore and bloodshed, helped fuel the case that video games were desensitizing youth to violence and should be monitored. This really was a sign of the times, as the early nineties were best known for its witch hunts to identify and condemn everything and anything that may be corrupting the youth of America (for example, Beavis and Butthead, rap music, Dungeons & Dragons, heavy metal music, etc).

Had Mortal Kombat stayed in the arcades, this probably would've blown over, but when it was revealed that versions of the game would be released for the home console market, moral outrage hit a fever pitch. Mortal Kombat was released on both the SNES and SEGA Genesis on Sept 13 1993, and both companies took their own steps to address concerns about the game's violence. Nintendo's solution was to remove all the gratuitous brutality from the game (ex: removing heads mounted on pikes in backgrounds, omitting some of the more graphic fatalities, and recoloring the blood from red to grey. SEGA also made the same changes, but "accidentally" leaked a cheat code that could revert the game back to its original gory glory. Oops. Understandably, this only made the media livid and sent SEGA's sales of MK through the roof (reportedly 5 copies of SEGA's MK to every one 1 SNES copy sold).

A Congressional Hearing was held. For anyone who's not familiar with American politics, Congressional Hearings are essentially fact-finding meetings used for legislative policymaking. In short, the results of a Hearing can have a major impact on a policy, which could ultimately become a law.

On December 9 1993, a joint Senate Judiciary and Government Affairs Committee hearing hosted by Senators Joe Lieberman and Herbert Kohl investigated video game violence. The underlying theme of this hearing was that video games were affecting the youth of America by desensitizing them to violence and the consequences of violent acts. The end goal was to urge the video game industry to regulate itself and offer some sort of ratings system. Naturally, Mortal Kombat -- the topic du jour -- was front and center on the radar. They zeroed in specifically on Sub-Zero (pulling head off body) and Kano's (rip out heart) fatalities.

Mortal Kombat wasn't the only game being attacked. Also being scrutinized were SEGA's Night Trap and Lethal Enforcers. Looking back, it seemed like SEGA was the primary developer being investigated.

The first two hours of this Congressional hearing are about as dry as you'd expect them to be: Lieberman and Kohl both make opening statements about the importance of video game content regulation, a panel of academia (mostly experts in the field of child psychology and youth development) are brought in to explain that video games are influential to children and need to be monitored, and then Howard Lincoln (Senior Vice-President

of Nintendo America) and Bill White (Vice-President of Marketing and Communications of SEGA of America) are called in to testify. That's when things got a little 'heated'. There's a bit of history with these two executives. Bill White was Nintendo's former Director of Marketing and Corporate Communications and left for SEGA in the summer of 1993.

Seemingly, Nintendo came in with an agenda -- they touted that, thanks to their strict guidelines, they'd never release a game with excessive violence or sexually suggestive content, but watch out for SEGA (who has exactly zero scruples about this kind of stuff). Notable quote from Howard Lincoln: "For the record, I want to state that Night Trap will NEVER appear on a Nintendo system." (Night Trap is now available as a download on the Nintendo Switch console as of summer of 2018).

SEGA started on the defensive, and opened with a scripted response stating that very few children purchase games for their system, citing that the average SEGA CD player was 22, the average SEGA Genesis player was 19, and fewer than 30% were under the age of 13. SEGA also pointed that they had already taken precautions to rate their games and allow the consumer to be aware of their ratings system.

Nintendo then pointed out that SEGA's Night Trap had no warnings or labels, they only adopted a rating system after they took heat for Night Trap, and that SEGA having such a low percentage of young players is utter BS.

SEGA countered with the idea that Nintendo isn't as innocent as they appeared to be, presenting a few Nintendo games that appeared to have escaped Nintendo's 'strict guidelines'. White then showed clips demonstrating that Nintendo and SEGA's versions of Street Fighter II are identical (which, if you think about it, fails to prove anything, since SF II is mainly cartoon violence). They also explained that since SEGA has entered the CD ROM market (SEGA CD), and Nintendo hasn't, it only makes sense that SEGA would pursue a more 'adult' audience. White then explains that the SEGA CD market is about 60% adults, which is why they focus on releasing more 'mature content' games.

Nintendo retorts with "I didn't realize that the hearing was focused on market share, I thought we were talking about regulation of violence, but my colleague must think differently". They explained that having a ratings system is nice, but it'll require retailers to enforce it.

Senator Lieberman confronts SEGA about its choice of releasing a game like Lethal Enforcers, which uses a realistic magnum .45 lightgun prop, considering America's recent climate concerning gun violence.

SEGA attempted to deflect the question by pointing out that Nintendo also used a lightgun-like weapon - the SNES Super Scope.

Lincoln points out that the Super Scope looks nothing like a handgun and further states that SEGA's handgun is called 'The Justifier'. Members in Congress laugh. This pretty much kills any momentum White had been building.

Everything wraps up with a stern warning from Lieberman advising the industry leaders in attendance that they'd better come up with their own rating system that meets everyone's concerns, or else Congress would have to. The ESRB ratings system came into creation shortly thereafter.

WINNERS AND LOSERS:

Well, the big winner here would appear to be Howard Lincoln (former lawyer who was now VP of Nintendo). He spoke confidently with righteous concern, and it appeared that he had won Congress over in believing that Nintendo was harmless and excellent at self-policing themselves. This would've made Bill White the 'loser', however, considering SEGA was the main target in this hearing. White's poorly-prepared defenses could've been attributed to nerves and the "holy crap, I'm testifying in a Congressional hearing" factor (honestly, can you blame him?).

From another perspective, SEGA did sell nearly 2 million copies of a nearly spot-on port of Mortal Kombat (including gore and all), and nary got a slap on the wrist for it. I guess it's just a matter of perspective on who was the true winner this round.

My Experience as an Expert Witness

CAPCOM VS. DATA EAST

By Bill "The Game Doctor" Kunkel

By 1993, the last thing I was looking for was an expert witness gig facing off against yet another of the most popular and powerful software developers in the business. So of course I wound up working the expert witness deal for tiny Data East against the all-powerful Capcom, whose Street Fighter II had ignited a revolution which made 2-D fighting games the dominant genre in the electronic gaming world.

I was working in my home office when a gentleman named Michael Hayes called. He was from the law firm of Fenwick & West, a name even I recognized as a heavyweight player. He told me they were defending Data East, which was being sued by Capcom.

"That figures," I remember thinking. Capcom's PR people had always been very good to me, whereas I didn't know anybody at Data East. And, of course, Data East was a relatively small player compared to Capcom, a company so powerful that it tipped the balance of the 16-bit videogame wars when it made a version of SFII available on Sega's Genesis after having previously played exclusively with Nintendo.

Michael explained that the games in question were Data East's Fighter's History and, of course, Capcom's SFII. As it happened, I had just seen the Data East game at the Kwik-E Mart down the block, so I promised to check it out and get back to him.

About three minutes into playing Fighter's History I figured I didn't even have to go home. I phoned Michael from a pay phone outside the convenience store. "I'm sorry," I told him with no small amount of relief. "But if they're going on 'look and feel' I don't think you've got a shot." "Look and feel" was one of the traditional standards by which copyright infringements were obtained and it's pretty much what it sounds like: Does the product look and feel the same as a pre-existing product? In this case, there was no question that Fighter's History looked and felt pretty damned much exactly the same as SFII - but only in the sense that, to a non-comic book reader, "all these superheroes look the same."

"Look and feel's not the issue," he assured me. Capcom was basically claiming that all of the "realistic" 2-D fighters from companies such as Data East and SNK were infringements on its own SFII. I put the word "realistic" in quotes because the Mortal Kombat games, which were almost as popular as the SFII franchise, were considered exempt from copyright infringement by Capcom.

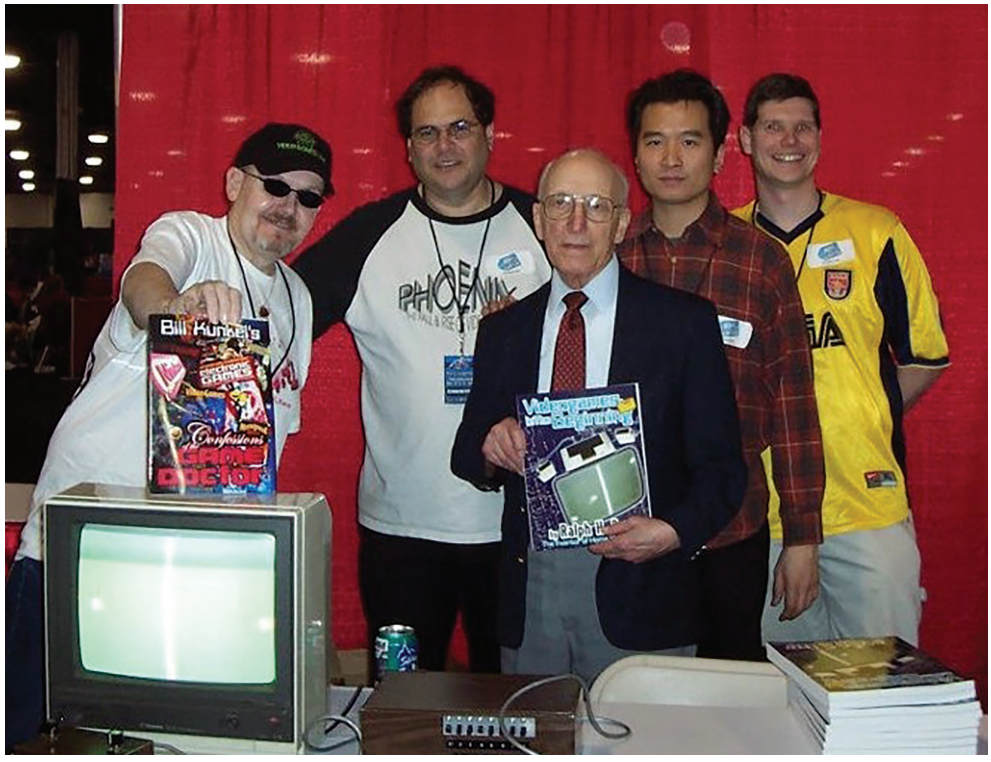
The reason given by Capcom for Midway's clearance was that the fighters in the MK games were "fantasy characters," unlike the real world fighters in its franchise. Of course, hard as I thought about it, I could never recall seeing a real world martial artist levitate into the air, turn themselves upside down, then whirl their legs like helicopter blades in order to rocket across the fighting surface to deliver a knockout blow to an opponent.

The fact was that most of the Street Fighter characters were about as realistic as the fighters in a thousand Hong Kong martial arts movies. The so-called "chop socky" film explosion in the '70s following the international success of Bruce Lee was hardly producing tutorials in the execution of legitimate karate, kung fu, judo, etc. Like contemporary neo-classic martial arts films such as House of Flying Daggers and Crouching Tiger, Hidden Dragon, these early films were more fairy tales than gritty unarmed combat films such as the later "Bloodsport" series,

which didn't come along until 1988.

I have always believed that the real reason Capcom gave Mortal Kombat a bye, however, was its unwillingness to face the legal guns which Midway (owners of the original arcade license) and Acclaim (holders of the home gaming rights) would surely bring to bear in such a case.

There were, of course, other players in the woodpile as well. Several smaller companies in the coin-op business were also making 2-D fighting games like Data East and felt either immediately or imminently threatened by Capcom's attempt to pre-empt the field. Then there was the rumored personal animosity which, at the time, often played a large part in dealings among Japanese companies. And, as it happened, Capcom's Japanese executives were said to be furious over the fact that the Street Fighter development team had recently defected to SNK.



But the bottom line was the same as it had been in the Magnavox vs. Atari case - Capcom was trying to lock up a genre. I may be a fool, but I'm a stubborn fool, and the issue of genre plundering always gets my hackles up.

I signed on and immediately went to work, researching the various legal points that would be used in Data East's defense. First, we attacked the idea that the characters in the Street Fighter pantheon were original creations which should belong solely to Capcom. A mature Internet would have been a big help, but I did have a rather large library of anime and manga, Japanese animated films and comic books. One by one, the characters that populated SFII were revealed as types rather than archetypes. I recommended the lawyers read the book Manga! Manga! The World of Japanese Comics by Frederik L. Schodt, then the leading English language work on the subject (it also contained a drawing of an old manga character who looked uncannily like Bison). The lawyers liked the book enough to hire Schodt himself as an expert witness. Capcom's lawyers maintained that specific characters in Fighter's History were doppelgangers for Street Fighter II combatants, but we were able to dig up a considerable body of evidence to prove that the characters Capcom was claiming as its own creations were in fact icons, plucked from the grab bag of Japanese culture and literature.

Another issue involved the use of play mechanics. Capcom maintained that certain moves in Fighter's History duplicated specific fight sequences, known as "combos," in SFII. Now this was an important issue since it implied that Data East was drawing unfair advantage in terms of player familiarity on the back of their game. This was an especially tough nut to crack, in that it was pretty obvious that Data East had probably done just that.

I argued, however, that there was a certain ergonomic logic to these moves that placed them beyond the realm of individual ownership. If, for example, you wish your fighter (who is on the left side of the screen) to execute a forward flip, it only made sense that the button mashing and controller shifting duplicated the motion desired of the surrogate fighter. A forward flip from the left side of the screen should obviously be executed by hitting the directional controller in a rapid left-up-right fashion. A right-up-left sequence would be anti-intuitive and unplayable. The fact that other companies' games were duplicating SFII's command system mostly demonstrated that it was a sensible system - that and the fact that there were a lot fewer buttons on coin-ops and home games in the early-'90s, thereby limiting the possible number of combination moves.

I think I was an important witness in the Pac-Man trial and I probably earned Galoob a few bucks in that litigation. But this trial was my shining hour. I got to participate in numerous skull sessions with the excellent lawyers at Fenwick & West, breaking down the arguments of the Capcom lawyers and offering insights into the game business that very few people could have provided. I was also solid on the stand through several rounds of cross-examination, unlike the poor kid who wrote the How-to-Play strategy guide for SFII. He was Capcom's big expert witness and fatherly Bill Fenwick gutted him like a fish. It was so bad that the Capcom legal posse requested a recess and retreated into a room with the hapless witness in tow.

We speculated on whether he was getting worked over as we ate lunch during the break

In retrospect, however, all my articulate testimony and straight edge logic almost got shut down before I could deliver it. Apparently the judge had seen the games and, being an elderly gentleman, must have thought the case was a slam dunk. Indeed, the games must have appeared identical to someone not versed in videogames - they had, after all, appeared almost identical to me at first glance.

His Honor walked into the courtroom with a look on his face that said: "This one is over." He announced he was prepared

to rule immediately and sweat broke out on the faces of the Fenwick & West lawyers. "Mr. Kunkel has been brought here at great expense," they pleaded, putting me over as the last word in the games business, selling me hard. And I didn't blame them;

I was with KKW when this case came along and they were paying us massive bucks on an hourly basis for research, analysis and testimony.

I wondered if I was going home early, but the judge looked irritated then gave in, allowing that they would hear my testimony. My first appearance was good enough that the judge, to his credit, reconsidered his position. He noted that there were obviously more facets to this case than he had initially realized and so we all sat down to play for several days of testimony and deliberation.

Fenwick and West seemed very well pleased with my performance, but there was one thing about me that scared the hell out of them - I absolutely sucked at 2-D fighting games. To be honest, I pretty much hated them and this period of dominance by the 2-D fighters was tough for me to deal with. The idea that I would practice these elaborate moves for hours was about as exciting to me as watching grass grow.

Somewhere, in their heart of hearts, I know that my lawyers had a terrible fear that, unable to dent my rep as an Expert, the Capcom lawyers would try a desperate gambit.

"You are such an ... 'expert' at these games, Mr. Kunkel," they might say, "why don't you come over here and show us how well you play the game itself, hmmmm?"

Of course, Fenwick & West wasn't spending its own money - the bucks came from Data East, which was not only fighting for its life, but for the lives of several other companies. Millions were spent solely to produce elaborate split screen animations comparing and contrasting the "original" characters from SFII with the supposed copies in Fighter's History. Every day the trial continued, the billings continued to swell.

So what were a few thousand bucks to teach Bill Kunkel to become a top notch SFII player?

Their solution: bring in a SFII gunslinger to tutor me. He spent two days, somewhere in the neighborhood of a $5,000 billing, teaching me to play the game at an acceptable level. I was better than he expected, but my lack of combo knowledge appalled my sensei. So hour after hour, a mental meter ticking away in my head, I learned how to execute every character's special moves. By the end of this grueling training period, I was good enough that my mentor described me as "not awful anymore."

Of course, I was never called upon to go anywhere near either of the games in court. Everything went like a dream and, in the end, Capcom's case was kicked out of court, based on the arguments we had developed. It felt good-and prosperous.

Unfortunately, I guess Fenwick & West may have been a little too liberal in their willingness to spend Data East's money as that venerable game company basically went out of business shortly thereafter, despite the win.

I think the most ironic thing about the whole deal was the fact that Data East had actually invented the martial arts genre with its '80s arcade game, Karate Champ. When another company (Epyx) copied Karate Champ down to the last pixel, Data East sued them.

They lost when the Ninth Circuit Court ruled that all karate games would be more or less the same, just as all baseball, football, basketball and other sports games would inevitably share common characteristics. In fact, it was that very ruling that led Data East to believe it would have no trouble producing a SFII type game, since all 2-D fighting games would be "more or less the same."

CODA: On the way home, my flight was delayed and I decided to kill some time in the airport arcade. Bursting with about 8 hours worth of personal tutelage at the hands of an absolute friggin' street fighting beast, I felt like Luke Skywalker after Yoda taught him to levitate the spaceship out of that swamp.

I walked up to the latest SFII incarnation (probably Championship Edition) and plunked down my token on the control board since a young kid was already playing. He offered to go two-player and, of course, he cleaned my expensively-trained clock.

The worst thing was the way he would giggle every time he landed a blow, the little snot. Naturally, he was on my flight and the whole ride back to Vegas from California he would nudge his parents, point at me and crow ("THAT'S the guy I beat at Street Fighter 2, mom! Dad! Man, I wiped him OUT!").

Bill Kunkel helped invent video game journalism when he and his friend Arnie Katz published the first gaming column "Arcade Alley" within the pages of Video Magazine in 1978. Teaming up with Joyce Worley, the trio launched the wildly popular Electronic Games, a monthly magazine that still sets the standard and had a circulation of more than 250,000 during its peak. Within those pages, the "Game Doctor" emerged, becoming one of the most iconic alter-egos within the video game industry.

Before his foray into video games, Bill wrote for Pro Wrestling Torch and multiple comic books for Marvel, Harvey, and DC Comics. The EGM trio also formed Subway Software, which developed Batman Returns and The Simpsons: Bart's Nightmare for major publishers. Kunkel authored his memoir, "Confessions of the Game Doctor," covering his early days in the gaming industry. Until his demise in 2011, he wrote articles for J2 Games and Good Deal Games.

MIDWEST ARCADE AUCTION

Thanksgiving Weekend Tradition

November 24th, 2018

More Info at AmusementAuctions.Com!

Come to Altoona Iowa (just outside of Des Moines) and play and shop auction style for Classic and Newer Arcade Video games, Pinballs and More!

Games on Free Play until Auction Starts, Recent auctions have had 300-600 pieces. Good working games often sell for $200-$300, great classics and newer games for $600+

GOT STUFF TO SELL?

$10 entry fee plus 10% commission with a $10 buyback. All games must be COMPLETE. Discount for companies bringing 20+ working games. For the discount, the items must be working video games or pinballs, no discount on redemption or other items.

Please call Tom at 515-360-7282 with questions!

The Untold Story of Highlander: The Video Game

(NO, NOT THE ONE YOU'RE THINKING OF)

By Warren Davis

If ever there was a licensed property that would lend itself to becoming a video game, Highlander was it! You've got a collection of immortals who challenge each other to sword fights to the death (by beheading, no less!), over the course of centuries, until there can be only one. What more could you ask for?

The original film came out in 1986 and told the story of Connor MacLeod (played by Christopher Lambert). While it didn't do very well in its initial release, it slowly developed a cult following. And it managed to inspire a sequel in 1991, Highlander 2: The Quickening. A TV series followed in 1992, starring Adrian Paul as Duncan MacLeod, a fellow clansman to Connor, who makes an appearance in the pilot. The series was pretty popular and lasted for six seasons. Its last episode aired in May 1998.

Meanwhile, the film series continued Connor's story with a third entry, Highlander: The Final Dimension in 1994. Then Connor and Duncan both appeared in the film Highlander: Endgame (2000) and Duncan got his own TV movie in 2007 with Highlander: The Source. There was also an anime movie in 2007, Highlander: The Search for Vengeance. It's probably best not to mention Highlander: The Raven, a short lived series that ran one season after Highlander: The Series was over.

So where were all the Highlander video games during this time? Well, few and far between. In 1986, right on the coattails of the original film, Ocean Software released a Highlander video game for the Commodore 64, Amstrad CPC and ZX Spectrum home computers. It was roundly panned.

In 1995, Highlander: Last of the MacLeods was released for the Atari Jaguar system. It was based on an animated Highlander Series that ran between September 1994 and January 1996, while the live action Highlander series was at its highest popularity. Last of the MacLeods was more of an adventure game than an action game, and although it used motion capture and full motion animated video sequences, the graphics were considered crude and the combat controls left much to be desired.

Much later, in 2005, there was a slightly higher profile game announced. Eidos Interactive was to publish Highlander: The Game for PS3, Xbox 360 and Windows. Grand in scope, and taking advantage of the many improvements in video game technology through the years, this was believed by many to be the Highlander game that everyone had been waiting for. But, other than a teaser trailer released in 2008, nothing came of it. Square Enix, which acquired Eidos Interactive in 2009, announced in 2010 that the game was officially canceled.

But there's another story that has never been told until now. It's about a proposed Highlander game intended for the arcades. This game was to be developed by Williams/Bally/Midway at the height of their success in the 1990s after releasing a string of hits including Terminator 2, Mortal Kombat, NBA Jam and Revolution X. I know about this game because I was the one who was going to lead the project.

Some backstory: Most people know of me as the designer/programmer of Q*bert, which was manufactured by Gottlieb and released in 1982. After Gottlieb closed its doors in 1984, I took a job outside the industry for a short while, but was contacted by Williams in 1986 and without hesitation, I came back to the video game world. I helped develop the software for Williams' new 256 color hardware, and also created a system for incorporating digitized images into their games. NARC was the first game to use that system, followed by Trog and High Impact Football. I left Williams for a couple of years, only to return when they lost a programmer in the middle of the development of T2: Judgment Day in 1991. T2 was a huge success and our team (led by George Petro and Jack Haegar) largely stayed intact to develop Revolution X featuring Aerosmith. During this time, I continued to improve my digitizing system (which I called WTARG) to take advantage of faster processors and lower memory costs. Our video game hardware system improved over the years as well, adding features like hardware scaling and the ability to have multiple 256 color palettes. Mortal Kombat and NBA Jam both used WTARG for image creation.

After Revolution X wrapped in 1994, the question became (as was the case after every project) "What's next?"

Having spent the last 3 years working as a senior programmer on T2 and Revolution X, making some design decisions but really not having responsibility for the overall game, I thought it was about time I headed up a project on my own, something I'd done at Gottlieb but never at Williams. I pitched a monster-themed game to management, but they passed. Not long after that, management pitched an idea to me. They'd been in contact with the owners of a property who wanted to turn that property into a video game.

In fact, it was the producers of the Highlander TV series that were talking to Williams! At the time of these negotiations, the show was doing well and about to enter its third season. In addition, the third film in the series, Highlander: The Final Dimension, was about to be released in theaters. So, the hope was that there was enough interest in Highlander that this project could actually fly.

As a Highlander fan, I was on board. Management, though, had some doubts. For one thing, the movie and film franchises were produced by different entities, so we wouldn't be able to use anything from the films, just the TV show. Also, management wasn't sure how much life the TV show had left. We needed about a year lead time before a game could realistically be done. What if the show got canceled in that year? It was a risk. Finally, to take advantage of our digitized graphics, we'd want access to the actual actors from the series. The producers couldn't guarantee us their participation. My assumption was that it came down to money – how much they'd be paid and who would pay for it;

although that's just a guess on my part since I wasn't involved in the negotiations in any way.

In its earliest stages, while the idea of a Highlander game was intriguing, it was far from a done deal. To be honest, I had some concerns about it myself, mostly due to the nature of the mythology. After all, it's a story about people who have to CUT EACH OTHER'S HEADS OFF. It's all about the swordplay in Highlander, and that's what I'd have to bring to the game. Technical challenges aside, my feelings were mixed.

Once, many years earlier, I got into a blisteringly heated discussion about the wisdom of having exploding body parts in NARC. It's not that I'm a prude, but photo-realistic images were a new thing at the time, and I thought maybe, since young children spend time in arcades, we should just consider the effects of potentially exposing them to those images. Some years later, T2:Judgment Day was attacked in a piece on Entertainment Tonight for encouraging kids to shoot cops. In our defense, that's what the Terminator did in the movie. He never killed a cop, just shot them, most notably in the knee. So that's what he does in the game. Mortal Kombat pushed the limits of gory graphics even further. In fact, you could argue that Mortal Kombat created a new standard for what kind of graphics were acceptable in an arcade game.

Now here I was, considering programming a game where you cut someone's head off with a sword. I was conflicted, but I thought, "Well, at least I have management on my side." After all, they didn't seem to have any problem with the graphics in NARC, T2 or Mortal Kombat. For my part, I justified it the same way I was able to justify shooting cops in the knee in T2 – the game is based on an existing story, and if we're adapting it into a game, we need to tell that story. I also decided to make the beheadings bloodless, so as to render them (hopefully) unrealistic. I wasn't looking to push the graphic envelope further, but to take a step back from it.

While management continued talking with the producers, I set my sights on figuring out the technical elements of the game, specifically the sword battles.

The display system I used was the same one I'd developed for Revolution X. It was a pseudo-3D system (meaning it was actually a 2D system which couldn't do all the math required for a true 3D polygon system, so I took some shortcuts and played some tricks to give a limited version of a 3D polygon system). It had a virtual camera that could dolly in and out, side to side, and up and down. However, it couldn't pan, tilt or rotate in any way. All the visual elements were essentially billboards. And it took advantage of the scaling hardware in our proprietary graphics chip, so images would grow as you got closer and shrink as you moved farther from them.

As it turns out, our own programmer, Jake Simpson, was a bit of a swordsman, so he became the actor for my experiments. I digitized him in a variety of poses, performing a variety of both offensive and defensive moves, at enough angles to allow for smooth turning motions. I also wrote some code to have a player control one instance of him while playing against a computer-controlled instance of him. It was crude, but watching him circle around himself, then attack himself, was both comical and satisfying. I felt pretty confident I could get the look and "feel" of combat working the way I wanted.

Just as things seemed to be picking up steam, management started to push back on the violent nature of the game. They'd say, "Do you have to cut your enemy's head off? Isn't there something a little less extreme we could do?" And I'd respond, "Um.... no! It's part of the mythology. It's what makes this Highlander and not a bunch of random guys trying to kill each other with swords." After T2 and Mortal Kombats I and II, this sudden squeamishness confused me. But as it turns out, the controversies attached to both T2 and Mortal Kombat regarding violence were finally wearing management down. They were looking to distance themselves from any trouble. I began to worry that I would lose their support and the deal would fall through.

Another source of anxiety was the fact that weeks were going by and we still couldn't get a deal locked down with the producers. I started to become discouraged, thinking either Williams or the producers would back out any day. Or possibly both would just get bored at the lack of progress and throw in the towel.

Around this time, some friends of mine had planted a seed in my head about moving to Los Angeles. I really hadn't entertained that notion when it was first brought up, because I was pretty happy in Chicago and the idea of uprooting my family to move that far wasn't a pleasant one. But I began to hear from more and more friends – mostly actor friends – that they were planning to move to LA soon.

It also didn't help that I had doubts about the longevity of the arcade industry. This was late in 1994. Sega Saturn and Sony Playstation had just come out and were pushing the envelope of what home systems could do. Graphics cards for PCs were improving to the point where it became clear they would soon surpass the capabilities of arcade systems. I started to believe that the arcade industry might really be over. Home systems were the wave of the future. Maybe I should get out before things get ugly.

These were the thoughts in my head as Christmas of 1994 approached. I felt as if I was being tugged in too many directions. It seems strange to admit, but I decided to hang my future on an audition for a play. I'd been part of the theater community in Chicago for years – it was mostly a nights and weekends pastime for me. I told myself that if I got the part in this particular play, I would stay in Chicago. If not, I would quit my job and go on an exploratory trip to LA for a few months. If things worked out there, then I'd come back and make the arrangements to move my family out west.

Long story short – the audition did not go well, and the next day I walked into Williams and gave my two weeks' notice. I think they were shocked. I was kind of shocked myself. This was all very sudden, but I had to admit, I got a real feeling of peace having made the decision. Strangely, the story doesn't quite end there. Just after I quit, I found out that I had actually been cast in the play! I was stunned to hear this. I was so certain my audition didn't go over well. Regardless, deciding to move to LA just felt right. So, I stuck to my guns and turned down the role.

The next day, I arrived at work to find Neil Nicastro waiting in my office. Neil was the President and CEO of Williams, and though of course I knew him, my interactions with him were kind of rare. And in my nearly ten- year history with Williams, he had never, ever, not once, come to my office.

He said, "Warren, you'll never guess what's happened. I have a signed agreement with the producers of Highlander. Not only that, they've given us everything we asked for, including shooting time with the actors. All you have to do is say yes, and we'll sign it, and it's a go."

Uhhhh... what???

I had something like an out-of-body experience. It was like the universe was messing with me. Saying "Are you REALLY sure you want to go to LA? Let me dangle these carrots in front of you just to make sure." Eventually, clarity and sanity returned and I said, "I'm sorry, Neil. I really am. But I'm committed to going to LA." He took it pretty well. Maybe he was relieved that now he wouldn't have to defend a game where players are beheading each other. At any rate, I stayed on for a couple of weeks, then left for LA. I went back and forth for a year and a half before my family and I made the move permanent.

I kind of hoped someone else at Williams might take on the Highlander project, because I believed in the concept, but no one else was interested. And so, unceremoniously, that was the end of the Highlander video arcade game. It never really got past the proof-of-concept stage. I still think about how that game might have turned out if I'd stayed and finished it. And I still hope that someday, the Highlander franchise will get the video game it deserves.

Warren Davis is a classic videogame creator best known as the designer and programmer of the original Q*bert arcade game. He also co-designed and programmed Us. Vs. Them, an innovative laserdisc title featuring scenes with live actors interspersed with sci-fi combat gameplay composited over actual flying footage. His other titles in the arcade industry include Joust 2 (for Williams), T2:Judgement Day and Revolution X (for Williams/Bally/Midway). He was a pioneer in the use of digitized video. His WTARG system was used in many of Williams' most successful games, including NARC, Hi Impact Football, the Mortal Kombat and NBA Jam series', T2, Revolution X, and more. In 1995, Warren moved to Los Angeles to work for Disney Interactive on a variety of home titles. For a short time, he was an Imagineer with Walt Disney Imagineering. After Disney, he worked as a senior programmer on the console game Spyro: Enter the Dragonfly, and programmed an edutainment title, The Lunar Explorer, and spent some time at Industrial Light and Magic.

Hopping Zombie Vampires

AND THE LAST APOSTLE PUPPET SHOW

By Michael Thomasson

Many video game fans believe that 1992's Mortal Kombat was the first fighting game to use digitized sprite graphics. Others recognize Atari's 1990 hit Pit-Fighter as the premiere beat 'em up boasting the technology. The truth is that a rather obscure title, released mostly in Japan, beat them both to the punch! Reikai Doshi: Chinese Exorcist, which translates roughly to 'Priest of the Spirit World', launched in September of 1988 to little fanfare, despite being rather unique and fresh. The game was later released stateside as The Last Apostle Puppet Show, but its distribution was so poor and limited, it is doubtful that you encountered a unit.

Not only was it the first fighting game to use digitized graphics, it was also the first one-on-one combat game to make use of motion capture animation. Furthermore, it was the debut video game to feature claymation and puppets. Not hand puppets mind you, but more like marionettes dangling from strings, reminiscent of the stop motion animation. Compare them to bobble headed wooden puppets often seen in children's programming such as the famous Rankin Bass Christmas specials. Is it possible that the game's clay-mation inspired the Goro character in Mortal Kombat?

More fascinating is the back story of the game. In this far east fighter, you play as a Chinese exorcist battling your way up a mountain against an army of oriental demons known as Kyonshi, the Japanese equivalent of the Chinese Jiangshi. These demons are reanimated corpses that have frightened Chinese children for generations through lore and legend. The character for "jiang" translates to "stiff" implying that rigor mortis, or postmortem rigidity, caused the limbs of the corpse to stiffen, resulting in zombie-like creatures that have to hop about with their arms out-stretched to maintain simple mobility. Ancient folklore decrees that when such dire creatures happen upon the living, they kill and absorb the "qi", or life force. Hence, the term hopping vampire.

Such stories are thought to have resulted from tales of Taoist priests who would conduct a ritual to reanimate a cadaver and teach it to hop home so that it could be buried among family and friends. In truth, corpses were arranged in single file and upright, tied to long bamboo rods, and carried long distances on the shoulders of the living. However, when the bamboo expanded and contracted while in motion, it gave the impression that the corpses were hopping when viewed from a distance.

This unique angle allowed The Last Apostle Puppet Show to boast varied and novel character designs in a genre that is usually fairly stale and full of clichés. Regardless of the history, Home Data published a beautiful and technologically advanced title – especially considering that the company had only published a series of Mahjong and Shogi titles prior. That latter fact could help could explain the game's clunky controls. The moves are very vanilla, implementing only three buttons to jump, punch, and kick. It does allow for high kicks, ducking, and leg sweeps, as well as the unique ability to perform multiple attacks while airborne! Defeating your opponent makes your foe's head launch from its body as if foreshadowing the violence to come when Mortal

Kombat is eventually released. Unlike MK, no blood squirts... as puppets don't bleed. This game also served as a precursor for future fighters in other ways. For instance, a stork flies overhead dropping hazards and powerups, a system adopted later by SNK's Samurai Shodown series.

Even though The Last Apostle Puppet Show is not a household name, it was groundbreaking for its time and warrants recognition. Old School Gamer is dedicated to preserving video game history and wishes you only the best with your hopping zombie vampire encounters.

Michael Thomasson is one of the most widely respected videogame historians in the field today. He teaches multiple college level videogame courses, and has contributed to dozens of gaming texts and television shows including MTV's Video MODS and the highly-rated book Downright Bizarre Games. He has written business plans, managed a multiple game-related retail stores, and consults for multiple video game and computer museums. Michael has helped publish 100s of games on Atari, Sega and other console platforms. In 2014, The Guinness Book of World Records declared that Thomasson had "The Largest Videogame Collection" in the world. Visit www.GoodDealGames.com.

Requiem for Game Room

MICROSOFT'S ARCADE REVIVAL AND ITS LOST POTENTIAL

By Ken Horowitz

The death of the American Arcade has been somewhat overstated, I think. Given the rise in barcades and the growing popularity of classic arcades like Chicago's Galloping Ghosts, Mark Twain would likely chuckle at pronouncements of the industry's demise. People have been warning of the impending end of arcades for two decades now, but here we are. In 1998, former Sega Enterprises USA head Alan Stone said that the industry was in a state of constant evolution, and each "death" was in fact one of its many lulls. 20 years later, it seems that Stone's prediction has rung true.

In 2010, we seemed to be experiencing one of those lulls, and arcade fans had to turn elsewhere for their arcade fix. Game compilations and mini arcade replicas of classic titles have helped somewhat, but neither have managed to recapture the sense of interaction and competition of the arcades of old. Microsoft seemed to understand how important these elements were to the classic gaming experience, and the publisher pressed down hard on our nostalgia nerve with the release of Game Room for the Xbox 360 and PC in 2010. The innovative concept allowed gamers to create their own customized, multi-floor arcade and stock it with classic titles from major publisher like Konami, Atari, and Activision. Each of the three floors had four separate rooms that held up to eight cabinets, a decent number of machines. One would download free packs that included six different games (each game was $3, or $5 for use on Xbox 360 and PC). Arcade, Atari 2600, and Intellivision games were included in each pack, which also came with themed decorations like outer space and the Old West, as well as game avatars that wandered the complex. My Atari 2600 room had a cool pirate theme to it, and the dragon from Adventure intimidated the guests. It was glorious.

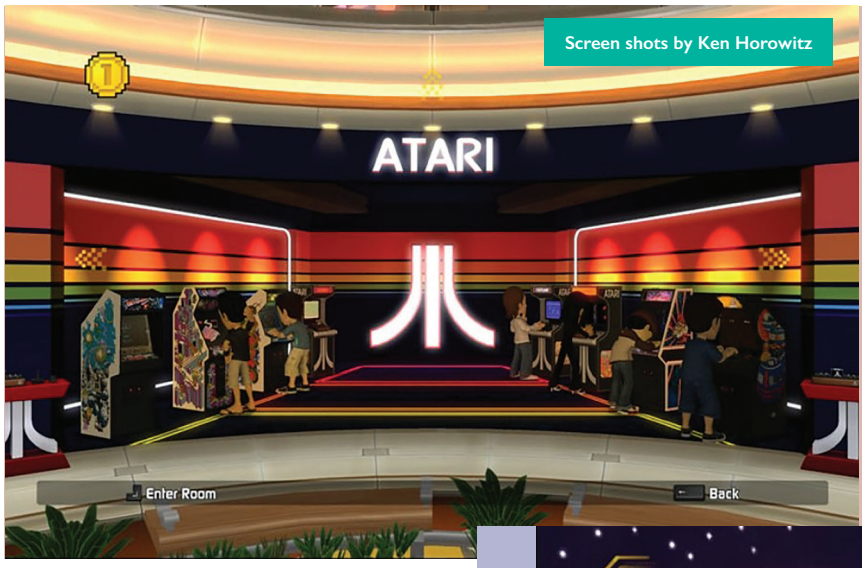
As someone who lives in an area sorely lacking in coin-operated entertainment, I found Game Room to be a welcome gift. Each game supported online leaderboards, and through Xbox Live, players could visit their friends' arcades and try to take down their high scores. They could even issue direct challenges, giving them a specific amount of time to put up or shut up. People could even enter their friends' arcades and use virtual tokens to try out cabinets there that they didn't yet own. It was a lot of fun to log in every couple of days and see how my rivals were doing, retake a lost high score, continue my dominance among friends by taking theirs, or just wander around the different floors and enjoy all the classic titles. Heck, I could spend a good deal of time just gazing at those beautiful Atari arcade cabs alone.

Lamentably, what started out with so much potential soon withered on the vine. People began to leave the service within a few months, leaving many Xbox digital arcades an ironic reflection of the bare and dying game centers so often talked about. Before it could really catch on, Game Room stalled hard. The problem was not in the design or the concept. Much of the blame for the tepid interest Game Room generated over the few short months since it was launched lay with Microsoft itself. The company seemed to do just about everything to ensure that as few people as possible cared about what could otherwise have been an awesome concept. Slow releases (including games with specialized controllers that are now nearly unplayable), the actual dearth of arcade games in each pack (packs often included Atari 2600 and Intellivision titles), the annoying pauses while playing, the lack of publisher support, the generic design of the Konami cabs, etc. – all contributed to killing off Game Room. MS remained mostly silent, sputtering out a few updates on the official Game Room Facebook page, but nothing appeared on the Xbox 360 dashboard.

Many people were frustrated with how the service was handled. When MS boasted in March 2010 that there would be a thousand games, people got excited. They imagined Capcom, Namco, Data East, and a slew of other arcade stalwarts offering up their best wares for 240 Microsoft points. I, myself, envisioned an entire floor of my game room stocked solely with deluxe Sega cabinets like Galaxy Force and OutRun. None of that came to pass, however, and it seemed like Game Room was a throwaway idea rather than a budding and persistent means to relive the glory of the arcade's golden era.

The next few years saw sporadic releases and lots of delays, and by March 2015, the ride was over. All the game packs were pulled from the Xbox Marketplace. Just like that, 188 games were gone. Considering just how many titles were still waiting to be added (I wanted Food Fight!), it was a lamentable turn. Konami vanished from the list, leaving shattered dreams of high score

Dr. Kenneth Horowitz is an English professor who has taught research and writing for 20 years. He is the author of "Playing at the Next Level: A History of American Sega Games" and " The Sega Arcade Revolution: A History in 62 games," and his work has been featured in numerous video game publications like GamesTM and Hardcore Gamer Magazine. Ken has also published academic articles in professional publications, such as Language Magazine and the Hispanic Educational Technology Services Journal.



Screen shots by Ken Horowitz

battles in titles like Jackal, Circus Charlie, Gradius, and Devastators. Microsoft promised over 1,000 titles but fell far short of the goal, ultimately delivering less than 20% of the promised total.

That's what makes Game Room such a tragic part of video game history. It held the promise of bringing that feeling of the old arcade back in a way that modern gamers could appreciate and adopt quickly. It could have been a modern spin on the classic arcade, bringing the sense of practice and competition that fueled so many high score challenges back in the day. It could have once more made the arcade a social hub where people could gather and talk about games and how to master them. Moreover, it would have served as a means by which younger players could have tasted what arcades used to be like, fostering a new interest in legendary coin-ops and bringing fresh exposure to those that were less known.

Microsoft certainly gave Game Room all the elements to meet those goals: cool decorations, people strolling around and playing, authentic arcade sounds, and those beautiful Atari cabinets. It was as close to the real thing as could be had for many people. I remember logging in almost every day to see if any of my high scores had been broken. Those that had became an immediate priority. The gauntlet had been thrown! There was simply no way I could log out and leave those challenges unanswered. Most of the games took little time to play, so it was convenient to check back a few times per week.

Today's arcades pretty much reflect Stone's assessment from 20 years ago. They have evolved, and their status as arenas of competition have given way to redemption cards and kiddie rides. It would have been nice to see Game Room endure, battling with my kids and friends for arcade dominance. In hindsight, one must question just how long Microsoft planned to support the service. All those company licenses cost money, and while it's unknown if there was sufficient consumer support to justify the expense, it likely would have taken more than Microsoft was willing to pay to make Game Room a long-term investment.

The lost potential is saddening, but I still have hope. Maybe the concept of a persistent online arcade service will evolve, much as the actual industry has, and another company will take a chance at an upgraded version of Game Room. Until then, we'll just have to settle for memories of better days.

OLD SCHOOL STUFF!

If you are going to do the Christmas sweater thing, why not do it as a gaming geek? Feature Harry Potter, Star Wars, Sypro The Dragon, PlayStation, Atari, Sonic and More! Order now for Christmas!

geekstore.com

Have you ever wanted your own branded headphones? Well, this is as close as most of us will ever get. You can get yours laser etched with your logo and more—and get a great set of headphones while you're at it. Wired or wireless models available.

v-moda.com

These books are part of a series of quick reads by Michael Salzman that I really enjoy the releases of every month or so. All available through Amazon both in print and digital form!

mikesalzman.com

A great movie with some great people in it. I got my copy from Howard Scott Warshaw at PGRE; you can get yours at the website below.

onceuponatari.com

Enjoy every BIT of Christmas this year with...

AVS

Play your NES carts in amazing HD

&

Our 11th Annual Holiday Cart
8-BIT XMAS 2018
(with Blinky Lights & fully compatible with NES consoles)

retroUSB

Follow us @retroUSB | retrousb.com

Put The Haunted Series Under Your XMAS Tree

Have a Creepy Christmas this year

www.retrotainmentgames.com

Shareware

INFLUENTIAL ORIGINS OF SHAREWARE IN GAMING

By Robert Seale

If you were playing PC games, or even just using PC software in general, at any point throughout the 90s, you almost certainly saw or heard the term "shareware". Not quite a demo, not quite freeware, shareware was a revolution in software distribution. It was crucial in helping then-small teams such as Apogee Software/3D Realms, id Software, and Epic MegaGames (now simply Epic Games) become the iconic developers they were destined to be.

The concept of shareware is simple, yet effective. Developers got their product out there through any channel possible at the time, be it a website or BBS, a promotional floppy disk or CD-ROM, or a copy from a friend. That's right, do copy that floppy, and copy it as much as you can. This made putting money into marketing and publishing far less crucial, as they let the gaming community and the internet do that gruntwork for them. Once the developers got people using their software, they used a number of incentives to get users to register their shareware and upgrade to the full, paid release. Some would offer the full or near-full product as their shareware release. Many of the shareware releases came with built-in timers that would automatically lock out or disable elements of functionality after a predetermined amount of time, unless you paid for a key. Others would use "nag screens" to hopefully annoy the user into buying a key, making them wait or click through screens of text pitching the full product to them. Famously, WinRAR still uses a version of this method. Still others would simply give out the full, unrestricted program for free, asking only that you give copies to everyone you can and send a small bit of money the developers' way if you like and continue to use it.

Shareware can be traced back to a developer named Bob Wallace, whose 1983-word processor PC-Write was the first software to use the model and the name. While earlier software used elements of what would eventually become shareware, like the works of Jim Knopf and Andrew Fluegelman, PC-Write set the trend, and developers took notice as Wallace's company, Quicksoft, boomed.

In gaming, the most popular incentive method was to split the game into episodes, offering the first episode as a freely distributable shareware release. Upon finishing the first episode or exiting the game, you'd be presented with a nag screen describing or presenting screenshots of all that awaits players who register. This was known as the "Apogee Model", named after Apogee Software. Their founder, Scott Miller, pioneered this method with 1987's Kingdom of Kroz. Apogee would go on to use this strategy for all of their games to great success, and other small developers quickly followed suit. Major companies had less need for the Apogee Model, and never really jumped into the trend. Miller himself had this to say in a 1997 interview:

"The reason few developers have copied Apogee's shareware marketing and direct sales methods is because most publishers do not allow developers to do what we do, because it cuts the publisher out of a good portion of the game's revenue." (http://www.simoncarless.com/2013/04/dukin-it-out-a-1997-interview-with-apogee3d-realms-scott-miller/)

What separated the average shareware game from a demo was the sheer amount of the game offered for free. Where a demo would offer a level or two, usually with greatly reduced options or even unfinished assets and code, a shareware game might offer up to a third of the full game exactly as it was presented on shelves. This did have an interesting side effect once games were developed with shareware in mind: the first episode of a game would often showcase more varied or intricate level design than the registered ones, and would feature reduced number of enemies and/or weapons, making it stand out from the other episodes. After all, the shareware version had the task of hooking players, so if the first episode didn't put the game's best foot forward, it didn't matter how good episodes two and three were.

Thankfully for both developers and players, the folks behind Apogee, id, and Epic were plenty capable of delivering registered games that fulfilled the promises made by their shareware. DOOM, Wolfenstein 3D, Commander Keen, Jazz Jackrabbit, were all beloved shareware mainstays that not only rocketed these scrappy teams to the top, but paved the way for every garage programmer to get their names and games onto people's computers.

This minor gaming gold rush wasn't underway long before the next big step in distribution came, often against the wishes of the developers. Compilation CD-ROMs, touting hundreds and eventually thousands of shareware games per disc, were the new hot thing. Get a handful of the must-haves like DOOM, then scrape FTP servers to fill the disc with everything from pirated software to college student game projects to incomplete installers that just happen to have been on the server for whatever reason. Sort them, often inaccurately, into genres and folders, and sell the package for ten bucks at various stores or computer shows.

Despite their slapdash nature and questionable methods, these CD-ROMs got shareware into even more hands, and was far more cost-effective than the individually sold hard copies of shareware titles that otherwise provided an alternative way to obtain these games in a time when a potential customer's internet connection was far from guaranteed. One could argue that compilation CDs made unlikely hits out of games that would otherwise have faded into obscurity as well. PC gamers of a certain age likely remember David P. Gray's Hugo's House of Horrors, for example, even with it never having been advertised or widely distributed at that point outside of compilation CDs.

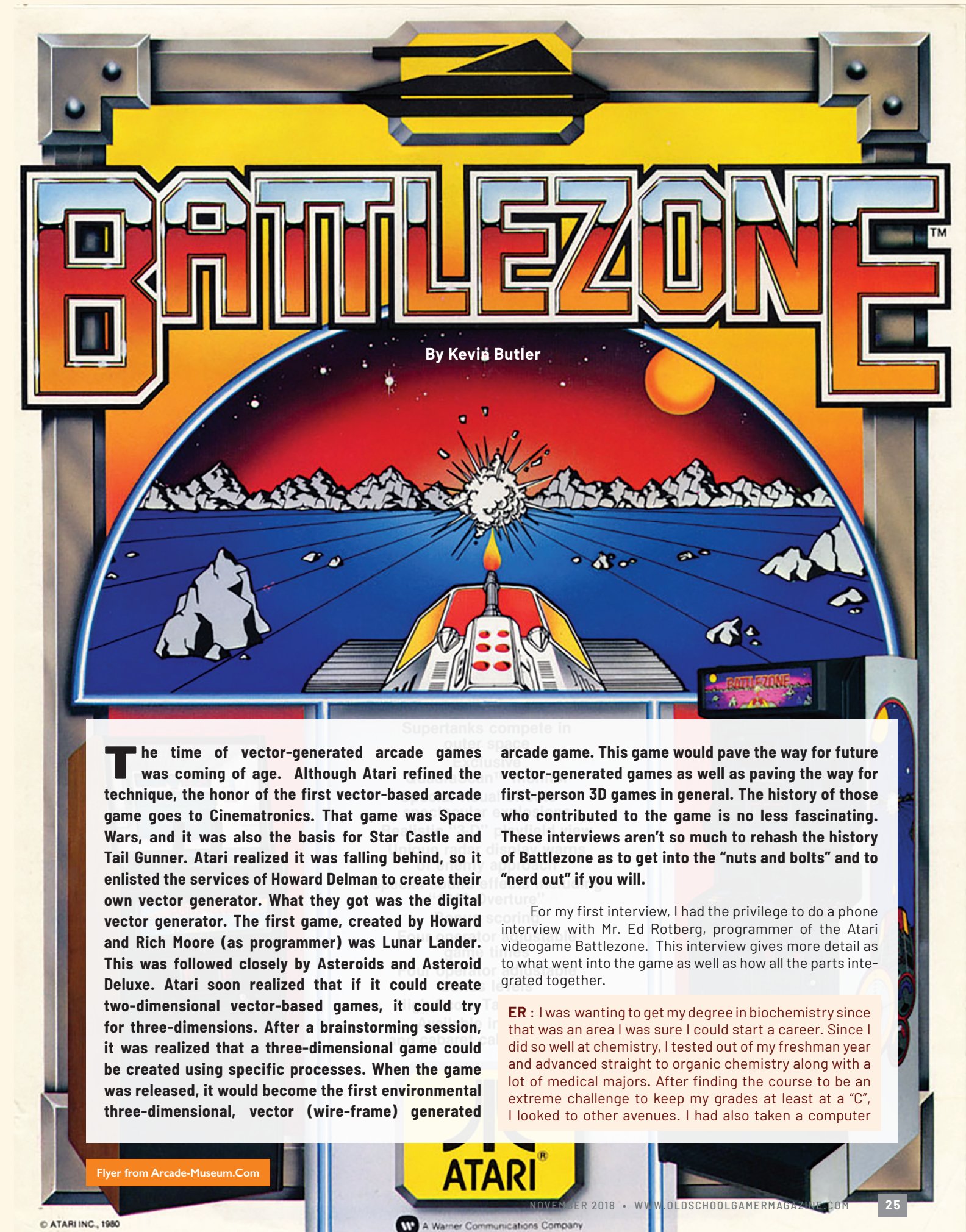
As the 90s were winding down and PC games were becoming larger, more complex, and too big to easily spread around or download on dial-up connections, shareware's heyday was coming to an end. While it's still used in various forms to this day in productivity and other non-gaming software, the modern gaming landscape has little use for the Apogee Model. Even the stalwart demo has become less common in the era of open betas, freemium games and free weekends.

Yet, as we get in our pre-orders for DOOM Eternal, we can see the shadow of shareware's legacy all over the gaming landscape.

Robert Seale – Robert Seale has been a PC gaming enthusiast since 1993. His love of the medium has instilled a lifelong passion for sharing his fascination with the PC gaming culture (as well as the general pop culture) of the 90s.

BATTLEZONE™

By Kevin Butler



The time of vector-generated arcade games was coming of age. Although Atari refined the technique, the honor of the first vector-based arcade game goes to Cinematronics. That game was Space Wars, and it was also the basis for Star Castle and Tail Gunner. Atari realized it was falling behind, so it enlisted the services of Howard Delman to create their own vector generator. What they got was the digital vector generator. The first game, created by Howard and Rich Moore (as programmer) was Lunar Lander. This was followed closely by Asteroids and Asteroid Deluxe. Atari soon realized that if it could create two-dimensional vector-based games, it could try for three-dimensions. After a brainstorming session, it was realized that a three-dimensional game could be created using specific processes. When the game was released, it would become the first environmental three-dimensional, vector (wire-frame) generated arcade game. This game would pave the way for future vector-generated games as well as paving the way for first-person 3D games in general. The history of those who contributed to the game is no less fascinating. These interviews aren't so much to rehash the history of Battlezone as to get into the "nuts and bolts" and to "nerd out" if you will.

For my first interview, I had the privilege to do a phone interview with Mr. Ed Rotberg, programmer of the Atari videogame Battlezone. This interview gives more detail as to what went into the game as well as how all the parts integrated together.

ER : I was wanting to get my degree in biochemistry since that was an area I was sure I could start a career. Since I did so well at chemistry, I tested out of my freshman year and advanced straight to organic chemistry along with a lot of medical majors. After finding the course to be an extreme challenge to keep my grades at least at a "C", I looked to other avenues. I had also taken a computer

Flyer from Arcade-Museum.Com

programming course in ALGOL and really enjoyed it. I transferred to the University of Michigan to go into computers but did so as an Electrical Engineering (EE) major. By my junior year, they had created the Electrical and Computer Engineering major which fit my curriculum and intent perfectly so I transitioned to that receiving my BSEE.

OSG: *After you got your degree, what jobs did you have before you joined Atari in 1978?*

ER: I started working for TI out of Austin, Texas. I was part of the team that programmed the operating system on their supercomputer. Not wanting to travel as much, I left there and headed to Rockwell where I did programming for MGD Graphics on photo typesetting machines. I then went to GD Searle Pharmaceuticals, the HUGE pharmaceutical corporation, as the database administrator. I was then transferred to the Science/Research division where I programmed the hardware in assembly on an SBC 80s (single board computer) to interface lab equipment for real-time data collection on a Xerox Sigma 7 computer.

OSG: *Since Howard Delman developed the Vector Generator, it seems that Atari was ready to utilize it. How did they settle upon a tank game?*

ER: Since I was new at Atari, I didn't attend any of these "brainstorming" sessions. What I did contribute to was to choose a game from those that were suggested, and I chose to work on Battlezone.

OSG: *It seems, though, that 3D vector graphics weren't really a new thing. Didn't Cinematronics develop their own 3D vector generator?*

ER: Yes they did. Our Vector Generator was created as a direct response to theirs since they got theirs out first.

OSG: *What was your primary responsibility during this project?*

ER: I was in charge of programming the 6502. This was the main CPU that controlled how the other components would behave. All this programming was done in assembly.

OSG: *Why did you use the 6502? Wasn't the Motorola 68000 and the Intel 8086 or 8088 available at that time? Plus, didn't they have a bit more horsepower?*

ER: The 6502 was more than adequate to handle this game. In addition, those chips you mentioned were significantly more expensive than the 6502 and the big thing we always wanted to do was keep the cost of the components as low as possible.

OSG: *Can you expand a bit on the components and how they all worked together?*

ER: Sure. The 6502 processor was the main processor that ran things. Game data, which consisted of the vertices of the various objects, was contained in the ROM chips. The main processor would send this data to the mathbox. The mathbox consisted of four or eight, I don't remember, AMD 2901 ALU processors that took this information to transform the 3D space coordinates of a series of points into screen space from the viewers perspective (NOTE: Further information confirms that it is four processors). Mike Albaugh was the one who programmed the processors while Jed Margolin was the one who created the 3D math that allowed the transforms. In addition, Jed came up with the idea of changing the coordinates from a 3 x 3 to a 2 x 2 array for greater speed. This transform information was sent back to the main processor which then used a jump (JMP) instruction to the Analog Vector Generator which, by using double buffering, displayed the beams on the screen.

(A brief explanation of double buffering. This is a method whereby one set of display memory instructions is drawn on the screen while a new set of instructions is being written to a second display memory. The beam displays the instructions that are in one memory while the game is writing instructions into the other memory so that the next screen can be displayed as soon as the current one is complete. Like a movie which uses separate frames, these screens go back and forth rapidly enough to simulate movement and motion. Instead of screens, the game uses the beam to display on one screen while writing on the next screen to be displayed).

OSG: *When the shapes were displayed on the screen, was some sort of shape table utilized or something else that allowed scaling of the objects to achieve the 3D effect?*

ER: No, the mathbox was what allowed the already defined vertices to be transformed. In addition, information was passed back to the main processor in regard to varying the intensity of the beam to give the illusion of whether an object was near or far away. Although rotation was achieved by rotating on a Y axis, it was still done on the X axis. This was necessary due to using 2x2 transforms as opposed to 3x3 and 4x4 transforms.

OSG: *Was the missile hard to do? Was the collision detection easy or hard?*

ER: The missile itself wasn't that hard to do. All that was required was putting in the coordinates of movement. The tougher part was doing the collision detection. This was not limited to the missile but also to hits on other objects like enemy tanks. Sometimes the collision detection would fall behind to a point where an apparent shot went through the enemy because the next screen was already drawn but not shown yet making the shot a miss according to the program. It didn't happen often and sometimes it was frustrating trying to tweak the collision detection. We actually had to address this issue and fix it so it would NOT happen. Having a shot go through a tank was not acceptable.

OSG: *How many objects were you able to display on the screen at one time before any lag started to occur?*

ER: Don't think about this in terms of objects being displayed. Instead, we measure the amount we can display by how many inches/meters of beam being displayed at one time on the screen. As for that answer, I don't know off-hand as to what that length would be.

OSG: *For the background, was that also created using data and the mathbox?*

ER: No, I was able to program the background directly into the 6502 processor.

OSG: *Of course we know the story of the exploding volcano and Owen Rubin. Where was this extra code added?*

ER: Yeah, Owen would come by my office daily and nag me about making the volcano explode. One day when he came by I told him if he wanted the damn thing to erupt, he needed to give me the code to do it. The next morning, there was a page with the code on it. I entered the code on the 6502 and the volcano was now erupting.

OSG: *Overall, how much coding went into this project?*

ER: It was under 4K of code for both the data and the programming itself (referring only to the 6502 code. The mathbox code was smaller than the 6502 code due to smaller requirements).

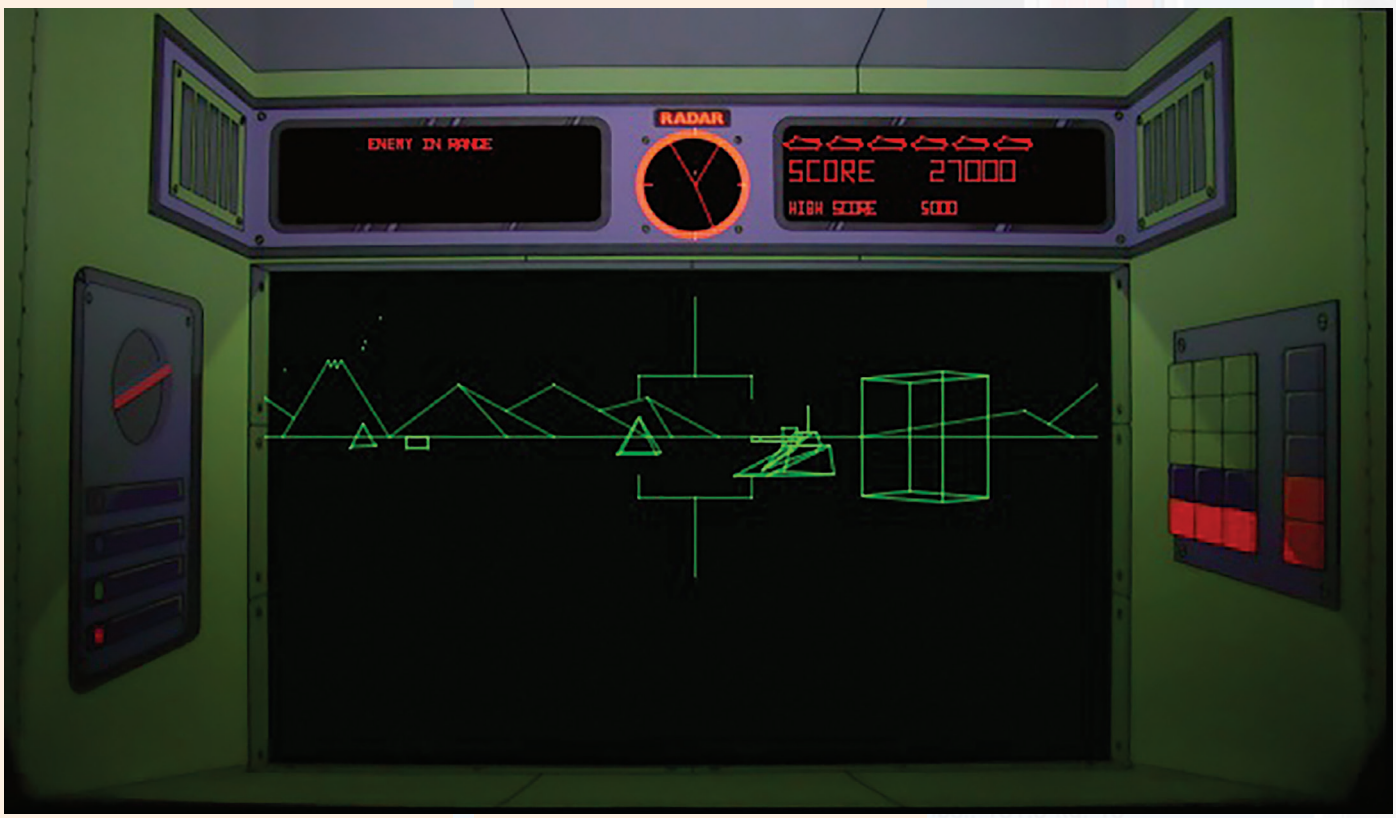
Again, the least amount of code and chips used, the cheaper it was to manufacture.

Below, is a snippet of code from the main 6502 processor that ran everything:

```
8AB4  10 B8     BPL $8A6E
8AB6  A5 DE     LDA $DE
8AB8  F0 32     BEQ $8AEC
8ABA  A9 20     LDA #$20
8ABC  99 70 02  STA $0270,Y
8ABF  A5 D9     LDA $D9
8AC1  99 71 02  STA $0271,Y
8AC4  A5 D5     LDA $D5
8AC6  8D 68 18  STA $1868
8AC9  A5 D6     LDA $D6
8ACB  8D 69 18  STA $1869
8ACE  A5 D7     LDA $D7
8AD0  8D 6A 18  STA $186A
```

OSG: *I saw pictures of the boards that were used for the prototype Bradley simulators. How involved were you with those?*

ER: Well, you can see from the pictures all the jumpers going from the chips plus an extra board for their specifications.



It was a contractor that wanted us to try this. Only two systems were ever created and they were both prototypes, and this project was never put into production.

After a little bit of chatting about his knowing Nolan Bushnell and other Atari members, we concluded the interview. I thanked Mr. Rotberg profusely for the time he gave to me and answering my questions. He did state that I managed to ask a few questions that he had never been asked before, which was very kind. Mr. Rotberg's passion toward this project was very evident by the way he spoke so proudly about it, and he also iterated that this was a team effort, and he was only one of the members who made this happen. I learned a lot from this interview and hopefully I will get to chat again with Mr. Rotberg on other projects on which he previously worked.

I then contacted Mr. Owen Rubin (of Major Havoc fame and "volcano eruptor" creator) to see if he happened to have a copy of the code for the volcano erupting. This culminated in a phone interview with Mr. Owen after he asked if I wanted to know about things that weren't put into the game.

Before we talked about that, I asked him about how he got involved with computers.

OSG: *When did you first get involved with computers?*

OR: It would have been in 10th or 11th grade. I worked on a Bendix G15. It was a first-generation computer running on tubes and the memory was actually a magnetic drum that had 1800 memory locations on it. It's output was a typewriter which wasn't that fast. It was

on this system I wrote my first computer game, Tic-Tac-Toe, which was probably as complex a game as this computer could accomplish.

OSG: *Where did you got to college and did you major in computers?*

OR: I went to the University of California in Berkley. It was there that I majored in computers. I got to work with the IBM 1620, CDC 6600 (upgrade from the CDC 6400), Xerox XDS 920, DEC 1145, and DEC 1170 (both time share systems) to name a few. I also worked on a Meta-4, which emulated other systems. I designed several different programs, either through punchcards or through the use of emulators of other systems. I graduated in 1976 with my BS in Electrical Engineering Computer Science (EECS).

OSG: *What did you do after you graduated from college?*

OR: I was one of the first five programmers hired by Atari. I was interviewed for a hardware engineering position. When I was turned down, I explained that I was interviewing for a Software Engineer position. I was interviewed again and I was hired as a programmer and game designer. At Atari, although we may have been hired for something specific, we still assisted in other areas.

Mr. Rubin stated that he shared a lab with Mr. Rotberg and that their chairs were almost back to back. He recalled many people coming in to play Battlezone as it was being developed. He also stated that he did nag Mr. Rotberg about making the volcano explode. In very colorful language, according to Mr. Rubin, Mr. Rotberg told him if he wanted the volcano to explode, give him the code to do it.

Now, on to what wasn't included in the game. Mr. Rubin stated that he had an idea for Battlezone to not only be for daytime but also for nighttime warfare. His idea was this: As the game progressed, the Earth would set behind the horizon. This would progressively make the playing field look like night to make the game harder for people who played too long. In this dark environment, Mr. Rubin had an idea for making the vectors dim out as nighttime approached. The only things the player would see would be the shots, the missile's shadow, and the volcano in the background, to name a few of the features. It was decided, at the time, that adding this feature would be considered as "cheating" by the game. Years later, Mr. Rubin stated that he and Mr. Rotberg agreed that this feature should have been added and it would have been possible without adding any real overhead to the game.

To get a better understanding of the mathematics behind the mathbox, I contacted Mr. Jed Margolin via e-mail and he was kind enough to give me some articles he had written on the subject. The articles are located here: http://www.jmargolin.com/vgens/vgens.htm and http://www.jmargolin.com/uvmath/uvmenu.htm. On Battlezone, he did the mathematical formulas for the mathbox. Later, he would be heavily involved in the next generation of XY arcade games, including Star Wars and the unreleased Tomcat. In addition, he also submitted several patents as an independent inventor for various things, all of which can be found on his site www.jmargolin.com. He stated, "my most favorite patent is: U.S. Patent 9,784,449 Flame Sensing System issued 10/10/2017 to Margolin. http://www.jmargolin.com/flame/flamepat.htm. This is for a new and improved flame sensing system for gas furnaces and the like. I became interested in gas furnaces because the propane furnace in my attic started having problems. I discovered how the flame sensing system worked and was greatly offended by how primitive it was."

Another interesting tidbit of information Mr. Margolin provided was that he and Mr. Rotberg were students together. According to Mr. Margolin, "I first met Ed Rotberg at the University of Michigan where we both went. We had a class together in Classical and Statistical Thermodynamics. On my first day at Atari (several years after Michigan), imagine my surprise at seeing Ed again, who had started working at Atari only a week or two before."

The next person I did a phone interview with was Michael Albaugh, one of the designers of the mathbox.

OSG: *When did you first get interested in programming?*

MA: The summer between 11th and 12th grade, I took a class at the local community college. Computers were something I had read about, but never touched. My first computer was an IBM 1440, the "little brother" of the IBM 1401, and ours was later upgraded to a real 1401. They were similar from a programmer's point of view, but had different I/O. I later attended U.C. Berkeley and got my bachelor's in Computer Science.

OSG: *When did you first start working for Atari?*

MA: In March 1976, I went to work for Atari and worked on various projects which included Drag Race. On Drag Race, hardware quirks made it impossible to set the "Christmas Tree" countdown vertically. I later discovered that other racing games, later on, imitated my horizontal lights.

OSG: *Since Cinematronics created their vector generator in 1978, it seems the push was on for Atari. Did you have any part of that?*

MA: No, Howard Delman was the one who took care of the vector generator. The first two games that used it were Lunar Lander, programmed by Rich Moore and Asteroids, programmed by Ed Logg.

OSG: *When did you first become involved with Battlezone?*

MA: I was approached to work on a math-coprocessor that would use formulas created by Jed Margolin that would create a 3D, wire-frame environment onto a 2D screen. This would involve mostly drawing on the X axis with not much rotation on the Y axis. In essence, the 6502 didn't have a strong enough math processor, so the "mathbox" would supplement the 6502 in generating the vectors needed for the vector generator.

OSG: *How did the "mathbox" do the calculations?*

MA: It was essentially a 16-bit processor made of four 4-bit "slices" (AMD 2901). The 6502 would store data by writing to one of 32 addresses which would start at a specific instruction. Many of these simply stored the incoming data in a given register, but some would start more complex calculations like a 2x2 matrix multiply. When it finished, it halted and the 6502 could notice

that and "unload" the registers that had the result. It wasn't a full-on computer and could not do I/O of its own. The instructions were 24 bits wide, more like microcode, and there were 256 of them, including a small self-test. Most of the code, of course, was to implement Jed Margolin's algorithm. It helps, when trying to understand the code, that X and Y were from what I would call an "architect's perspective", with X going left to right, Y going towards or away from the viewer, as a 2D map would have it, and Z was height. Today's conventions are different.

Below, is a snippet of code from the "mathbox" that did the vector calculations:

```
654 66F8 BE 12 1D SUBS RZH,X3,JPL ;IF X=< ZH THEN (X3,Y3)NOT IN WINDOW
655 6700 FE 12 1D SUBS Y3,X3,JPL ;IF X=< Y THEN (X3,Y3)NOT IN WINDOW
656 6708 EF 10 00 ADD X3,Y3,QREG ;IF -X >= Y THEN (X3,Y3)NOT IN WINDOW
657 6710 00 22 1D SUBS Z,Q,JPL
658 6718 E7 C0 30 ADD ZA,X3,X1,RAMF ;X1=X3, Y1=Y3
659 6720 F8 C0 30 ADD ZA,Y3,Y1,RAMF
660 6728 DA 00 90 11$: LJT CLIP ;N=N-1
661 6730 06 11 3C DEC RN,RAMF,JPL ;LOOP TIL N=-1
662 6738 08 18 10 ADD Z,Y1,STALL ;STOP
663
664 6740 E4 C0 30 14$: ADD ZA,X3,X2,RAMF ;X2=X3,Y2=Y3
665 6748 F5 C0 30 ADD ZA,Y3,Y2,RAMF
666 6750 E5 00 94 JMP 11$
```

Mr. Albaugh and I discussed him being one of the first programmers at Atari and what it was like as new people came aboard. Mr. Albaugh said that the atmosphere was very much geared toward being creative, but only to the point of not costing too much. The engineers, programmers, and other staff had to learn to milk the most out of the hardware they could since more hardware was equal to more money spent per unit. I thanked Mr. Albaugh for his time and I definitely want to speak with him again about other projects in which he was involved. According to Mr. Margolin, Atari's only patent resulting from Battlezone was Michael Albaugh's U.S. Patent 4,404,629. You can see it here: http://www.jmargolin.com/patents/ataripats/pat4404629.pdf

Howard Delman was the creator of the vector generator that would be the beginning of Atari's foray into the vector arcade world. Mr. Delman didn't do much with computers in high school. He attended Rensselaer Polytechnic Institute (RPI) and received a bachelor's in chemistry where he worked on the IBM 360. He then obtained his masters in instrumentation from the University of California in Santa Barbara. After graduation, he went to Atari and worked on various projects until he was tasked with creating a Vector Generator in response to Cinematronics Vector Generator created the year prior. Atari had a development group in Grass Valley, California that had laid out the design of a vector generator. Howard turned their design into a manufacturable product, and it became the platform for all of the vector graphics games to follow. The first game, created by Mr. Delman, using this new technology, was Lunar Lander. Lunar Lander sold a respectable number of units, so a new project was planned. Asteroids, created by Ed Logg, became a monster hit for Atari. The Vector Generator (both digital and analog) would play a big part in many of the wireframe games that Atari launched, and the design would be improved upon as time went on to include color and better 3D math crunching. The Vector Generator worked on the principle that it shared RAM with the 6502 and it used basic instructions to execute the command to draw the vectors.

I would again like to express my deepest, and most profound thank you to Ed Rotberg, Michael Albaugh, Jed Margolin, and Owen Rubin for taking the time from their busy schedules to sit down with me and get "nerdy" with regards to Battlezone. I know I learned a lot, and it seems that my other interviewees learned a bit more about each other. This was a fun project and I look forward to the next arcade game!

BATTLEZONE

Project Leader: Morgan Hoff

Programmer: Ed Rotberg (Game Play, also the tank treads)

Hardware Engineer: Jed Margolin (3D algorithms, Object Digitization, Hardware Sounds, "Moon")

Technician: Doug Snyder (also hardware design)

Bit Slice Math Box: Michael Albaugh and Dan Pliskin (For his work Mr. Albaugh received U.S. Patent 4,404,629 issued 9/13/83 Data Processing System With Latch For Sharing Instruction Fields)

Analog Vector Generator Design: Howard Delman

Design of 3D Objects: Roger Hector

Volcano: Owen Rubin

Moon: Jed Margolin. (At the time, the game was going to be called Moon Tank, which meant that the object in the sky would be the Earth, so I looked in my Almanac and used the East coast of Australia as a model. -JM)

Radar: (At one of the early game reviews, Gene Lipkin objected to the radar because it looked like the radar in Subs. Since Subs had not been a successful game, Gene was afraid people would associate the radar with Subs, thereby dooming Battlezone. To give it a different appearance, Ed changed the radar so that it scanned from side to side. It looked so dumb that Gene relented and allowed us to restore the original radar.-JM)

Engine Sound: Jed Margolin. (I used two counters with slightly different counting periods and summed several outputs to produce a somewhat disreputable waveform. Since the counters had different periods they produced a beat note when summed. As the frequency of the counters was increased, the beat note also increased. This is what makes the engine throb. The clock was generated by a 555 and had only two frequencies. To control the frequencies I used a circuit to shift the 555's threshhold voltage. This was done with a slow ramp so that the engine sound changed smoothly as it changed speeds.-JM)

Source for above: "The Secret Life of Vector Generators" (2003). Retrieved from http://www.jmargolin.com/vgens/vgens.htm

The Adventures of Stuart Smith

EARLY ADVENTURE GAMES

By Bill Lange

Stuart Smith is the legendary game designer and programmer of a number of influential, early to mid 1980s, computer role playing games, including: FRACAS, Ali Baba and the Forty Thieves, The Return Of Heracles, Adventure Construction Set and Rivers of Light (included as a sample game in ACS). His games were known for their classical mythology, descriptive manuals, multiplayer turn-based game play as well as the plethora of descriptive words during combat to describe hits, not unlike the "KAPOW!"s and "ZZZZZWAP!"s of the 1960s Batman TV show.

FRACAS
QUALITY SOFTWARE, 1980

Stuart Smith's first foray into game programming was FRACAS, an adventure game for the Apple II. It was first released by Smith's own company then later re-released by Quality Software in 1980. It is stated on the FRACAS manual cover that the game supported "any number of players", when in actuality, the game supported up to eight players or in-game characters.

FRACAS is a Dungeons and Dragons-type game using a multiplayer turn-based game mechanic. The video display used simple but crude colored-pixel graphics and text. There isn't any real goal to the game other than to explore the unknown, fight enemies, collect wealth, increase your character's abilities and survive...not unlike real life!

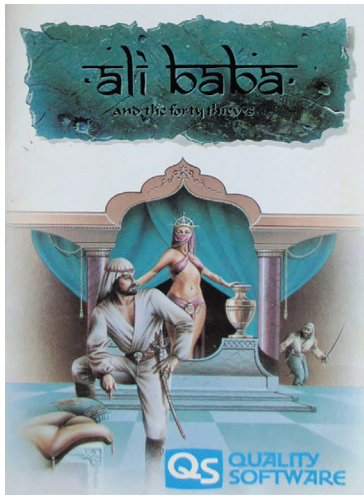
Today, FRACAS can be played using an in-browser Apple II emulator at archive.org (just search for FRACAS and find the Apple II version). The detailed game manual is also worth a read.

ALI BABA AND THE FORTY THIEVES
QUALITY SOFTWARE, 1981

Stuart Smith's second game, Ali Baba and the Forty Thieves, was a 2D computer role playing game also released by by Quality Software in 1981. It was initially released for the Apple II and Atari 8-bit computers. Smith's wife suggested the classic Arabian-themed story of Ali Baba.

The player assumes the role of the protagonist and interacts with a cast of characters as he travels throughout the game world, with or without companions, including a city and its surrounding environs in order to rescue the Sultan's daughter, a princess who has been kidnapped by a band of ruthless thieves.

In the book The Book Of Adventure Games by Kim Schuette, the author states that Ali Baba and the Forty Thieves is FRACAS, with a new graphical skin and other modifications. The game is really a leap forward from FRACAS. It weaves a rich tapestry with cursive character fonts and an appropriate musical score. Instead of colored pixels, the game uses character-based or tile-based graphics for a more detailed world map, player-characters and other objects.



The game also uses a similar multiplayer turned-based mechanic previously used in FRACAS, though it now supports anywhere from one to seventeen players or in-game characters. The Atari 8-bit version supported up to four joysticks on the Atari 400/800 computers. It was one of only a few games that took advantage of the four controller ports in the early Atari 8-bit computers. Sadly, later versions of the Atari 8-bit computer line would be limited to only two controller ports.

Ali Baba and the Forty Thieves can also be played using an in-browser Apple II emulator at archive.org. If you have an Atari 800 and a group of friends, try playing it on physical hardware using four joysticks. Like the Atari arcade video game Gauntlet (itself based on the earlier Atari Program Exchange game DANDY), this game is much more fun to play with a group of friends.

Interestingly, the manual suggests multiple ways to play the game, such as having lead character Ali Baba go it alone without any help from any of the other characters, or playing the game without harming any living thing. It also includes some game design information such as character and probability tables.

THE RETURN OF HERACLES
QUALITY SOFTWARE, 1983

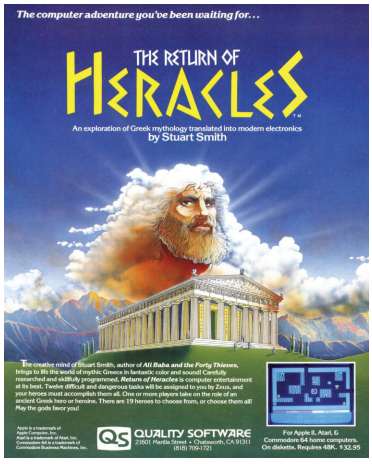
Next up is Stuart Smith's The Return of Heracles. This game is also a 2D computer role playing game. It was released by Quality Software in 1983. It was available for the Apple II, Atari 8-bit and Commodore 64 computers.

Smith's interest in classical Greek mythology led him to the story of Heracles. In this game, you can choose to play a character from a selection of one or more heroes from Greek myth and you

are given twelve tasks to complete.

Other than the Greek-theme and storyline, the game play is very similar to Ali Baba and the Forty Thieves. Again the richly detailed manual, which contains probability tables and other information describing how the game engine works, is also worth a read.

Jamie Lendino, author of Breakout - How Atari 8-bit Computers Defined A Generation, states in his book that "Combined with comprehensive documentation and a detailed graphical presentation, The Return of Heracles is an excellent game, even despite the unusual interface".



There is a review (and colorful ad) for The Return of Heracles in the April 1984 issue ANTIC magazine. The review states that it "...contains enough background on Greek mythology to be truly informative." I guess that makes it an educational game as well.

For a quick game, The Return of Heracles can also be played using an in-browser Apple II emulator at archive.org.

ADVENTURE CONSTRUCTION SET ELECTRONIC ARTS, 1994

Stuart Smith's Adventure Construction Set was published by Electronic Arts, Inc., and released in 1984. It was available for the Apple II, Commodore Amiga, Commodore 64 and DOS-based computers. Unfortunately, Adventure Construction Set was never released for the Atari 8-bit platform, my computing platform of choice.

Adventure Construction Set was designed to make tile-based graphical role playing adventure games similar to Smith's earlier games Ali Baba and the Forty Thieves and The Return of Heracles. It comes with a few pre-created adventures. Rivers of Light is an adventure game by Smith based on Mesopotamian and Egyptian mythology. Land of Aventuria was written by Don Daglow, another pioneering game programmer in his own right (see my earlier article on Early Computer Baseball in issue #5 of OSG). These two tutorial adventures help teach you how to use the tool to create various adventures. According to Smith, "Creating and playing adventures is like being all the Greek gods at once. You make the world, then put on mortal costumes and become part of it."

In 1985, Electronics Arts held a contest for the best adventures created with Adventure Construction Set. Entries had to be received by December 30th, 1985. Three winners were selected, one each in the following categories: Fantasy, Science Fiction, and Contemporary. Each winner received $1000.

AGE OF ADVENTURE ELECTRONIC ARTS, 1986

Smith's earlier games, Ali Baba and the Forty Thieves and The Return of Heracles were re-released by Electronic Arts in 1986 in a gatefold sleeve, typical of EA's games at the time, called Age of Adventure. The package contained a double-sided disk containing Ali Baba and the Forty Thieves on one side and The Return of Heracles on the other. Unfortunately, the richly detailed game manuals were missing from this package. It was available for the Apple II, Atari 8-bit and Commodore 64 home computers.

Both Ali Baba and the Forty Thieves and The Return of Heracles are two of the most well-designed and mostly underrated early computer role playing games. Smith obviously spent a great deal of time researching Arabian, Greek, Mesopotamian and Egyptian mythology for his richly detailed games and manuals. Along with the creators of Wizardry, Ultima and The Bard's Tale, Stuart Smith is one of the great computer role playing game designers of the 8-bit era. Smith left the computer game industry in the late 1980s.

Convention Update: Sept-Oct 2018

RETRO WORLD EXPO, GALAXIES OF GAMING, PORTLAND RETRO GAMING EXPO

By Old School Gamer

RETRO WORLD EXPO HARTFORD, CT BY RYAN BURGER

Held at the Connecticut Convention Center in downtown Hartford, the Retro World Expo is an event for anyone in the Northeast that is into retro gaming! It is very easy to get to with a nice spread of hotels in the area and set in an eclectic outdoor park zone downtown with nearby restaurants. This fun event was produced by a trio of "Humble RWX Leaders" (as it lists on their website) Kris Krohn, Bil McKee and Lace Cortez. The hospitality towards all of their exhibitors and attendees did not go unnoticed by those we talked to.

Its main focus is classic and retro gaming, but it also has a nice mix of other "comicon"-type activities like comic books, collectibles, cosplay and more. While we were there for both days of the show (after setting up on Friday), Saturday was the busiest day for everyone at the event. Sunday had a nice pace, where we were able to catch up with some friends we had met earlier in the year.

Although it's in a smaller metropolitan area than some of the other shows we've attended, it has grown nicely in the last couple years since its "humble" beginnings in 2015, and pulls retro enthusiasts from hours around. The special guests that they brought out this year included many of the cast members of Mortal Kombat, popular podcasters such as "Wrestling with Gaming's" Yahel, John Dalia and Pat Conti, from the Video Game Years along with other places, and plenty of others. Plus I got to spend some more time with Tim Kitzrow, the BOOM SHAKALAKA announcer from NBA Jam, Mutant Football League, and more.

There were a lot of free play open gaming on consoles and arcade machines, tournaments on some more popular games, and of course another fantastic expo floor where you could purchase all kinds of things retro gaming and geek!Retro World Expo was my second time in the Connecticut area for an expo and it was a blast, Old School Gamer is looking forward to coming back again next year. Although the dates aren't announced yet, assuming its in early September we are there.

retroworldexpo.com

GALAXIES OF GAMING OTTUMWA, IA BY TODD FRIEDMAN

On the weekend of October 5th, 2018, Ottumwa, Iowa once again celebrated its annual International Video Game Hall of Fame Ceremony as well as the Galaxies of Gaming tournaments and Trading Card awards. This was the second year in a row it was held at the Quincy Place Mall in Ottumwa, Iowa. There were some upper management changes as well as some scheduling changes from the year prio. This change would make the weekend event more organized and spread out so people of all ages could enjoy it.

Ottumwa's Galaxies of Gaming Committee consists of Bill Hoffman, Terry Burtlow, Ginny Burtlow, Michael Dudley, Katie Bride, and Marcus Bennett. The Hall of Fame Committee is made up of Jerry Byrum, Julie Barwick, Bill Hoffman, Angela Hoffman, and Dennis Bartlet. The committee for the Hall of Fame and Galaxies of Gaming are committed to making each year better than the one prior. IVGHOF Head Committee Member Jerry Byrum told me, "Many exciting things are happening with the Hall of Fame. We've recently implemented a Code of Ethics for our Board Members and Inductees, added several membership levels, which will allow access to content based on membership level. We've launched an Ambassador program for all of our Inductees, so you can expect to start seeing a Hall of Fame presence at shows and events around the country. We're also considering various categories of achievements in the Hall of Fame so that we become more inclusive to all types of game play and accomplishments. Many, many changes are coming to our great Hall of Fame which will help us to modernize and fit better with current trends in video gaming. Streaming, a new web presence, a line of merchandise, and much more. We're looking forward to building upon the idea which Walter Day started many years ago as the Father of competitive gaming in the Video Game Capital of the World." With the current team and representatives, I have no doubt the International Video Game Hall of Fame is headed in the right direction.

On Friday, October 5th, the Old School Arcade and Pinball Room opened at 10 AM. The mall would also open up the Video Game Museum that was bigger and better than 2017. The arcade has a larger physical presence, with the addition of significantly more games to its lineup, and the entrance had a good amount of retro console games and items for purchase. There were more pinball machines to play as well as more arcade games to choose from.

Competitions at Retro World Expo

Award presentations in Ottumwa

I was very impressed with the growth of the arcade in just one year's time. It definitely was the busiest store in the mall that weekend. Crowds of people attended the arcade, young and old. They held several arcade tournaments as well, such as Galaga and Donkey Kong. Awards were presented to the finalists.

The Museum was located in a bigger area and had double the items it had in 2017. It really was fun to look at the old Twin Galaxies items as well as retro game systems and memorabilia. There were system as old as the 1970s up to a playable PS4 Virtual Reality System. Displays of iconic games such as Halo and Pac-Man decorated the room. There were displays that included trophies donated by past Hall of Fame gamers. Walter Day, himself, donated his personal award statue he received years back in Fairfield, Iowa. The goal of the Museum is to grow each year, and they certainly seem to be on the right track.

On Saturday, October 6th was the Hall of Fame Induction Ceremony, which was star studded. The class of 2017 was a group of extrodinary gamers and devlopers. The list of inductees were Warren Davis, Justin Wong, Howard Phillips, Joel West, Carrie Swidecki, Michale Klug, and Rebecca Heineman. Joel West, who starred in the documentary, Chasing Ghosts, tells me "The Hall of Fame weekend was a wonderful experience for me. The staff were very accomadating. The beginnings of the Musuem are a great foundation for remembering the past plus the games were a nice 'extra' for all in attendance. I am so glad to have attended."

The Walter Day Achivement Award was presented to David Crane, most famous for creating such games as Pitfall, Freeway and Dragster for the Atari 2600. I asked David what he thought of the weekend event and he told me, "The recent International Video Game Hall of Fame induction ceremony, in association with Ottumwa's Old School Pinball & Arcade, brought together both players and developers of classic arcade and home video games. With its roots in Walter Day's Twin Galaxies world record keeping, the connection with game players and record holders has always been a strong one, but the IVGHOF brings players and game designers together. Players are able to meet with the people behind their favorite games, and game creators like myself get to meet and mingle with fans of our games. My greatest takeaway from this year's event was hearing the impact that video games had on the lives of players - creating memories and bonding with family members over a shared game."

Every Hall of Fame ceremony also inducts games that have been influential in the gaming culture. This year's class of games were Halo, Donkey Kong, Sonic the Hedgehog, and Zelda – Breath of the Wild.

This year also had a special group inducted. ExtraLife is an organization that raises money for charity by playing video games and working with the community. Gamers can go online and stream while collecting money for the charity chosen for that event. They have raised over 40 million dollars to date.

Previous Inductees were on hand as well, such as Billy Mitchell, Lonnie McDonald, and Isaiah "TriForce" Johnson. TriForce was a key person to document this historic weekend. You can see his footage on the Empire Arcadia YouTube channel. I spoke with TriForce and he told me, "Each year, the International Video Game Hall of Fame becomes bigger and bigger and that is because of the history connected to this town Ottumwa, Iowa. People from all over the world who played classic eSports i.e. competitive arcade games, come here to pay homage to the foundation and infrastructure that Walter Day himself laid down that started it all in eSports. IVGHOF preserves this history in its purest form. With its Museum, you're only going to see bigger and better things in the future. I will always support the IVGHOF, its Museum and the Video Game Capital of the World; Ottumwa Iowa."

With the support of the gaming community and past and future hall of famers, The International Video Game Hall of Fame will be the place where everyone will go to be a part of history and gaming preservation along with making wonderful memories with their family. You can get more information on the Hall of Fame at www.ivghof.info.

ivghof.info

PORTLAND RETRO GAMING EXPO PORTLAND, OR BY BILL LANGE

The Portland Retro Gaming Expo 2018 (PRGE) took place at the Oregon Convention Center in downtown Portland, Oregon the weekend of October 19-21, 2018, and Old School Gamer was there! It was an cheap and easy light rail ride from the airport to the convention center/hotel area. The event itself cost an inexpensive $35 for a weekend pass. This is one of the best bargains in the retro gaming scene.

The PRGE arcade/gaming floor opened on Friday afternoon. There were arcade video game cabinets, pinball machines, as well as many different gaming consoles and computers...all set up on free-play! There was also a DJ "spinning" tunes as well as gaming contests for a variety of games.

After a few hours of gaming on the expo floor, I hopped on the light rail and transited over to the Ground Kontrol Classic Arcade (www.groundkontrol.com) in nearby Old Town Portland. This bar/arcade has a fabulous Wargames' War Room motif, and an amazing lighted WOPR-themed main bar. If you are in the area, head on over with a "pocketful of quarters". It is definitely worth a visit (or two).

Saturday morning brought large crowds and the opening of the huge exhibitor hall. The exhibitor hall was nothing less than outstanding. There was an amazing selection of both pre-and-post Nintendo (NES) consoles, computers and software, as well as t-shirts, books, Funko Pop! figures, Perler Beads pixel art, and more, available for sale. The AtariAge (AA) (www.atariage.com) booth had a large selection of new Atari 2600, Atari 5200, Atari 7800, and Atari Jaguar game titles for sale. They were also demoing the soon-to-be released Wizard of Wor (with multiplayer AND speech utilizing optional hardware) for the Atari 2600 and Mr. Do! for the Atari 5200. A huge thank you to Albert Yarusso of AA, who graciously made free AA-branded Name Badges for AA fans who were in attendance.

There was also a full schedule of panel sessions and speakers! I didn't get to attend all of the sessions, but the ones that I did attend: Atari & Friends Act I, Atari & Friends Act II, Intellivision Entertainment Keynote Address, 8-Bit Apocalypse: The Untold Story of Atari's Missile Command, and Atari & Friends Act III, were all excellent. Being a large show on the West Coast, PRGE attracts many of the early industry luminaries as well as a large assortment of current content creators. Pitfall! designer and Activision co-founder David Crane was one Kitchen short of having "... three Kitchens going" during the Atari & Friends Act I session. Howard Scott Warshaw is not only

entertaining when he is on stage talking, he is particularly funny when he is heckling his former Atari co-workers from the audience. Tommy Tallarico's Intellivision Amico talk was infectious. He really exhibited his passion for the Intellivision brand (www.intellivisionentertainment.com). A congratulations to Tommy, who received his own Video Game Trading Card from OSG and competitive gaming pioneer Walter Day for his contributions to the hobby.

The OSG booth had an assembled Arcade1Up (www.arcade1up.com) home arcade game cabinet on display throughout the weekend and gave it away to one lucky PRGE attendee on Sunday afternoon. It saved us from carrying it home!

For me, the exhibitor hall and the full schedule of great panel sessions were the highlight of the event. I wish I had time to attend more of the offered sessions. This was, and has always been, one of the best shows that I've attended. I had a great time and I'm already looking forward to going again next year!

retrogamingexpo.com

CLASSIC TETRIS WORLD CHAMPIONSHIP 2018 (AT PGRE) BY STEVE DELUCA (TOTALRADNES)

To a lot of old-school gamers the Portland retro gaming Expo is the place to meet your YouTube idols and to score the best deals on gaming rarities. A select few however, traveled from all corners of the globe to flex their organizational skills, in a battle of blocks and lines, at the 9th annual Classic Tetris World Championship (CTWC).

Going into this year's tournament, there was an anticipation brewing with the news that some scary talented newcomers would be making their way to Portland. Jonas Neubauer, 7 time champion, knew he would be up against new blood that would test his limits as a traditional DAS player. Recently two unknown hyper-tapping players, GreenTea and JDmXFL_, showed up on the Tetris streaming scene demonstrating moves and scores that were thought to be impossible before now. Just weeks prior to the tournament, 16 years old Joseph Saelee (JdMfX_), achieved what was thought impossible. Using the hyper-tapping technique made famous by Thor Aauckerlund (1990 Nintendo World Champion), Joseph grabbing 21 lines into the kill screen reaching level 31

CTWC 2018 will be known as the battle of DAS vs. Hyper-Tapping.

Traditional DAS playing abuses a programing characteristic, allowing players to start moving pieces before they even appears on screen. DAS players must play ahead of the game in order to maintain a "DAS charge". Once they lose this charge, the next piece becomes sluggish rendering it almost impossible to move to either side of the field at high speeds.

Hyper-tapping, the method of rapidly mashing the D-pad, ignores the programmed speed of the pieces moving left and right, manically forcing the piece over with every tap. As witnessed at this tournament, hyper-tapping is able to manipulate each tetrimino in an aggressive and unnatural way. Dedicated hyper-tapping players often hold their controllers in an unorthodox way, using the agility of their fingers instead of thumbs. Until recently with the introduction of Koryan from Japan in 2016, dedicated hyper-tapping has been a rarity.

Day 1 - Qualifying: Players are ranked by high scores. Close to 100 players take turns giving each game their all for a top score that will push them to the top of the tournament bracket. Throughout the day, newcomers Joseph Saelee and GreenTea displayed remarkable game play with the charisma to match. Veteran players like "Boom Tetris 4 Jeff" Moore and Matt "The People's Champ" Buco stare at the big screen, in awe of the maneuvers these hyper-tapping rookies are pulling off. By the end of Qualifying we had witnessed 7 players hit a maxout score (999,999) 4 of which (Koryan, GreenTea, Jonas, and Harry Hong) displaying this feat twice that day. Before CTWC 2018, there had only been a handful of maxout qualifying scores, first of which was by Harry Hong in 2016.

Closing out the Qualifying Rounds on Saturday, the legend himself Walter Day held a Tetris themed Trading Card Awards Ceremony, honoring Jonas Neubauer, Robin Mihara,

(L) Intellivision's Tommy Tallerico, (R) National Video Game Musem, (below) Portland Gaming Floor

Svavar Gunnar, and Vince Clemente with their own Walter Day Trading Card, presented by Old School Gamer Magazine. A ceremony that will be documented in gaming history, but more Tetris history was still to come.

Day 2 – Tournament Time: As the top 32 best classic Tetris players prepare themselves for a day of head to head / no holds barred NES Tetris, Sergio and The Holograms warm the crowd with a heavy metal rendition of the Korobeiniki (Tetris theme song). There was a buzz in the air and on stream as the tournament kicked off, Rounds 1 and 2 of the brackets played out with as much intensity as we've seen in the finals of prior years. With all the heckles and cheers, the other Expo attendees haggling vendors must have thought there was a wrestling match happening in the other hall. These Tetris gladiators must prove even under the pressure of audience banter, that they can still keep complete control of their focus.

Joseph and GreenTea quickly emerged as fan favorites. GreenTea with his enormous smile and level 19 center well shift, along with Joseph's remarkable ability to play strong constituently into the highest levels. For once there was doubt that Jonas would dominate yet again. Higher in the seed due to qualifying scores, GreenTea's path to the finals wasn't as daunting as the path laid out for the 16 year old, facing Harry Hong (2014 CTWC Champion), then Koryan from Japan, and then Jonas "The Goat" Neubauer. GreenTea was stopped shot in the

semis by Jonas but didn't go without a fight, reaching scores in the high 800,000s.

Joseph could not be stopped. Match after match he crumbled men who once stood at the top.

In the Finals of rookie vs. veteran, David vs. Goliath, hyper-tap vs. DAS, the unthinkable happened. Newcomer, 16 year old, hyper-tapping high school student, Joseph Saelee swept 7-time Classic Tetris Champion Jonas Neubauer winning the first 3 matches in a best of 5. As the curtains fell on their screens, the crowd roared with excitement. To be in that room at that moment, there was this overwhelming feeling that I had just witnessed history in the making.

As his eyes welled up with joy and the emotion choked his words, Joseph humbly bowed his head lifting his well-earned golden T-piece trophy with pride. A new champion has arisen.

Following a day of overwhelming excitement, I was invited to the Tetris after party to celebrate all that has happened. This community Tetris Elite is unlike any competitive group I have ever seen. The comradery between players is rich with friendship. Joseph, our new champion, was welcomed with open arms, given unlimited pizza and soda. To an outsider, it would have been difficult to spot the winners, because all were carrying on with the enthusiasm of champions. Throughout the night there would be dancing, drinking, hyper-tapping showdowns, finishing up with an elders arm-wrestling battle between long time rivals Harry Hong and Jonas Neubauer.

When I asked Jonas if he planned to be hyper-tapping by CTWC 2019, he smoothly answered, "I don't expect to, no." There may still be hope for traditional DAS playing.

In the viral wake of this year's Classic Tetris World Championship, "Ecstasy of Order" documentarians and founders of the CTWC, Vince Clemente and Adam Cornelius, along with CTWC co-organizer Trey Harrison envision the CTWC becoming one of the first eSports held at the Olympic games. Nonviolent in nature and already competing on a world scale, Classic Tetris would make an excellent addition to 2020 Olympics.

thectwc.com / retrogamingexpo.com

2019 OSG EVENTS CALENDAR

OVER 20 DATES ARE PLANNED FOR 2019... THIS IS JUST THE BEGINNING!

WINTER/SPRING

JANUARY 5-6
LA Fairplex, CA • Retro City Festival • *retrocityfestival.com*

MARCH 15-17
Banning, CA • Arcade Expo • *arcadeexpo.com*

MARCH 18-22
San Francisco, CA • Game Developers Conference • *gdconference.com*

APRIL 12-14
Milwaukee, WI • Midwest Gaming Classic • *midwestgamingclassic.com*

SUMMER

JUNE 8-9
Washington, DC • All Star Comicon • *theallstarcomiccon.com*

JUNE 11-13
Los Angeles, CA • E3 • *e3expo.com*

JUNE 21-23
Philadelphia, PA • Too Many Games • *toomanygames.com*

JULY 12-14
Atlanta, GA • Too Many Games • *southernfriedgameroomexpo.com*

JULY 27-28
Austin, TX • Classic Game Fest • *classicgamefest.com*

Reading the Classics

FROM BACK IN THE DAY TO TODAY

By Leonard Herman, the Father of Video Game History

Ever since the world's first two videogame magazines, Great Britain's Computer and Video Games and the United States' Electronic Games, debuted two weeks apart in November 1981, printed videogame magazines have basically come in four flavors.

General: The majority of gaming magazines fell under this category and covered all aspects of gaming, including handhelds, and in many cases, computer games. Some of the most popular magazines, including Electronic Games, Electronic Gaming Monthly (EGM), and the aforementioned Game Informer, fall into this category.

Company-specific: This is a magazine that is basically propaganda for the hardware manufacturer and focuses primarily on the games and systems that the company has to offer. Nintendo Power, which was for the most part published by Nintendo, is probably the most well-known example of a company-specific magazine.

Console-specific: This type of magazine was usually printed by an independent publisher but was supported in part by the console's manufacturer. As the name implies, it usually focused on news and reviews for games and peripherals for the specific console that it covered. Some console-specific magazines were even packaged with discs that contained playable samples of upcoming games. The most popular of the console-specific magazines was the Official U.S. PlayStation Magazine.

Retro Gaming: This is basically a subset of the general format except that it only covers consoles and games that are usually more than 25 years old. Some general magazines, including Game Informer and GamesTM offered monthly retro sections. The new kid on the block, Old School Gamer Magazine, falls into this category. The number of retro gaming magazines that have appeared can be counted on one hand.

The first magazine that was devoted strictly to retro gaming wasn't even a professional magazine at all. Classic Gamer Magazine, which debuted in the Fall of 1999, was the self-published brainchild of Chris Cavanaugh, a long-time fan of the original Electronic Games magazine and its editors, Bill Kunkel, Arnie Katz and Joyce Worley. The magazine's articles were interesting and well written, and its format was similar to the beloved Electronic Games. By the end of its eight-issue run, it even included Bill Kunkel as a columnist. Despite its self-published status, the magazine could be found for sale in Tower Records stores. Classic Gamer Magazine could be considered a forerunner to Old School Gaming Magazine. Three of its contributors, myself, Michael Thomasson and Brett Weiss, are regular columnists for this magazine. Classic Gamer Magazine lasted for six issues, with the final edition dated Spring, 2001. However, Cavanaugh issued two free digital-only editions, Volume 2, issues 1 and 2 in April and July of 2004 respectively. And then after a six-year hiatus, the first issue of volume 3 was released in the fall of 2010, also as a free digital download. Although a new issue hasn't been published in eight years, those of us who still view Classic Gamer Monthly as one of the best independent magazines ever available on the subject, are still hopeful that a new one will again suddenly appear.

The first professional magazine about retro games was the British Retro Gamer, which carried a January, 2004 cover date. The first ten issues of this over-sized magazine came with a CD full of shareware games.

In the United States, several slick retro-themed magazines were published over the years, following the success of Retro Gamer. The first was Manci Games, which claimed to be the "First Retro VideoGame Magazine & Price Guide!". Manci Games also introduced two columns that continue today in Old School Gaming Magazine, Michael Thomasson's "Just 4 Qix" and my own "The Game Scholar". Editor-in-Chief Jansen Mercer had big plans for this magazine, which was actually named for his goal. He hoped that the success of the magazine would eMANCIpate him from his corporate job. Alas, the magazine only lasted two issues.

With a cover date of summer 2004, Video Game Collector, debuted shortly after Manci Games. Published by Shawn Paul Jones, this full-color magazine was small-sized (7" x 9.25" – a standard magazine size is 8.5" x 11") and forty-six pages in length. Half of this was dedicated to the price guide, the rest featured reviews of retro games and articles of interest to classic game fans. Each issue also featured a Collector's Spotlight, and the spotlight of the first issue was centered on a Youtube star, the Immortal John Hancock. The magazine went to full-size with issue 5.

The magazine lasted 11 issues, with the final issue being undated but released in 2009.

Video Game Trader, which debuted in late 2007, actually began as a price guide. But the second issue, Volume 2 issue 1, which was published in February 2008, was a full-fledged magazine. Video Game Trader followed an unusual schedule. It was to be published monthly, but would only be available as downloads, except for the quarterly issues (numbers 4,8, etc.), which were available in print. The dimensions of the print editions were even smaller than the original Video Game Collector, coming in at 5.5" x 8.5". Beginning with #9, the magazine was available in print every month, and beginning with issue 13, it went to the standard magazine size. I joined the magazine as editor with issue 13, a position I held for 10 issues. Afterward, the magazine switched back to a download edition only, then stopped publishing after issue 35. However, 35 issues wasn't bad for a magazine that wasn't available on newsstands. It holds the record of being the longest running retro gaming magazine in the United States (to date).

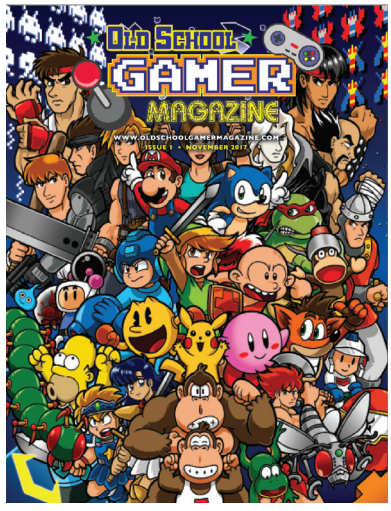
By October, 2013, most of the mainstream videogame magazines in the United States were gone. Gamepro expired in December, 2011, Nintendo Power one year later, and finally Electronic Gaming Monthly in March, 2013. Only Game Informer, which was subsidized by Gamestop, remained. Meanwhile, it was the complete opposite in Great Britain, where videogame magazines thrived. Edge was going strong for over twenty years. GamesTM was about to celebrate its twelfth birthday. And even the retro-themed Retro Gamer was thriving after nearly ten years.

Because of the success of print publications in England, Mike Kennedy, who in March 2008 had founded Game Gavel, an online videogame auction site that provided an alternative to eBay, believed that a print magazine with the right talent and quality could also succeed in the United States.

Kennedy's idea was to assemble many well-known writers from classic videogaming magazines, such as Electronic Gaming Monthly, to produce Retro, a high-quality print magazine that would be aimed towards sophisticated gaming fans of all ages. He began a Kickstarter campaign on October 4, 2013, that sought to raise $50,000. And although many people scoffed at the idea of a new print magazine in a digital age, by the end of the campaign, 2,345 backers had pledged nearly $76,000, which proved that there was a definite interest in such a magazine. In addition, a digital version of the magazine was offered. All print subscriptions included free digital editions, and the digital copies could also be subscribed separately.

The first issue came out in January, 2014. By the end of the year, Kennedy claimed that Retro's circulation was 40,000 readers from 35 different countries. Unfortunately, Retro's release schedule was erratic, and even when issues were printed, many subscribers complained that they never received them.

Despite this problem, Retro may have succeeded. The magazine was carried in Barnes and Noble, which exposed it to thousands of casual magazine readers. Unfortunately, publisher Mike Kennedy decided to overextend himself by announcing a new game console called the Retro Video Game System. This system, and its follow up, the Coleco Chameleon, became the laughing stocks of the retro videogaming community, and Kennedy's reputation in the industry evaporated. In July, 2017, VGBrands, the parent company of Piko Interactive, a developer of new games for old systems, announced that they had purchased the rights to Retro magazine and Game Gavel and that a new issue of Retro would be available in the fall. However, the magazine would only be available in digital format, and if demand for a print edition existed, then a print version would be published. As promised, the digital edition of issue 13 was released in October. Piko Interactive then announced at that time that a print edition of the magazine would be available through Patreon if $5,000 (1,500 subscribers) could be pledged. That issue was finally delivered in July 2018, a year after it was first announced. Now with issue 13 in the can, there has been no word about the digital version of issue 14, which is worrisome, since nearly a year has passed since the last digital issue had been available.



Fortunately, there is Old School Gamer Magazine (OSGM) that you are reading now to fill the gap left by Retro. Founded by Ryan Burger, a successful magazine publisher and game collector, at the end of 2017, OSGM had a similar mission as Retro, to cover games and systems that were more than 25 years old. In addition, the magazine featured articles on retro arcade gaming, something rarely covered in modern magazines. The magazine has consistency from issue to issue, with regular columnists, a free poster of that issue's cover art and a price guide for games to a different retro console each issue.

OSGM followed a different business model than that of Retro. In this case, digital subscriptions were absolutely free. And to get the word out, Burger and his writers attended most videogame conferences to sign up new subscribers. A physical copy of the magazine was handed out for free with every digital subscription placed, and then the subscriber had the option to purchase a physical subscription.

The magazine launched in November, 2017, and follows a bi-monthly schedule, with one new issue being published every other month.

As the world continues to shift to digital, it is refreshing that some publishers recognize that not all readers are interested in this form of delivery. It is fitting that a magazine that covers classic games, also publishes in a classic format.

Leonard Herman, The Game Scholar, is regarded as one of the earliest and most respected videogame historians. The first edition of his book Phoenix: The Fall & Rise of Home Videogames, which was published in 1994, is considered to be the first serious and comprehensive book about the history of videogames. He has written articles for Videogaming & Computer Illustrated, Games Magazine, Electronic Gaming Monthly, the Official U.S. PlayStation Magazine, Pocket Games, Classic Gamer Magazine, Edge, Game Informer, Classic Gamer Magazine, Manci Games, Gamespot.com and Video Game Trader, which he also edited. In 2003, Mr. Herman received a Classic Gaming Expo Achievement Award in recognition for his accomplishments in documenting game history.

Street Fighter II Turbo

By Brett Weiss

My forthcoming book, The SNES Omnibus: The Super Nintendo and Its Games, Vol. 2 (N-Z), is now available for pre-order. The book won't release until April 28, 2019, but I decided to give Old School Gamer readers an advance look at one of the entries.

Since the theme of this issue revolves around fighting games, I selected Street Fighter II Turbo: Hyper Fighting, my favorite game of its type for the console. You're getting the entire entry, which includes my write-up of the game, quotes from outside sources, and an "Insider Insight" from my wife, Charis Weiss. The vast majority of the Insider Insights are from industry figures, but I made an exception with this game as Charis has an interesting story to tell.

You can easily find a Street Fighter II Turbo cartridge for just $10; a complete copy of the game will cost you around $30. Definitely a bargain.

An excellent port of the 1992 arcade game of the same name, Street Fighter II Turbo: Hyper Fighting offers essentially the same fighting action as Street Fighter II: The World Warrior, but you can now adjust the speed of the game from 1 to 10 stars, making the fights faster and more intense. You can also play as one of the four bosses, increasing the number of playable fighters from 8 to 12.

Fighters include Ryu (Shotokan karate), E. Honda (sumo wrestler), Blanka (jungle fighter), Guile (special forces), Ken (Shotokan karate), Chun Li (kung fu), Zangief (wrestler), Dhalsim (yoga), Balrog (boxer), Vega (Spanish ninjitsu), Sagat (Muay Thai), and M. Bison (unknown fighting style). Each character can crouch, jump, flip, block, and do light, medium, and hard punches and kicks, and each has several close throw and hold attacks.

In addition, if you input certain button combinations, the characters can execute special moves. Boss special moves include: turn punch and dash punch for Balrog; claw dive, wall leap, and claw roll for Vega; tiger uppercut, tiger knee, and tiger shot for Sagat; and psycho crusher, scissor kick, and head stomp for M. Bison. The others have such special moves as fireball, hurricane kick, hundred hand slap, rolling attack, lightning kick, whirlwind kick, or spinning clothesline. The following characters have special moves they couldn't do in Street Fighter II: The World Warrior: E. Honda (sumo smash), Blanka (vertical rolling attack), Chun Li (fireball), Zangief (turbo spinning clothesline), and Dhalsim (yoga teleport, where he can instantly teleport himself in front of or behind his opponent). Plus, Ryu and Ken can now perform the hurricane kick in mid-air.

Street Fighter II Turbo: Hyper Fighting
Publisher and Developer: Capcom
Fighting, 1 or 2 players (simultaneous).
1993.

You pick one of the 12 warriors and battle each of the others in a series of one-on-one, best-two-out-of-three fights until only you remain. Or, you can battle a second gamer in Vs. Battle mode, where the computer will keep track of each character's wins, losses, and special K.O.s. You can select your character and the stage where you'll do battle. Each fighter has an energy meter at the top of the screen that is reduced each time the opponent connects with an attack. When a player's meter runs out, the other gamer scores a K.O. You can handicap two-player matches, configure the difficulty of the computer opponent, and play the game with the 99-second timer turned on or off.

Street Fighter II Turbo: Hyper Fighting never made it to the Genesis; fans of that console instead got a port of Street Fighter II: Champion Edition, which Capcom released to the arcades in 1992.

Notable Quotable: "A brilliant conversion and everything a Turbo fan could have hoped for. One of the best games ever to grace the Super NES, but do you want to pay extra for a handful of extras?" - Nintendo Magazine System (1993)

Notable Quotable: "All of the fighters look sharp in their Turbo colors. Though most of the animation is unchanged, several characters—particularly E. Honda—have many new frames of action, even in basic movements. The scenery is similarly buffed-up, with bats hovering in the rooftops of Ryu's stage and more cheerleading onlookers on the boat in Ken's stage...there are many new sound

samples...Capcom has taken its most outstanding title and made it even more outstanding." - VideoGames (September 1993)

Notable Quotable: "A genuine pain to use the Super NES's control pad...it's just not the ideal layout for fighting games. If you have a joystick, however, then you'll be able to pull off moves like dragon punches with the grace of a true master. All in all, the game is a great conversion of the arcade game and adds to the fun of the original classic. Yet it's not the great leap forward you might expect from a sequel, since it's essentially the same game with a few more features—features that should have been easily programmed into the first title. While Street Fighter II: Turbo is the better game because of these improvements, some may not feel that they are enough to warrant another purchase. One thing is clear, however. If you've somehow missed out on the first game, this is a must-have title which represents the very best in the genre." - Scott Alan Marriott (formerly at allgame.com)

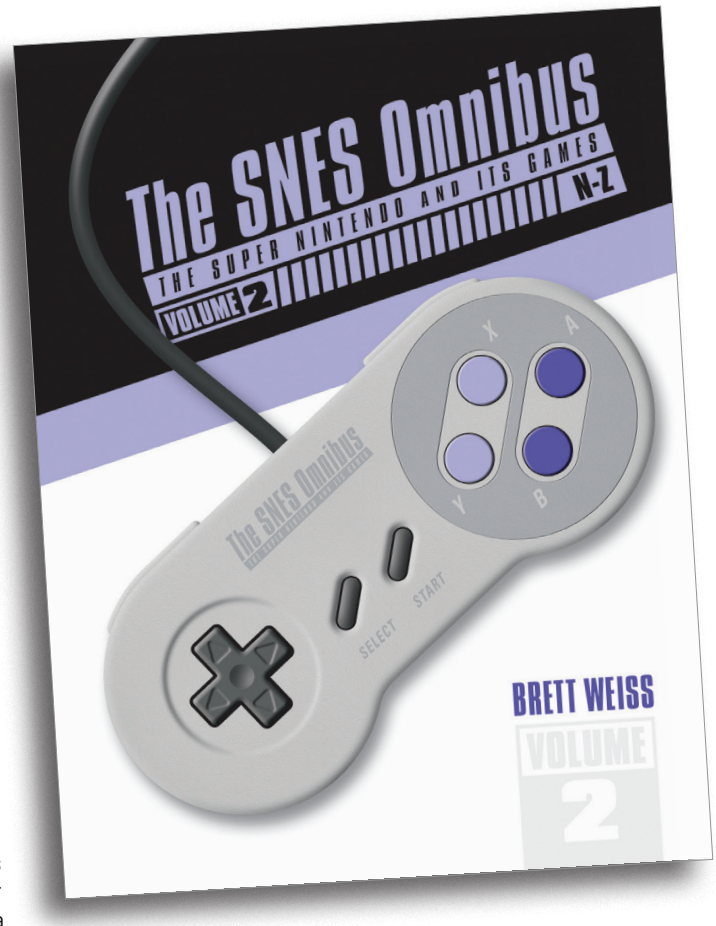
Insider Insight: I should've known better. I'm about as non-confrontational as they come, so when Brett, my dear boyfriend, suggested we play a fighting game together, I should have coyly demurred. I could have suggested a less antagonistic title, but buoyed by the fun we had playing The Simpsons beat-'em-up in the arcades, I figured it could be cathartic to relieve some tension. I thought it would be a good way to spend time with my love, and besides, it's just a game.

I thought wrong.

Once I became Chun Li staring down her sumo-sized opponent, losing was not an option. I had no use for strategy, no time to learn which buttons did what. Learning curve? Pffft! I hit every button as fast as I could. Punch! Kick! Spin! Dodge! An accidental whirlwind kick! A how-did-I-do-that fireball! Somehow, in spite of my ignorance and poor coordination, Chun Li managed to best E. Honda in our first round. If I could beat Brett with my chaotic, all-out, random assault on the controller, then that old theorem about a million monkeys typing the works of Shakespeare just might be true. This win was my Hamlet.

I should have known there was no way my victory was anything but dumb luck, that a repeat was against the odds. I should have set the controller down and called it a night, but the super competitive (and slightly chagrined) Brett wanted to play out the match. In the next rounds, he easily knocked me out. He had the nerve to again and again pummel me—I mean, Chun Li.

If Brett is super competitive, then I am hyper competitive. Even though I KNEW he knows the game better, and even though I KNEW he has far better eye-hand coordination, this loss was a gut-punch, or more accurately, a "hundred hand slap."



I did not take it well. Seeing my frustration, Brett kindly offered that we handicap the game to give Chun Li an advantage against her opponent. That feature is made for uneven matchups like ours, right? Unfortunately for my on-screen avatar, my competitive nature did not take kindly to his gracious offer. I wanted to WIN—no asterisks.

So when I lost yet again, my grief bypassed denial and flew directly to anger. Then the tears came—buckets of tears! Brett tried to soothe me. His face, flush with the thrill of victory, provided no comfort for my reddened cheeks. How could he so relentlessly and rudely beat me at this dumb game? And how could he so thoughtlessly offer to help me win?

My sweet boyfriend was in a no-win situation, as was I. Fortunately, my love for Brett and for gaming didn't end that night. Cooperative games allowed us to combine our efforts and work with instead of against each other. I could lean on his expertise to help us both win. It turns out we make a pretty good team. Love, not to mention Donkey Kong Country, indeed conquers all.

Decades after our wedding, Brett will sometimes ask if I'm ready to give Street Fighter II another try. I could succumb to my competitive nature and go for it, but remembering my bruised ego and battered Chun Li, I coyly demur. Now I know better.
~ Charis Weiss

To pre-order The SNES Omnibus Vol. 2, check go to Amazon or check out www.brettweisswords.com .

Brett Weiss - Brett Weiss is the author of nine books, including the Classic Home Video Games series, The 100 Greatest Console Video Games: 1977-1987, and The SNES Omnibus: The Super Nintendo and Its Games, Vol. 1 (A-M). He's had articles published in numerous magazines and newspapers, including the Fort Worth Star-Telegram, Game Informer, Classic Gamer Magazine, Video Game Trader, Video Game Collector, Filmfax, and Fangoria.

Fighters Before the Dawn of the Street Fighter Age

By Adam Pratt

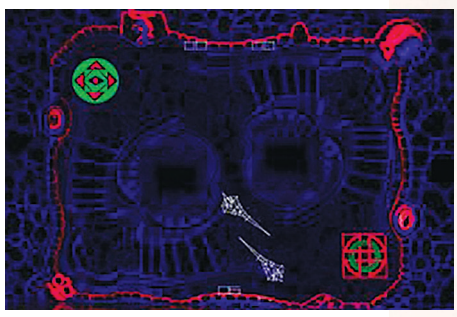
In any discussion about the influence and history of fighting games in entertainment at large, it is impossible to ignore the contribution that arcades made to the genre. Naturally, everyone first thinks of Street Fighter II when such games are brought up, and this issue has covered that game thoroughly.

But what about before Street Fighter II? That game was not created in an ex nihilo forge, so how did we get to that point? My intention in this article is to dig into those influences, so that we can see how the genre came into being.

At the heart of every fighting game is a basic concept that played a major role in almost every early video game – competition. Players are given relatively equal means to combat each other, the rulesets allowing each user to hone their skills in the battle to come out the victor. For the earliest video games, whether that was Tennis For Two, Spacewar, Pong, or Tank, the computational power simply wasn't there for the machine to challenge the player. Thus, the solution to make games fun was to pit one player against another.

The first real step into mano-a-mano combat didn't come about until the mid-'70s when Taito would create the thrills of the Old West shootout in Western Gun. Licensed by Midway as Gunfight in the United States, this game pitted two cowboys against each other in a duel limited to the confines of a single screen arena. This marked the first time that to human-like characters would face off against the other in a video game; it also was the first arcade title to boast the use of a CPU instead of discrete logic chips. This meant smoother play and the greater potential for added features, a real game changer on the market for gaming at large.

While the cowboys would not take to landing punches or kicks against each other, players were challenged to take their opponent out as often as possible before the clock runs out, having to watch their ammunition in the process. This limitation bring both timing and strategy into focus, concepts that would later play an important role in every 1-on-1 fighting game to grace the market.

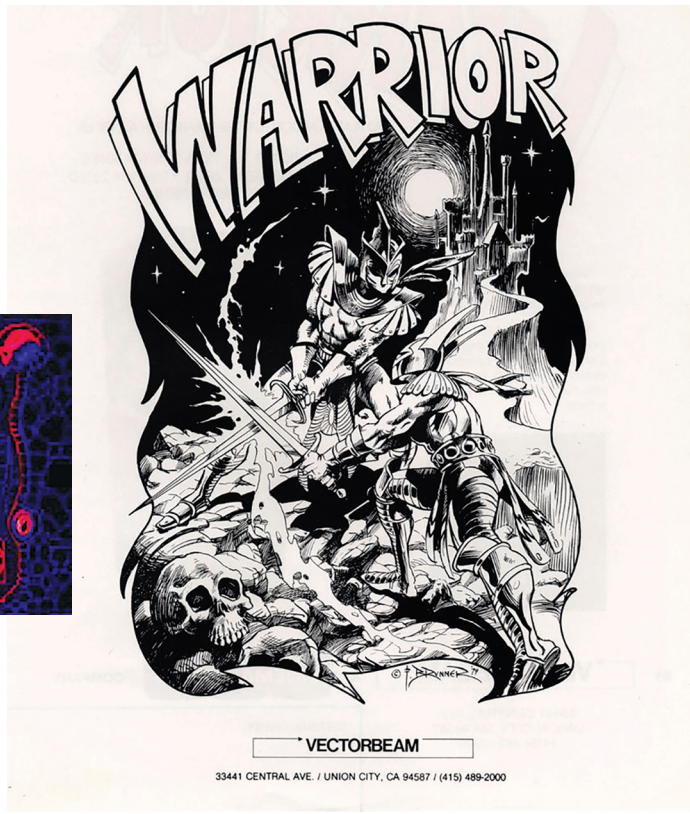


The next step in caricatures battling each other game in 1976 when two relatively obscure games found their way into arcade. While it is unclear which title was produced first, they both took these first steps onto the path of the fighting game.

The first of the two might be a little bit of a stretch, but I think it counts – Knights In Armor by Project Support Engineering. Few remember this company as they were not around for very long, but in addition to this game, they did create the iconic Great White Shark-shaped cabinet for Maneater, along with this medieval jousting game. You would control either the white or the black knight in the goal of dismounting your opponent over eight to twelve jousts. As a black & white game, this title boasted impressive graphics at the time through use of large character sprites (something that would be seen as a badge of honor in the late 1980's & early '90s).

The second title was created by Sega, but it was done so before the company had become the gaming juggernaut that would dominate the scene in the early '90s. Thus, Heavyweight Champ is extremely rare and unknown, despite bringing some innovative concepts to the table. This was the first video boxing game ever created, allowing it to easily lay claim to being the grandfather of all martial art titles. Like Knights In Armor, it also relied on a B&W monitor but featured large sprites that almost filled the screen. It also used unique controllers that were shaped like boxing gloves, the players grabbing the handle inside of the "glove" shell, then moving it up or down to aim their punches in the game.

While many single player titles dominated the scene in the '70s, competitive concepts never went out of style. One company that would embrace such titles to a successful effect was



Vectorbeam (later, Cinematronics). When they released Space Wars in 1977, it introduced vector monitor technology to the world and skyrocketed to become the top video game on the market. That technology would play a crucial role in the next entry into the genre, Warrior.

Warrior featured two knights in glowing vector armor dueling to the death in a single screen arena. The action was viewed from the top down and controlled by giant staff-like joysticks. Players face off by swinging their swords at the other, a touch of the sharp blade sending the victim to a quick death. You could also use one of the pits in the arena to your advantage. It was an innovative game, but in practice was a little clunky to move your knight around. It didn't sell terribly well and has been mostly forgotten by time.

After Warrior, it was clear that the technology just wasn't there to pull off a 1-on-1 fighting concept, so the industry pursued easier and more exciting revenue streams. That was until 1983, when Japanese companies found their chance to shine while American developers stumbled. This was the year the combative sport of wrestling would make its virtual debut with Tag Team Wrestling by Technos. Serving as the first game from the company, the animated, physical brawling would quickly influence a number of other wrestling games such as Sega's odd Appoooh (1984) and later Body Slam (1987), apart from Tag Team Wrestling's own, more popular sequels like Mat Mania (1985) and Mania Challenge (1986).

This would also influence other Japanese developers to attempt virtualizing more sports, particularly in 1984. Early in that year, Nintendo would release a game that could almost be thought of being ahead of it's time, putting the player into the pseudo-3D role of the boxer. This game of course was Punch-Out!! Punch-Out!! quickly became one of the most beloved and influential games of the decade, in good part due to it's graphics, art direction and sound, but also because it was so unlike other games arcade goers had seen. It certainly helped that sports like boxing found an elevated status in the "macho" culture of the mid-80's too.

Other companies would attempt to create their own boxing titles around this time, but none were quite as sophisticated as Nintendo's take. Yu Suzuki, before he be known as Sega's grand master game designer, cut his teeth on Champion Boxing, a title that despite it's rudimentary appearance, did pit one fighter against the other in a 2D arena with health bars. Data East would also come along with the more advanced Ring King in 1985.

But, when people think of fighting games like Street Fighter, they don't first think about boxing, they think karate. For anyone who remembers the mid-80's, you certainly can recall the fever that kids everywhere caught after seeing The Karate Kid in theaters. This quickly spread to arcades, where Data East was the first company ready to pounce on the fad with Karate Champ. By bringing the world of karate tournaments to arcades, this title would end up serving as the "grandfather" to the fighting genre in a variety of ways. Sure, it lacked health bars, but it did feature complex movesets whereby the proper combination of joystick moves a player could unleash a number of different attacks. It also used speech to provide for more realism and a month after the original title was released, the "Player vs. Player" model was launched, allowing people to challenge each other as the real "Champ."

We could almost leave it at that, but there were a few other influential titles worth mentioning. From Konami's side, they released two games in 1985 that were much closer in style to what the fighters of the 1990's would provide. These were Yie Ar Kung Fu and Galactic Warriors.

Yie Ar Kung Fu is the better known of the two; it was also released in January of that year while Galactic Warriors launched in November. Yie Ar stars "Oolong." a martial artist who is vying for the Grand Master title while also seeking to avenge the death of his father. You face off against eleven different enemies on that path, with a nice repertoire of moves you can use to achieve victory.

Galactic Warriors is notable for building on some of the Yie Ar Kung Fu concepts. It also has a health bar, but borrows the idea of having timed rounds from boxing. This is also the first fighting game that gives the player a choice between different characters with different abilities; each battle takes place in a unique and exotic location; players and opponents alike also enjoy the use of weapons. Had this game come along in 1990 or so (using the tech of that time), it might have made a more memorable splash.

So there you have it, at least running up to the first Street Fighter arcade game that came along in 1987. That one was quite interesting for the Deluxe model that used real pneumatic buttons that players had to punch instead of tap, but you can imagine why that didn't last very long in arcades. If we had more space, we could spend a lot of time discussing the influences of beat 'em ups on the genre, from Double Dragon to Final Fight, Golden Axe to The Simpsons and so on. Either way, there is a lot of history behind the games – hopefully this helps you appreciate where we are even more!

Adam Pratt - Owner and operator of the Arcade Heroes news blog and of the Game Grid Arcade (West Valley City, UT) that opened in 2008. He began collecting arcades in 2000 and has done everything in the business; from game sales to writing game reviews, marketing, QA testing, and consultancy, to name a few. He released his first book, The Arcade Experience, in 2013. Adam lives in the Greater Salt Lake City area with his wife and three kids.

Beavis & Butthead

IMMATURITY IN AN ARCADE... NO WAY

By Jacob Pruitt

A lot of us can remember sitting in front of the television set late at night on our carpet and watching our heroes sing on MTV. Our smiles appearing on our faces once the two teenage idiots appeared on the screen sitting on their couch. Beavis and Butthead, a favorite of many, was going to be a fully playable video arcade game. During the mid-nineties, the minds over at Atari Games were hard at work building a game based on our favorite duo. The game used hardware from Panasonic's 3DO Interactive Multiplayer console. You could play as either character or find a friend and you could play side by side (or man to man).

It was a beat-em-up, with only four out of the original six planned levels finished when it went up for playtesting. The sad thing is that it was canceled. Not only did it not test well, but Midway Games had purchased Atari Games before it could be released. It would remain unheard of until 1999, when the twelve prototype machines built were sold at an MTV auction. It is unknown what happened to all twelve, but each of them is numbered. Many think that some machines were destroyed or lost in a shed. From 2007 to 2013, some of the twelve machines were shown at the California Extreme, and the game started receiving attention again.

On November 6th, 2016, a well-known arcade by the name of Galloping Ghosts had bought the ninth prototype from Prince Arcades. The machine was listed as not working, though there was still hope. After digging into the machine, they discovered that the problem was a faulty disc drive, one they couldn't identify at first – that is until they saw the 3DO logo. This was a large hint for what they could do to get it working. So, they set off to find a 3DO console and rip it apart. They took the disc drive with its cable and rewired it into the machine. After some trial and error, the hum of a monitor and the pop of a speaker, they knew their efforts were a success. The familiar theme of the MTV sitcom played and the grinning faces of Beavis and Butthead emerged on the screen.

Though Galloping Ghosts has refused to release the game's ROM, it is, and hopefully will always be, available for play in their arcade in Illinois. This game, along with others in their collection, is something that many would have forgotten about were it not for efforts of the staff at Galloping Ghost. Now playing the game is nothing short of entertaing. Though only four of the six planned levels are finished, you can play all the way to an early ending. Each level starts like a typical Beavis and Butthead episode, by criticizing a music video or commercial. But this time, the TV can hear you, and they suck the two into the video. The first level is called the "Buttfest", which was a 1960s hippy theme. The next level is set in a heap of aggressive country singers, after which you're taken to a circus theme level, then finally metal/rock.

In the end, you board a toilet-shaped spacecraft, fly into space, and are given the option to destroy Earth or visit Uranus. Choice one leads to blowing up the planet, where everyone on it flies past your ship as an asteroid tumbles your way. The space rock crashes into your ship, sending Beavis and Butthead rocking on into space. Choice two, visiting the planet Uranus, is a bit more amusing. As you can imagine, it is every elementary student's vision of what the planet Uranus looks like. The duo gets sucked into Uranus' anus and scream before being farted out, rocking on and flailing their hair harder than ever.

Between every world, you're given a bonus stage - sometimes it is more amusing than the world you were in previously. In the first bonus stage, Beavis and Butthead are sitting in front of the window sill, pulling pedestrians off the sidewalks with their fishing poles, which then dumps you into the world of country. The next bonus round takes place in Burger World. Beavis and Butthead must cause as much chaos as possible by throwing food they find on the ground, which then dumps you into the carnival world. The final bonus world has Beavis and Butthead fighting in mud dressed in skirts and bras, outfitted with boxing gloves and bats. After that finishes, you finally enter the rock world.

The game may not be open to the emulation community, but at least it's being preserved in an arcade, where it belongs. There are only two arcade venues that have a playable copy of the arcade game - Galloping Ghost Arcade (Brookfield, IL) and Hyperspace in Lakewood, CO. No matter how stupid or childish the game is, it's a classic that can be loved by many. It really is a shame that it was never given a proper release, as it is a well made and funny arcade game.

Jacob Pruitt - With a passion for pop culture and video game history, Jacob is always on the lookout for rare and historically significant games. He often spends his time working with his family to restore and preserve video game history for the National Videogame Museum by researching information such as game development history and arcade artwork of the past.

Jayden Burke

HOLY GRAIL VIDEO GAMES RUN BY A 16 YEAR OLD ENTREPRENEUR

By Old School Gamer

Ever since Old School Gamer started attending the major expos across the country, there has been another personality at most of the larger expos that has always interested me. Going back to the show where the plans were formulated for OSG, the Classic Game Fest in Austin, TX (2017), continuing to Portland Retro Gaming Expo, where we launched, and continuing through several others to come full circle back to Classic Game Fest (2018). This is where I was able to interview Jaden Berk from Holy Grail, the video game store!

What makes this so interesting is that while most of us collectors of retro games from the 80s and 90s actually lived through the decades, or were even born in the century. You see Jayden is 16 years old, and here's a bit of his story...

JAYDEN: So, I'm 16 years old and I got into it when I was 15. Actually, I was at a videogame show and this guy, he had a bunch of older games -- NES, Super NES, Wii, Sega, whatnot -- and it was really cheap. I wasn't sure why it was really cheap. My dad said buy it all; don't just buy one, buy it all. So, I went up to him and basically ended up buying all of his NES, whatever he had, like 60, 80 games; all of his Super NES, all of his Wii, all of his Genesis. So that's how the store started.

OSG: *Buying all kinds of stuff, but I remember that you have a certain affinity for the Nintendo Game Cube.*

JAYDEN: As a young guy, GameCube was the current system at the time and I fell in love with it. I enjoyed playing games so much that I wanted to check out other systems and expand on my collection. From that point on my collection grew and grew and led to my dad buying me a complete collection of N64 games. That sparked my interest in completing my GameCube collection. It was a system that I loved to play as a kid and still enjoy playing it now, and to complete my collection would be awesome. I enjoy playing all types of games from first person to shoot 'em up games, to even sports games. Besides the retro games, I also enjoy playing full size arcade games.

At the expos we have gone to in the last year, Jayden's Holy Grail store has had the largest onsite inventory of any exhibitor, usually with a dozen to two dozen full length tables stacked with inventory in well-organized long storage containers that allow him to drop into the show, and set up in just a couple hours.

OSG: *You mentioned earlier to me that you are going after a full collection of GameCube titles, and are just a few short.*

JAYDEN: Okay, so there was a Super Monkey Ball 2-pack. They made Super Monkey Ball, the first one, and Super Monkey Ball, the second one, and this is a 2-pack sold together in some sort of a paper cover that made it kind of rare because it would get damaged. And the next that I'm looking for is a Sonic Adventure 2-pack, and that is extremely, extremely difficult to find. Trying to find it for years but still can't come across it.

OSG: *What's your advice for someone hunting for a game on that level? I mean, obviously you can watch eBay and pay whatever price, but you probably enjoy the hunt a little bit more, don't you?*

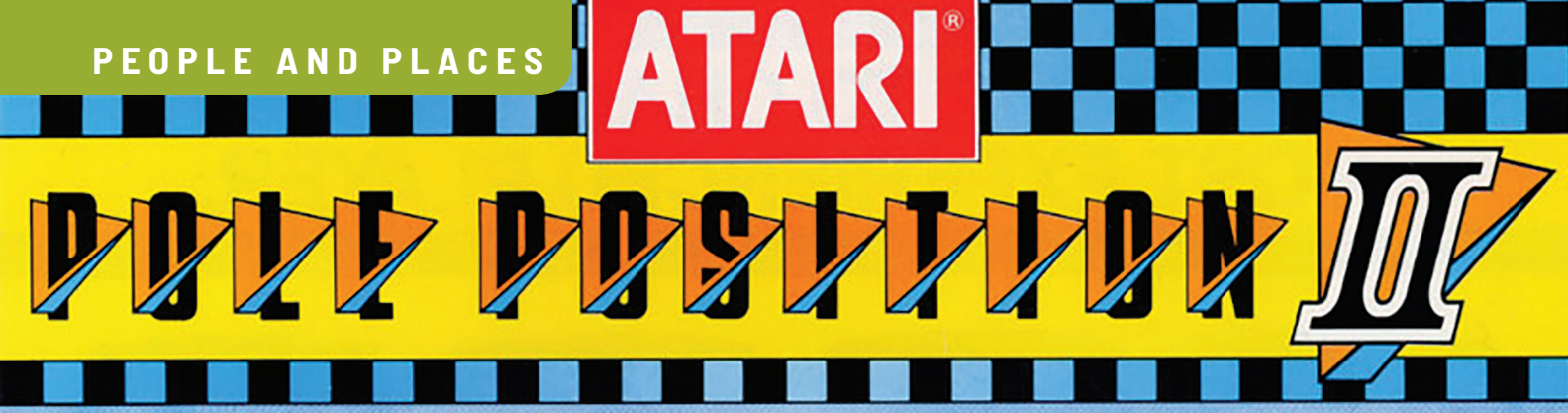
JAYDEN: Oh, the hunt's great. Just hunting around, you never know. You might get lucky at some flea markets. You just never know. And then, obviously, some of these higher-priced games, if you just look at videogame shows and conventions, you have a greater chance of finding some of those.

OSG: *So why should collectors hunt you down at retro gaming expos?*

JAYDEN: People should come to our booth first because we have something for everyone. From games, to systems, to accessories, you are bound to find something at our booth. Lastly, I am probably one of the youngest dealers in the hobby, but yet I treat everyone with respect and try to give a fair price. From our booth table covers, to The Holy Grail carpet, customers will have an enjoyable experience dealing with The Holy Grail Store.

Sometimes I wonder about the next generation of this world, the Generation Z/Centenials (or whatever they will end up being called), and how they are going to run the world when I'm off and retired. I also worry about them with regards to their gaming habits, but people like Jayden make me feel better. A strong respect for the past and future, as well as a hardworking business ethic, are what drives Jayden Burke.

HolyGrailVideoGames.com



Pole Position and Michael Klug

COINS DETECTED IN POCKET

By Joel West

Welcome to the premier installment of a column dedicated exclusively to Old School Gamers. These gamers, back in the day, had to physically use a coin to start a video game. The earning of coinage was mostly accomplished after some form or work, usually hard. After earnings were paid, there was the trip itself to the ARCADE. ARCADE is written in ALL CAPS because it is the Old School Gamer's origin. It was and is remembered as a hallowed place. Respect your origins.

The journey to the ARCADE was all uphill, from whichever direction you began, because the ARCADE was a lofty place. The journey was froth with enemies all along the way to fight, such as dinosaurs, quarter bandits and later the counterfeit token Mafia. You oftentimes needed no warm-up once at the ARCADE because of the battles you had to endure en-route. This is the story of one such Champion - of the battles INSIDE the ARCADE.

The name Michael Klug is forever indelibly linked with the ARCADE classic video game Pole Position. Michael was recently inducted into the International Video Game Hall of Fame in Ottumwa, Iowa. This was an induction long overdue. Let us look at the game before we look at the player.

THE GAME

Pole Position was designed by the same designer who designed Pac-Man, Toru Iwatani. Pole Position was released in Japan in July 1982, then in North America in November of that same year.

Pole Position was a breath of fresh air, graphics-wise, versus the two-dimensional game releases of the previous two years. The point of view was from a rear pseudo third-person view. While this was often seen in the two-dimensional views, the graphics were so phenomenal that they were award-winning. Pole Position was Coin Op Game of the Year in 1983.

Pole Position puts your player inside of a Formula I race car with you as the driver. This was great marketing to all teenage boys. In Pole Position, your car was the center of attention. One player compared the Pole Position video game graphics experience to being in the center of the back seat of a fast-moving car, as the scenery flies by around you.

The premise of this appealing game was not to just go fast, but to go fast accurately, safely and quickly. Should you violate this premise and wreck, you would explode. Of course, you would get another car immediately to continue play, however, this would negatively affect your game time and the number of cars you could pass in scoring.

The scoring of the game was designed with three excellent elements. The first element was points scored by covering the surface distance of the track. The second element was the number of cars passed. If they passed you back, you lost those points. These first two elements are automatically computed into what is popularly considered "the score".

The third element and likely the most ingenious: time of race completion. This third element was over-looked by all scoring bodies and sadly still is today. The time element for scoring can distinguish between two identical score numbers as to who was the fastest finisher. Should the player run onto the red and white warning track that slows the racer down, your completion time will increase. As a matter of fact, unless you finish the four lap race, you do not get a completion time.

THE PLAYER

In the early 1980's Michael Klug was enamored by video games as much as any male born in the mid-'60's. I would love a story line which revealed that Michael was a thug who robbed coin laundries and soda machines for his video game quarters. Alas, Michael Klug was true to the meaning of his family name: "wise, prudent, noble and honest".

Flyer from Arcade-Museum.Com

NEW TRACKS TO CHALLENGE THE MOST EXPERIENCED PLAYER.

Video games became a craze Michael was 16 years old and Pole Position introduced when Michael was 17. He eventually discovered that a wise and honest way to support his gaming habit was to work in a video game arcade. He was the top player of so many games in his local arcade, as well as in many other local venues in the San Jose, California area. Then one day he met Les Lagier.

The meeting of Les Lagier sparked a friendship and gaming rivalry that still exists unto this day, 37 years later. There's a story of Lagier, upon meeting Michael for the first time, boasted about his Pole Position ability. Klug at work in the arcade, in true cocky gamer fashion, flipped a token to Les in the air, which he caught. Michael said "You're welcome to give it a try." Fire was kindled in both at that moment. There is a Bible verse I use often that applies here. Michael even quoted this in his Hall of Fame acceptance speech: "Iron sharpens iron, as one friend sharpens another." This verse was certainly proven correct in these two competitor/friends.

The Pole Position title would go back and forth between these two for a few years, until the near-perfect score, by ONE car, was reached by Lagier just 4 days after Michael reached his last Pole Position world record of 67,260. Lagier scored 50 points more 67,310. That score has remained top for 34 years.

Both Lagier and Klug partnered together to calculate what may be the "perfect score" for their beloved game. They differ in conclusion by 650 points: 68,010 by Lagier to Klug's 67,360. However, we may never find out. Many Pole Positions games are compromised in their performance by a malady common to the cabinets, a pedal spring problem. This problem limits the player in reaching the top track speed. While Michael can perform routine maintenance on his Pole Position, I can't tell you the countless times at events that I have been disappointed not to see him play on a top-notch machine.

Michael is truly a Legendary gamer of extraordinary abilities. He even increased his notoriety as a great gamer after being hired by Atari as a game tester, then being promoted to manager of that department. There are reports of a very tired Michael being in a tournament in Ottumwa, back in the day, and playing Pole Position with his feet steering the wheel and using a stick to hold down the gas. One of his "answering-the-call-of-a-champion" moments came in the Guinness World Record Tournament in 2005. He needed a score on Pole Position to get listed in the Book of World Records in the last moments of the tourney. He decided to play Pole Position II instead. In a miraculous come-out-of-nowhere effort, Michael scored 78,020 to elevate himself to a new world record and grab a mention in the Guinness book. There is no doubt, no matter when you look at Michael's Pole Position experiences; you see the heart of a champion racing around the track.

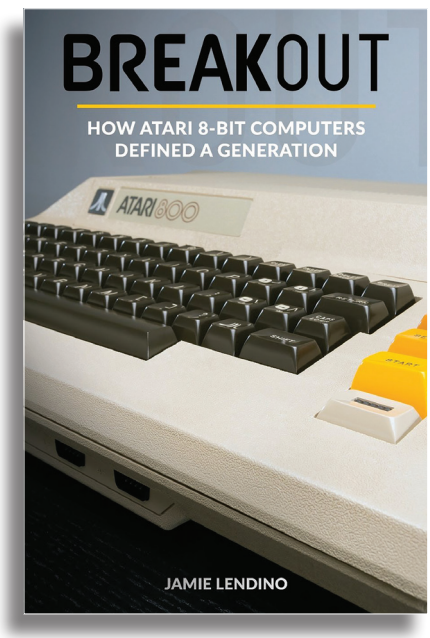
Joel West with Michael Klug in Ottumwa, Iowa

About Atari: Two Books by Jamie Lendino

By Bill Lange

Jamie Lendino, the Editor-in-Chief of ExtremeTech, recently released (June, 2018) a new book on the Atari 2600 titled Adventure: The Atari 2600 At The Dawn Of Console Gaming. It is his second Atari-related book and is the follow up to his earlier (March, 2017) Atari 8-bit computer book, Breakout: How Atari 8-bit Computers Defined A Generation.

Adventure: The Atari 2600 At The Dawn Of Console Gaming covers the history of games available for the iconic Atari 2600 console. The book also briefly frames the history leading up to the launch of the Atari 2600. With the stage set, the book then walks the reader through the continuing history of the platform, through the chronological releases of important, influential and technology-advancing games. Lendino doesn't attempt to cover all the games produced for the platform, which, with the newly released homebrews and recent hacks, now numbers in excess of 500 software titles. It leaves out the vast majority of clones and poorer quality games, unless they are so industry-changingly bad, they can't be left out. We all know which titles are being referenced here.



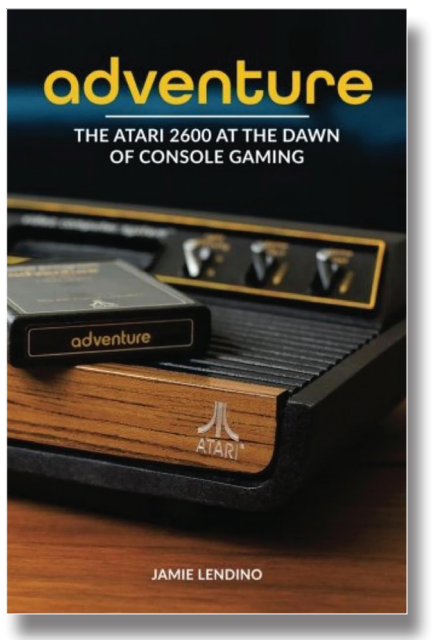
The book navigates through the Atari 2600's launch titles, the arcade ports, and the best-selling original titles. It wades into the threat from third-party game developers such as Activision and Imagic. It mentions competing consoles from manufacturers such as Magnavox, Mattel, Coleco, and even Atari-itself, and the impact of the growing home computer market with its much more capable hardware. It also dives into the role of the Video Game Crash of 1983 (also known as Atari Shock in Japan).

Make no mistake about it, other books and articles cover the history of Atari and the Video Game Crash of 1983 in much more excruciating detail. What this book does well is explain how the Atari 2600 contributed to it, was affected by it, as well as how the 2600 influenced console gaming history in its own right.

The book covers my four favorite (at the time) games on the Atari 2600 platform: Adventure, Space Invaders, Asteroids and Haunted House. I can still remember the first time I saw a commercial for Haunted House during a third season episode of the ABC television program Hart To Hart in the 10 o'clock hour on a Tuesday night in late 1981...a school night when I should have been asleep!

At the end of Chapter Four, the book becomes something else for me - more historical and less nostalgic, as I believe that Haunted House was the last game I purchased for the 2600. In March of 1982, I purchased an Atari 400 home computer and left the Atari 2600 behind. While I likely played many of the remaining games mentioned in the book, it would have either been in the arcade or on my Atari 8-bit computer rather than the Atari 2600 version.

Lendino's previous book, Breakout: How Atari 8-bit Computers Defined A Generation, is basically broken down into three sections, with one or more chapters in each section: the Past 1979-1992 (more or less), the Games (from the author's perspective), the Now (Emulation, Collecting, Mods, Community).



The first section covers the pre-1992 Atari years. If you are a fan of Atari the company, and an Atari 8-bit computer enthusiast in particular, you are likely to know many of the details: the timeline, the players, the products, the problems, etc. What this book does brilliantly is walk through Michael Current's Atari 8-bit FAQ and pulls in additional details from various sources, including books, magazines, interviews and online (such as atariage.com, atarimania.com, and archive.org, among others).

The second section covers a selection of games that the author found notable and laments about some of the iconic games that have never been available on the Atari 8-bit platform, such as the Wizardry series, the Bard's Tale series and the later Ultima games. This section is going after my own heart, as these are some of my personal favorites, which I ended up playing on the Apple II.

In the third section, the author covers the current state of Ataridom, including emulation, collecting, mods, the Atari 8-bit community, resources and more. For me, this is really the most

interesting part of the book. Lendino almost seems to be passing the torch from the first generation of Atarians, such as Joe Decuir and Chris Crawford, to a new generation of Atarians - those collectors, historians and archivists that keep the history alive, such as Michael Currant, Kevin Savetz, and Curt Vendel. He also gives credit to the Eastern European designers and programmers that continue to breathe new life into the forty-year old technology.

Any book that mentions Atari 8-bit computers, the Ultima series of computer role playing games, and BBSing, before even getting to the first chapter is going to keep me reading. This book has something for everyone in the Atari 8-bit community: history, games (all the games you know and love and maybe a few you never heard of), emulation, mods and more.

While neither book is an autobiography or memoir like Kevin Savetz's Terrible Nerd or Rob O'Hara's slightly more nefarious Commodork: Sordid Tales From A BBS Junkie, Lendino does include some short, insightful, personal anecdotes and childhood experiences. And for those of us who have never really left our Atari days behind, it helps reaffirm our admiration for the platforms and products that were both underappreciated and ahead of their time.

These well written, well edited, and enjoyable books are worth the price of admission for any Atari fan or retro gaming enthusiasts. The books are around 275 pages and are deeply researched and extensively footnoted. Both books are available in paperback and digital versions.

In the middle of June 2018, author Jamie Lendino took time out of his busy schedule to answer a few questions about his books.

OSG: *Ok, why such love for all things Atari?*

JL: Oh, where to begin! I mean aside from growing up with them starting from a young age, I quickly became completely entranced by the technology; at first for the games, but later for everything else, including the way they were so carefully designed and how programmers and third-party hardware designers were able to extend these platforms to do so much more. Obviously, I didn't think of it that way when I was growing up, but that's in essence what drove my passion for these otherwise inanimate objects that I think a lot of us felt. Looking back on it now, I can all the more appreciate the people; these trailblazers, who made these wonderful pieces of electronics and software with little to no precedent. And for me, spending all that time with these systems essentially informed my entire career as a tech journalist and editor. No matter how much we've all come to expect from the latest and greatest from Android phones, the iPhone, the maker movement, and advances in AI and machine learning, a part of me is always thinking back and feeling the same awe, both at the technology itself and how far society has come in a short 40 years.

OSG: *I agree. I credit Atari with first getting me interested in programming and kick starting my computer science education, leading to my career in software engineering which afforded me the life I live today. Do you still have your original Atari hardware?*

JL: I don't! Not to turn this into a psychiatrist appointment, but I do feel like some of the longing and affection that drove me to write these books has to do with no longer having the original hardware and software. I moved a bunch of times in my twenties, from tiny NYC apartment to tiny NYC apartment, so there was simply no way I could store any of it. And back then, the value of all of it was very low, and we now know how much that's been changing lately! Nonetheless, I've since re-bought a lot of the same gear, plus some things I never had as a kid, as I researched and wrote the books. ("Research" in this case could mean playing Archon and Gyruss instead of writing like I was supposed to be).

OSG: *Same with me. After serving in the military and moving back and forth across the country a few times, the only thing I really had left was two shoe boxes full of floppy disks and some joysticks. You recently had an issue with your first book, Breakout: How Atari 8-bit Computers Defined A Generation. How was the issue discovered and how was it resolved?*

JL: Ha, so a fellow enthusiast named Kevin Savetz, of the fabled ANTIC: The Atari 8-Bit Podcast, alerted me to the existence of a copy of my book on Amazon. Not a copy in the traditional sense, like a paperback copy, but a completely plagiarized version from beginning to end, except with a different cover and layout. The fake author even said on the back of the book, in the bio, that he had my day job, that *he* was the Editor-in-Chief of ExtremeTech—which I very well knew wasn't the case!

So, after some back and forth with Amazon, we got the fake book removed, and all is well. But to this day it disturbs me how easy this was for someone to do; I've since found it's apparently quite a common thing to happen. I assume someone just grabbed a copy of the Kindle or a ripped PDF of the book and then just cut and paste the entire thing into a CreateSpace print-on-demand template. I was hoping to get some resolution that applied to other authors whose works were stolen, but that's still an ongoing thing as Amazon refines its detection algorithms. I don't think it materially had an effect on my own book's sales. It was more the shock that it had even happened at all.

OSG: *What a mess. Are you planning on any updates or hardcover editions of your two books?*

JL: I am, though it's probably still some ways off. I've been pleasantly surprised at the demand for this. In fact, I'm exploring whether it's worth it to do a hardcover version that maybe has some color pages in it, or if that would be too expensive. I'm also planning on doing updated editions sometime down the line, maybe a few years from now as new information comes to light.

OSG: *Are you planning on doing any more retro gaming and/or retro computer books in the future?*

JL: I certainly am, though I can't reveal any details yet. Stay tuned!

OSG: *Thanks for taking the time to answer my questions today. I really enjoyed both books and I am looking forward to your next one.*

lendino.com

The C64 Mini

WORLD'S BEST SELLING HOME COMPUTER - REBORN!

By Michael Thomasson

The marketing boldly promotes the C-64 Mini as "The World's Best-Selling Home Computer – Reborn!", and in many ways, that proves to be true. At a buck and a quarter per game, the C64 Mini has a lot to offer. While not perfect, most of the promises made by this new device are met with optimism and fulfill expectations. High definition output, HDMI connectivity, and a fair price-point make the device appealing. Heck, the sticker price on the Commodore computer with 64 games back in the day would have cost over two and a half grand, and that's before you include thirty-six years of inflation!

Of course, the real meat of any plug-in-play device are the games. The included library of software offers up some hits. Sure, some heavy hitters are missing, but a lot of the excellent Epyx library is present, promising a good time – Impossible Mission, Jumpman, and the California/Winter/Summer Games collections, for starters. Chips Challenge is worth the price of admission alone.

For every hit, an obscure gem also makes an appearance. Even C-64 die-hards will discover something new. I'm almost ashamed to say that I had way more fun playing Break Dance than I should have...

While the games are the main feature, I highly recommend firing up Commodore's Basic Programming Language app and strolling down memory lane with a refresher course on basic programming. The mini unit only features a replica keyboard, but a standard PC keyboard can be plugged in via USB which works like a dream. Within minutes I was recreating the same simple code that I "hunted and pecked"- in back in '82. I can honestly say that it is still a thrill to see one's name scrolling for infinity after pressing the "RUN" button! I even used the C64 Mini to introduce my ten-year old daughter to coding, so the device can become a gateway learning tool as well.

Sadly, the unit dropped the ball with one critical element—the controller. While the original C-64 controller was never to be praised, the replica included with the C-64 Mini is worse. The stiff joystick makes an already hard game like Cybernoid even harder – almost impossible. The controller did loosen up a bit with extended play, but overall, fast-action arcade style games suffer. On the other hand, it has no effect, or might even improve, game play on more strategic titles such as fan favorites Boulder Dash or Deflektor.

In the end, the product is a great nostalgia piece, and even a nice introduction for those that were unable to get their hands on a Commodore 64 back in the day.

thec64.com

Rec Room Masters: AlphaCade

BUILD IT UP AND HAVE FUN!

By Old School Gamer

As an owner of nearly a dozen full arcade machines, including cocktails, full size standups and cabarets, it's not like I really needed another arcade machine in my house. But after seeing products by Rec Room Masters at the Southern Fried Gaming Expo this summer, I wanted to see what I could do with an "Xtension Alpha-Cade Series Scaled Down Arcade Machine." Much like how I built my own Game Boy sized emulation machine with the ClockworkPi Gameshell (also covered in this issue), a sense of pride comes from building something yourself, and it happened again with this Xtension arcade machine.

The Alpha-Cade from Rec Room Masters comes unassembled, in a Ikea-style format if you are familiar with the Swedish Retailer that is the king of shelves and furniture that require you to assemble. For those of you who aren't familiar with Ikea, basically they give you all the wood precut, pre-grooved, pre-drilled and well labelled, plus the bolts and parts that put everything into one piece, and some easy to follow instructions. Rec Room Masters has done the same thing, but specializing in arcade cabinets/machines of different sizes. They offer full size uprights, pedestals, cocktails and many other variants that we don't have room to discuss here.

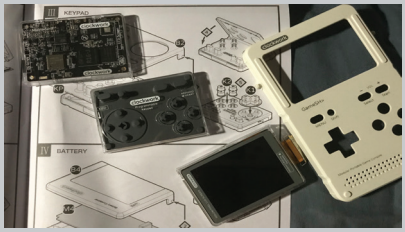
For the Alpha Cade, the cabinet pieces all came to me very well bubble wrapped, and are fantastically cut, with some notes engraved right into the non-display side, holes bored and everything. I unpacked it and laid out all of the pieces. Then I proceeded to go to the web address specified and watched the video once through just looking at the pieces involved and soaking it all in. The video is just under 10 minutes long. Then I prepared myself to roll. I grabbed a rubber mallet, the parts bag that was included, and made space on my family room floor.

I applied the stickers for the sides, the wood, and the marquee area. Then I started on the main assembly. Laying the first side down, you start assembling the pieces to it, making sure everything fits nice and snug, and it truly did. When assembling all the outside and inside boards, the only problem I came across is that the 19" 4:3 LCD monitor I had was a bit older and the larger bezel wouldn't fit in the Alpha Cade-mounted area. I had to trade with a friend for one that was slightly thinner. When planning yours, make sure to measure the total width of the screen and its depth for a good fit. After getting the monitor mounted, I ran the cabling to it, then started assembling the other side to the first one that was laying on my family room floor. Starting at the bottom, it was just making sure all the peg holes lined up with the pegs that stuck out of the boards. Some bang banging with the mallet when they were close and some finagling of the pieces made it all come together. Then it was all about taking the bolts into the unit's sides, using the allen wrench and tightening the entire unit together.

At this point, it's just about done, as you place the control panel in its place, run the wiring through the right holes and mount it on the front of the cabinet. Depending on the variant you purchase, you then have a Jamma harness to hook up to the arcade board in the back, or USB on the Emulator edition (to be hooked up to a Raspberry pi, PC/Mac, etc.).

I found this experience to be fantastic and enjoyed the build. Now to get it into the teen area at my church and let the students enjoy a little retro action!

recroommasters.com



GameShell

YOU CAN BUILD IT....I DID!

By Old School Gamer

My interest in the GameShell began when I heard about it back in November 2017, right as Old School Gamer was in its infancy. I often find myself backing many retro gaming related products that I see popping up on crowdfunding sites, especially on Kickstarter, which was also the case then. At around $149, this is a handheld gaming unit running on a variant of Linux that looks like an original Gameboy in size and feel. But what is different about this is that you are assembling it yourself. I'll tell you, I thoroughly enjoyed going through the experience. It took me about 90 minutes to complete it, and, incredibly, it worked the first time I turned it on.

It comes as a modular system including a mainboard, keypad, screen, battery and speaker, with outer shell pieces, wires and buttons needing to be assembled as well. It came in fantastic packaging, way beyond what I expected, and very well organized. The instructions were well done and easy to follow, making the construction of the GameShell unit an enjoyable experience. The pieces were well labeled, and I only found myself scratching my head once on a set of interconnect cables between the units. Once I looked it up, it was obvious which went where. Unlike similar products that I've tried to put together, this requires no soldering or worrisome assembly. Everything can be undone if you don't like the way it comes together. The only part that I really spent any time on tweaking was the way the cables ran between the various modules and inside the main shell.

And now onto the software and the OS that they have pre-installed into your system. One of your first tasks is to log into your home Wi-Fi network, which is accomplished by going into Settings, selecting Wi-Fi and the network you want to be on, put in your password and it connects. Go into TinyCloud and you will see Wi-Fi logins and an IP address, as it has set itself up as a Host. Using an FTP client or a Windows browser, then typing in the right login information that you are provided on the main screen of the TinyCloud application, you will see a directory of where you can put your ROMs.

For legality's sake, I have only installed games for which I already own the arcade machine, for the MAME emulator (Gauntlet), and NES ROMs from cartridges I own (Super Mario Bros 1&3, and Thexder). Putting them in the right format, for instance the NES files need to be in .zip format, is key. When it finds the first valid rom file, it will perform an auto install of extra files it needs through your Wi-Fi connection. One thing to note is that on the MAME (arcade games) files, you need to have an older version of the ROM file (check the online documentation for further guidance).

This is an open system and not for people that just want a "pick up and go" gaming system. For those seeking such a system, there are many other manufacturers building similar products. For me, this was an exciting project, mainly because I built it! On the manufacturer's support boards, people are talking about installing other emulators, the fun they are having on FreeDM (Doom), how to further hack the unit, and more. Based on the crowdfunding site, there appears to be over 3,000 users and there is a great community coming up for this system. Currently they are finishing up fulfilling all their backers' orders. Look to be able to order yours at their website below soon! This was most certainly $149 well spent!

clockworkpi.com

Game-O-Tron

By Todd Friedman

With the world today moving toward 3-D printing technology, there are a number of items that have been created from this excellent creative tool. Video games are no exception. With that, I'd like to Introduce the Game-O-Tron, created by Giando Sigurani, of Beaverton, Oregon.

This fully functional portable game console is definitely a creative and unique way of playing games. Giando created an Etsy page where he sells the Game-O-Tron. Before he began this idea, he created an item called the Write-O-Tron, which is a fully functional word processor made from a 3-D printer placed in a portable wooden case. Giando's passion is writing, so this idea of the Write-O-Tron was an exciting springboard for him. One day, when he noticed he had many extra parts lying around, he thought of building a portable game system in the same fashion as the word processor. He taught himself CAD modeling and made his own design from the bottom up.

The Game-O-Tron has all the functionality of a Gameboy but can play any game ROMs that you can upload via a USB stick. The software is called Recalbox. The device runs on Raspberry Pi hardware (if you are unfamiliar with the device, you can find examples on this on YouTube). The power button is located on the left side of the unit. Holding it down will turn on the machine. When finished, you hold it down again to turn it off. There is an LCD battery display on the front to indicate what percentage battery charge remains. The Game-O-Tron does not come with a charger, but is compatible with any micro USB charger. The battery life is impressive - I have yet to charge it after receiving it a few weeks ago.

There are four buttons that act as the action buttons depending on the game played. Two triggers are on the top left and right corners respectively. The slim button on the left is the Select button and the one on the right acts as the Start button. There are top buttons which act as menu buttons for the screen to adjust the brightness and contrast. There are four USB ports to hold multiple Roms in your library. There is also a network cable port for uploading roms to the 'Tron.

The playability of the games is smooth, and the controls are pretty true to life of the original games. Some of the games I played were Moon Patrol, Donkey Kong Country and Doom. The idea of playing those on a portable device was exciting to me. The one item the Game-O-Tron does not have is a speaker to play sound, however, there is a headphone jack on the bottom of the unit into which you can insert standard headphones and listen as you play. I love the idea of current technology playing retro games. It is the past meeting the future. I highly recommend this item if you are a retro gaming fan looking for a solidly built portable device that's fun to play!

writeotron.com / giandosigurani.com

WHO'S ON THE COVER?

ARpiCADE

RASPBERRY PI YOUR JAMMA CABINET

By Old School Gamer

ARpiCADE is the solution to a whole slew of issues that retro video gamers have. It is an extra board set that you hook up to your Raspberry Pi computer. It allows you to do the equivalent of RetroPie, which so many people are using to build handheld computers and retro mini-machines, but on your arcade cabinet. Supporting all the major emulators, it can also be the solution if you have an arcade game's boardset that went out on you.

Well-manufactured and built to mount the Raspberry Pi right onto the ARpiCADE, it takes the HDMI and audio ports out of the Pi and into the adapters that the ARpiCADE is made for. Additional kick harnesses are also available, so its perfect for your NBA Jam, Turtles and other 4 player games.

From there the system goes out to the industry-standard JAMMA interface that thousands of arcade machines were built with, from 1985 through the mid to late 1990s. (By checking a site like Arcade-Museum/KLOV you can see whether your arcade games are compatible with the JAMMA Standard.)

The ARpiCADE software system is totally free and customizable to your own wishes. While I didn't go that far with doing the install for this review and worked with a pretty "plain-Jane" install of it from the ARpiCADE.com site, I was able to see the flexibility within the system based on many other reviews that are out there. Some distributors (including one mentioned below) will sell you an SD card with it that has things already ready to go. Once you have the basic system ready on the SD card, putting the ROMs in the right place is important; an Excel file will help you get the right ones in the right places.

Now this isn't a 60-in-1 or otherwise illegal board like many out there that are marketed to the retro gaming community. And we are not recommending that you download illegal ROMs that you do not own the arcade board or cartridge for. The open nature of this product and its emulators does allow for such copyright infringement.

Available at HighScoreSaves.Com for people within the US, you can get a fully configured unit with the VANILLA front end, a Raspberry Pi 3, and mounting feet for a total of just over $200. If you have all the other pieces, the base unit is currently selling for $145. Anywhere else around the world, we recommend going to ARpiCADE.Com .

highscoresaves.com / arpicade.com

RETRO WORLD SERIES

UPCOMING EVENTS

SUPER MARIOKART

GOLDENEYE

SONIC THE HEDGEHOG 3

RETRO CITY FESTIVAL

TECMO SUPER BOWL™

TEKKEN 武闘外伝

JAN 5-6, 2019 POMONA, CA

2019 RETRO WORLD SERIES MAIN EVENT LAS VEGAS

VERSUS & HIGH SCORE RETRO TOURNAMENTS

TETRIS ATTACK

MARVEL VS. CAPCOM 2 New Age of Heroes

MARIO KART 64

STREET FIGHTER II Grand Master Challenge

BALLOON FIGHT

SUPER SMASH BROS.

TECMO SUPER BOWL

LVL UP EXPO

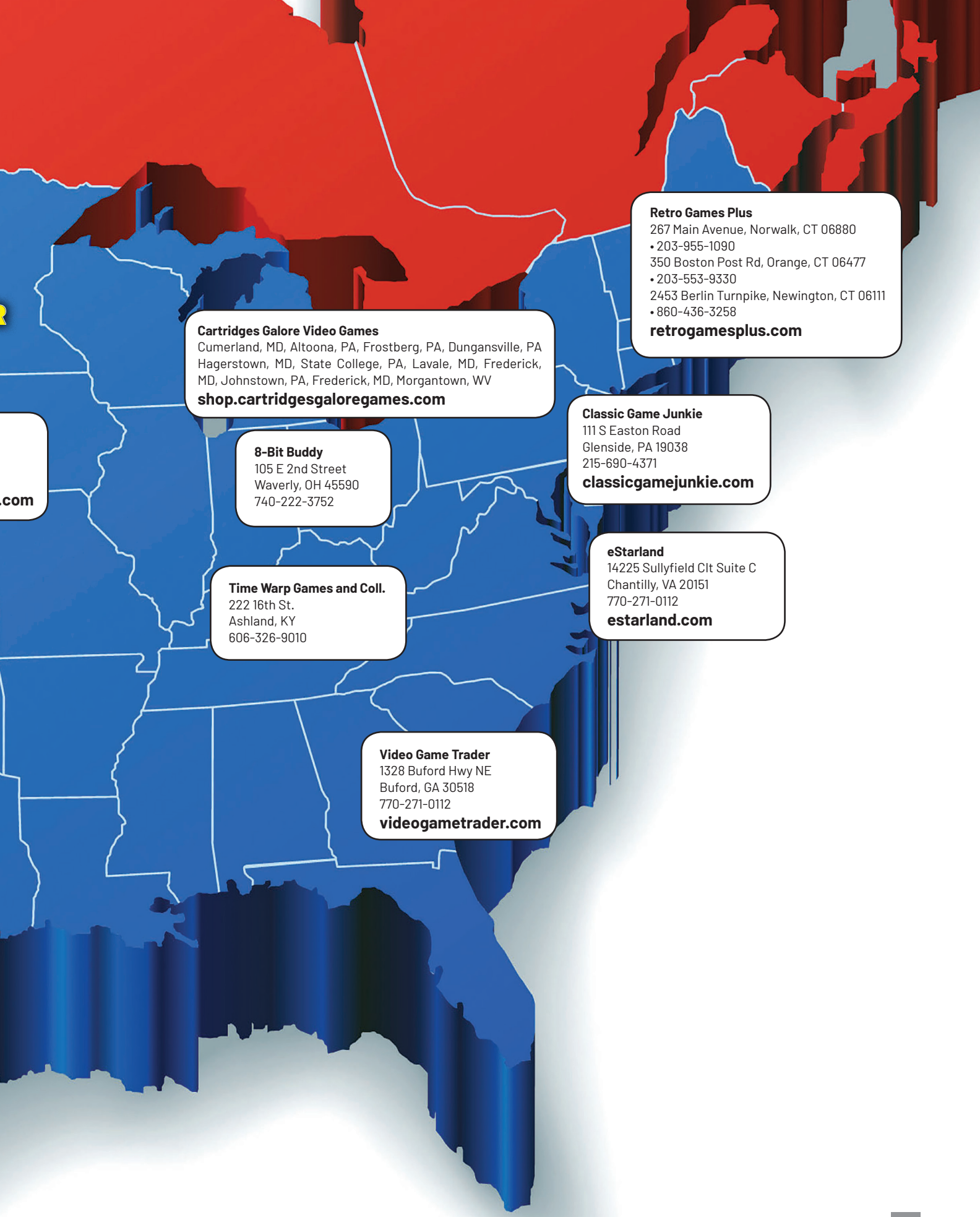
VIDEO GAMES - ANIME - TECHNOLOGY - COMICS

LAS VEGAS CONVENTION CENTER

APRIL 26-28, 2019

ATARI HIGH SCORE CHALLENGE


OLD SCHOOL
GAMER
MAGAZINE
WWW.OLDSCHOOLGAMER.COM/WHERE
GREAT RETRO SHOPS CARRYING OLD SCHOOL GAMER
Ottumwa Old School Arcade
Quincy Place Mall
Ottumwa, IA 52501
515-707-4610
ottumwaoldschoolarcade.
A Gamers Paradise
1550 E Tropicana Ave #4,
Las Vegas, NV 89119
702-432-4700
agpvegas.com
Game Swappers
4520 Holt Blvd
Montclair, CA 91753
909-267-4270
Retro Games Plus
17431 Beach Blvd,
Huntington Beach, CA 92647
657-845-4119
retrogamesplus.com
Lost Levels
114 N Harbor Blvd. Fullerton CA 92832
657-217-5810
Super Video Game Bros
563 N Diamond Bar Blvd, Diamond Bar, CA 91765
714-269-4248
supervideogamebros.com


Retro Games Plus
267 Main Avenue, Norwalk, CT 06880
• 203-955-1090
350 Boston Post Rd, Orange, CT 06477
• 203-553-9330
2453 Berlin Turnpike, Newington, CT 06111
• 860-436-3258
retrogamesplus.com
Cartridges Galore Video Games
Cumerland, MD, Altoona, PA, Frostberg, PA, Dungansville, PA Hagerstown, MD, State College, PA, Lavale, MD, Frederick, MD, Johnstown, PA, Frederick, MD, Morgantown, WV
shop.cartridgesgaloregames.com
Classic Game Junkie
111 S Easton Road
Glenside, PA 19038
215-690-4371
classicgamejunkie.com
8-Bit Buddy
105 E 2nd Street
Waverly, OH 45590
740-222-3752
eStarland
14225 Sullyfield Clt Suite C
Chantilly, VA 20151
770-271-0112
estarland.com
Time Warp Games and Coll.
222 16th St.
Ashland, KY
606-326-9010
Video Game Trader
1328 Buford Hwy NE
Buford, GA 30518
770-271-0112
videogametrader.com

California's BIGGEST celebration of Video Game History is back!

RETRO CITY FESTIVAL

January 5th & 6th, 2019
Southern California Fairplex

Arcades Pinball Consoles Vendors Music
Interactive Museum Area Tournaments

Get your tickets NOW at:
www.retrocityfestival.com