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Classic Game Fest - Austin, TX

WE DROVE 14 HOURS FROM IOWA...WHY WEREN'T YOU THERE?

By Ryan Burger

Members of the Old School Gamer crew (even before we were the Old School Gamer Crew) drove 14 hours for the Classic Game Fest in Austin TX. We had previously gone to Midwest Gaming Classic, CES and other events but never another classic gaming event. And, to say it simply, we had a blast!

The whole crew that runs the Classic Game Fest did and continues to do great job at welcoming everyone to the event and making sure they feel that Texas Hospitality. The pre-registered early line moved quickly, we all got in on the floor within minutes of the doors opening and there's where the fun began. Our crew (Ryan, Paige and Marc) split up and started taking in what we wanted to see. I personally hit the expo floor for unique collectibles and my constant hunt for completing my Atari 2600 and 7800 cartridge collection while Paige and Marc took in the bands in the back half of the hall right next to the arcade machines. We loved all the vendors, especially Video Game Coffee Tables (videogamecoffeetables.com) who I've still got to get my order in with.

Of course in addition to the hall, arcade, and musical entertainment, the stage was brought alive by speakers such as Walter Day and Billy Mitchell, GameSter81, The Game Historian and others.

Be there! July 28-29, 2018, Austin, TX. Check out more information at classicgamefest.com!

National Video Game Museum

By Ryan Burger

The city of Frisco, Texas wanted something unique for their town and no doubt they got it! The National Video Game Museum was looking for a home and found it in a northern suburb of Dallas, Texas in mid-2016! As Sean Kelly, Director of the NVM told me in an email "How is it possible that an industry that impacts the lives of hundreds of millions of people doesn't have someplace where people can learn about its history? There is a museum of salt and pepper shakers and more than one museum of carrots but nothing for video games?"

I first saw a large portion of the NVM at the Classic Gaming Expo several years ago in Las Vegas and was thoroughly impressed with the depth of material that had been accumulated for our industry. And the same question came across my mind, also came across the minds of Sean, John Hardie and Joe Santulli's…. "Why the heck hadn't someone else made a museum to not only preserve the history of the video game industry but also share it with the public?" Yes places like the Smithsonian have an exhibit that they opened Video Games for a while, but if baseball has Cooperstown, Hollywood has well...Hollywood, why can't the video game industry which is estimated to reach over $100 billion dollars this year have a museum (Global Games Market Report).

Play pong super-sized!

On our way down to Austin for the Classic Gaming Fest, we planned a day of a little bit of travel and a lot of fun. We spent approximately three hours there and could have spent a lot more. As you come in to the museum, you are greeted with a massive building that includes the NVM and several other interactive type museums and activity centers that Frisco has brought into this complex. Passing by a really cool multi-tv/video exhibit you see a bit of history shown on the screens and approach the main part of the museum. After buying your tickets the first thing you see when you walk in is themed areas including the massive Pong clone that plays on a retro styled TV.

Collections of games

Going through the location you are walking through areas that are set aside like a traditional museum with stuff behind glass. The themed areas are the best part. You can see what a Video Game store was like in 1983 (complete with the discount bin), a bedroom set in the mid 80s theme and a family room complete with a wood console TV and an Intellivision set in the late 70s early 80s vibe. Sean Kelly tells me that the Intellivision was his favorite video game console and back in the day it was mine also. My dad always had a purchasing style of buying the better technology unit, and not always what was popular….Betamax vs VHS, and Intellivision vs. Atari are the perfect examples.

1980's Bedroom

The feeling that the NVM is setting up is that of nostalgia, as Director Kelly told us. "The thing that us "old-timers" have that makes those feelings even more powerful is that we watched the birth of the industry and the "wonder" we felt playing video games for the first time is like nothing that can ever be felt again. Kids today take video games for granted in a sense because they have always been there from their earliest memories." said Kelly.

The completeness of the nostalgia is amazing. A bedroom with an NES of course with gun sitting out and R.O.B. with a Members Only jacket on the bed. Keeping it going with a Pee-Wee Herman character doll hanging out, 1980s cassette tapes on the shelves, Ferris Bueller's Day Off, U2 and Madonna posters decorating the walls! The detail that these gentlemen put into the setting is just amazing.

Other interactive exhibits include a speed test system where one of the two cameras will take your picture, and you can select the speed (measured in years - as to the transmission speed of data that year) and it will send the picture to the other side. There is a programmer's studio area where a 1980s era video game program-

mer worked, back when there weren't mega crews working on a game and often they were made by one or two people. And of course there is a cool retro arcade and gift shop at the end of the museum where you need to plunk down your tokens and play a couple games.

Details and decorations are amazing. Just noticing that the glassed in cabinets in the middle of the floor is done up like cocktail arcade games that you might remember from Pizza Hut is just amazing! A ton of the items are out for interactive usage. I personally spent some time playing Parsec on the TI-99/4A computer they had sitting in that area. The old school computer area was cool and the console gaming area was well set up too all interactive with cool games already loaded. The areas are very well labeled and have detail on the history of each piece.

While this museum covers everything from the birth of Video Games through the current day, my decades were the 80s and early 90s. This is because of the explosion of the industry in size during that time a ton of it bounces off of that.

Sean told us how one day the lead singer of the Cars showed up. John and Joe happened to be standing in the gift shop at the time when John looked out the window and saw someone who "looked like" Ric standing in line to buy a ticket. John poked Joe and said "Hey…doesn't that guy look like Ric Ocasek??" Joe looked at him and said "Yeah, he kind of does look like him doesn't he?" Ric was on the other side of the glass and could see (but not hear) John and Joe looking at him and apparently read their lips and started to smile. They both pretty much tripped over each other trying to get out of the gift shop to see if it really was Ric. It was and they were able chat with him and his family and get some great pictures. We're kids of the 80s...and naturally HUGE fans of The Cars so it was an amazing, non-videogame-related treat!

You need to get there if you have any excuse to be near Dallas, Texas. Check it out at http://www.nvmusa.org and plan your trip now!

Photos this page, from top: 1970s Family/TV Room, Collections, Arcade, 1983 Game Store

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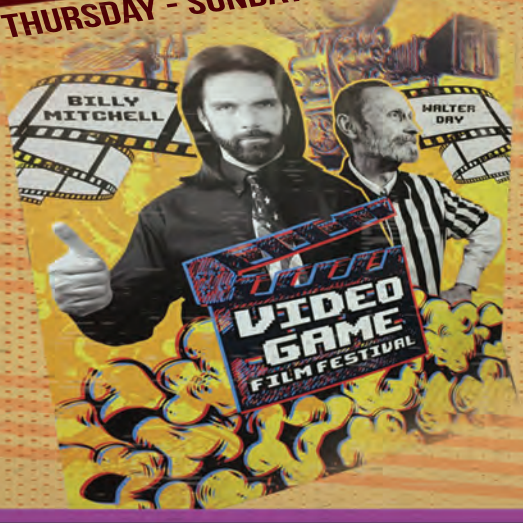

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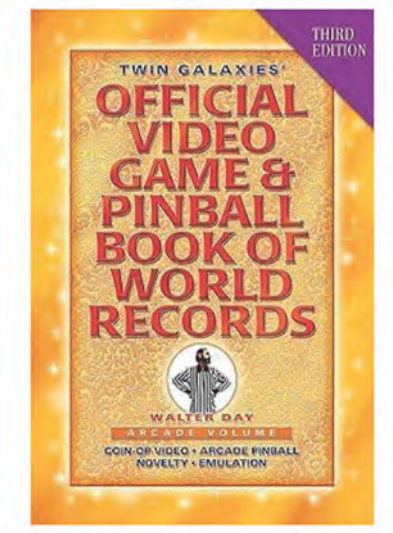
Billy & Walter Go To The Library of Congress

By Walter Day

I once calculated that I had spent more than 1,000 hours writing the 1st edition of the Twin Galaxies' Official Video Game & Pinball Book of World Records. I started on Thanksgiving Day 1996 and worked diligently until the 984-page volume was finished in October, 1997. Five thousand copies of the volume were eventually printed at a cost of $28,500 and the book was released on February 8, 1998 with a big "launch party" in Fairfield, Iowa that attracted almost 200 friends and gamers from all over the USA and Canada. Unfortunately, my publisher had an ironclad contract with a distributing warehouse in Kansas City that gave them complete control over the storing and shipping of our books, and when that distributor went out of business, 1,500 copies of the book were sent to the paper recycler. So, only 3,500 copies of the reference book ever made it into circulation. (See card #576)

But, I had moved on to greater things: namely, publishing the 2nd edition of the book.

It wasn't until 2004 that I finally created a page layout for the new book that



satisfied me. It would have a gold cover (TG Book 2nd cover) and was not going to be just about tables of scores, but would have feature boxes that divulged the forgotten history of video game & pinball playing.

By the summer of 2005, six documentary film crews were following Twin Galaxies around -- all seeking to be the first to report on the origins of organized video game playing. In time, all the film crews dropped out leaving only two remaining contenders. One set of filmmakers would go on to produce Chasing Ghosts: Beyond the Arcade and the other would come up with the King of Kong: A Fistful of Quarters.

By July, the film crews had most of their needed footage in the can, and I was now free to work on finishing the 2nd edition of the Twin Galaxies book of world records. This would become the popular gold-covered book that came out on June 1, 2007. To get the book ready for its day of destiny, Billy Mitchell and I had to travel to Washington DC to find the remaining information I needed to complete this volume. As briefly stated earlier, I had decided that the 2nd volume would not just have world record scores, but would also feature snippets of history that documented the arcades, gamers, high scores, and contests of the 1970s-1990s -- for both video and pinball.

So, this plan required a visit to the Library of Congress. The film crew making Chasing Ghosts was intrigued by our plan so they decided to go to the LOC with us and film our efforts to unearth little known facts of video game and pinball lore. Not surprisingly, footage of our trip found its way into the final cut of Chasing Ghosts.

The Library of Congress proved to be much bigger than I expected. Even though our research was focusing only on the history of the video game and pinball arcade, I found mountains and mountains of original reference material to plow through. And, it was all in the form of back-issue magazines.

Billy stayed as long as he could at the LOC, while I stayed for an entire week, going through every back issue of Vending Times, RePlay Magazine, Play Mater, FunSpot Magazine, Variety, and Cashbox Magazine published between the years 1970 and the early 1990s. On top of that, to gather information on the early history of pinball, I had to also go through every edition of Billboard Magazine from 1930 to the beginning of the '70s. When I found that the LOC had gaps in their holdings of Vending Times Magazine, I had to schedule a further trip to NYC to visit VT's editorial offices. Only there could I lay my hands on every issue of Vending Times from the '40s up to the '90s. Between the trips to Washington and New York City, I found myself going home with an estimated 2,000 xeroxed magazine pages. A fact never revealed before is that Billy Mitchell personally paid for all the xeroxing expenses and hotel charges for the trip, simply because he believed it was important to find this information and publicize the untold history of competitive gaming.

And, yes, we found marvelous stuff. For instance, we found historical mentions of the first major pinball championship, which was held in Milwaukee, WI. Held the weekend of May 24-26, 1935, in Milwaukee's Futuristic Ballroom, it was history's first national pinball championship. Called the "Big Whiffle Tournament," the event attracted pinball fans from all over the United States where the contestants played on 200 whiffle pinball tables (whiffle was considered the first pinball

machine) and offered $1,000 in prizes (including a "fine bedroom suite"). This surprising information inspired the creation of trading card #340, shown at right. The story of this championship was one of the stories featured in a two-page "pinball spread" that was researched by Twin Galaxies for the 2007 Guinness World Records book.

Digging deeper into the stacks at the LOC, I found that, on June 29, 1935, history's first company was created for the purpose of setting up coin-op arcades in theatre lobbies. Plus, we found a news story on the All-Japan TV Games Championship which was sponsored by Sega in Japan in 1974. With further research, we learned that the first arcade coin-op equipment poll (later popularized by Replay and Play Meter Magazines) was pioneered in 1948 by Cashbox Magazine. That information was used to create card #2768, shown at right. And, at the time of that 1948 poll, shuffleboard was the biggest game in coin-op entertainment. Next, we saw that Ron Mowry played a pinball marathon in Florida non-stop for 72 hours in 1972. Equipment polls in Play Meter and RePlay magazines showed that in 1981-82, Defender bested Pac-Man in gross revenues month after month, even though Pac-Man would later transcend to world iconic status.

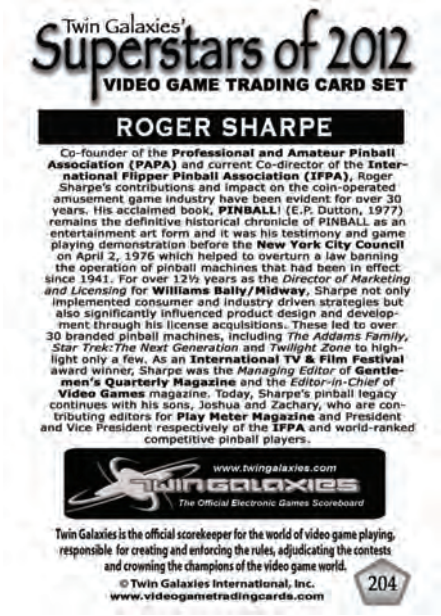
As for contests, there was a plethora of contests. Among them was the 1980 Space Invaders Championship organized by Atari that saw more than 10,000 participants. My favorite contest was the 1984 March of Dimes International Konami/Centuri Track & Field Challenge. Until another larger contest is discovered, this may be the largest arcade contest conducted during the Golden Age of Arcades. According to stories found in a multitude of magazines in the LOC, more than 1 million contestants played Track & Field between April 30 and May 26, hoping to be among three finalists going to Japan to represent the USA. As a fundraiser for the March of Dimes, the event was held in Aladdin's Castle arcades and National Convenience Stores. Gary West of Oklahoma City won the U.S. Finals, but Phil Britt, of Riverside, California, won the World Championship in Tokyo on June 10, 1984. (See card #487 - page 12)

I think my favorite discovery was the story of E. H. Pineau, a pinball player who, according to the June 1, 1935 edition of Billboard Magazine, was called upon to defend the fledgling sport of pinball. The article said: "Syracuse, June 1, 1935. While Justice Leo Yehle and a swarm of police, detectives and lawyers looked on, E.H. Pineau, Syracuse, demonstrated conclusively that the Champion pinball machine, subject of a test case here, is a game of skill, not chance. Samuel Kay, restaurant proprietor, arrested nearly a year ago for possession of the machine, is making a fight that will set a precedent for entire up-State New York, and after two State legislators testified for defense, Judge Yehle gave Kay's attorney, Willis Sargent, permission to prove the game's accuracy. Pineau made the ball do everything. Judge Yehle asked him to score 1,000. He did. Assistant D.A. Homer Walsh asked him to put the ball in a 500 hole, supposed to be the hardest shot. That was a cinch for Pineau. Walsh asked him to get 1,500. He did. Then he was asked to score by hundreds, from 100 to 600. He got 100, 200, 300, 400 and 600. Reversing, he got 1,000, 900, 800, 600 and 500. Pineau's only misses were on request for score of 3,800, when he got 3,900 and 3,600. Court reserved decision, but verdict, expected in about week, is likely to be for machine as the result of Pineau's convincing demonstration. Previously State Senator Esquirol, author of the state law, testified for Kay,

asserting pinball machines never were considered by lawmakers when the bill was passed and that the law does not apply to them at all."

That makes this such a wonderful discovery is that history repeated itself on April 2, 1976, when noted pinball author and enthusiast Roger Sharpe demonstrated his pinball skills in front of a group of New York state lawmakers. Mr. Sharpe's expert testimony was needed because pinball was illegal in many parts of the USA: pinball had been outlawed in Chicago in 1936, in Los Angeles in 1939, and in NYC in 1940. An article in the May, 1976 edition of Vending Times said: "...Roger C. Sharpe, noted author and pinball historian, who, on April 2, 1976, demonstrated to New York City Councilmen that a good player can get a better score, making pinball clearly a game of skill. As he demonstrated his expertise on Gottlieb's Bank Shot pinball, members of the small crowd in attendance applauded in support. One month later, New York Mayor Abraham Beame signed the bill repealing the 34-year-old ban on pinball." (See card #204 - this page)

Despite my exhaustive research, the Library of Congress certainly has more untapped historic gems that will someday be surrendered to future arcade historians. Thanks to the historical treasures found in the LOC, the 2nd edition of the book of records became a guided tour of our arcade legacy, focusing on the gamers and contests of the past. But, there is more to come. Our arcade hobby has a rich legacy that will be examined by Billy and Walter in further articles in Old School Gamer Magazine. With approximately 2,000 xeroxed pages still in hand from the LOC's archival holdings, there are many more stories, trading cards, and magazine articles that can be published here to honor the historical tradition of competitive arcade gaming.



Walter Day - As the founder of Twin Galaxies, the oldest video game scorekeeping and adjudication service in history, Walter Day is known as the creator of e-sports and has often been called The Patron Saint of Video Games. His remarkable efforts to find, verify and catalog video game world records has led to a decades-long partnership with The Guinness Book of World Records.

A GAME-BY-GAME history of the interactive entertainment industry

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Author Brett Weiss knows his stuff... a respected name in the classic gaming community... he provides insightful behind-the-scenes information... suitable for just about any type of video game fan.

—Dave "The Video Game Critic" Mrozek

The Old School Gamer Advisory Board

Doc Mack

Galloping Ghost Arcade/Productions – Doc is the owner of the 600+ arcade game Galloping Ghost Arcade in Brookfield, IL. He's a gift to this industry that is working with the entire arcade scene to grow it and develop it further. His other related enterprises include Galloping Ghost Productions (newly developed arcade games), and Kombat Kon (fan event for Mortal Kombat fans).

Billy Mitchell

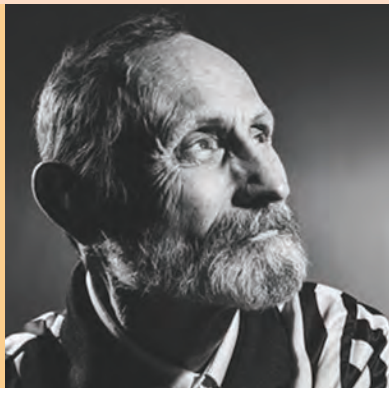
History's most famous video game player. Proclaimed the Video Game Player of the Century at the 1999 Tokyo Game Show, Billy has enjoyed a remarkable career that included history's first perfect score on Pac-Man (3,333,360 points on July 3, 1999) and appearing in the 1982 LIFE magazine photograph that featured the video game superstars of the Golden Age of video games. Famous the world over as the iconic creator of Rickey's World Famous Sauce, Billy is based in Hollywood, Florida and is the co-creator of the annual Kong Off (the official Donkey Kong World Championship).

Dan Loosen

Midwest Gaming Classic / GOAT Store – Dan Loosen has been running the GOAT Store, LLC with his business partner Gary Heil for 18 years. The company was formed when the pair was trying to collect video games at a time that people selling games didn't think about their collectible nature. The company has grown and changed throughout the past 18 years, now having more than 20,000 items in stock, and selling throughout the world! The GOAT Store has expanded to publish games for retro consoles and host the annual Midwest Gaming Classic trade show in Milwaukee, Wisconsin that draws more than 10,000 gamers together. Dan will bring this "behind the scenes" knowledge in his articles.

Walter Day

As the founder of Twin Galaxies, the oldest video game scorekeeping and adjudication service in history, Walter Day is known as the creator of e-sports and has often been called The Patron Saint of Video Games. His remarkable efforts to find, verify and catalog video game world records has led to a decades-long partnership with The Guinness Book of World Records.



Why An Advisory Board?

BECAUSE I NEED ONE!

By Ryan Burger

When this magazine was started earlier this summer I knew a lot of people within the industry, some of them directly, but many of them indirectly. Two of our advisory board are friends I've had in this industry thanks to the Midwest Gaming Classic that I've attended for years (Dan and Doc), and both of them knew I was looking for a niche to be involved in the retro gaming community. The other two I had met momentarily due to friends in common but hadn't spent much time with them other than quick casual conversations, Billy and Walter.

All 4 of them were excited when they heard about what I was wanting to put together with Old School Gamer and all of them come to us with different but intersecting backgrounds and with tons of ideas as to what a magazine can do to serve the retro community of gamers.

There is a fantastic super extended family that gets together either virtually online or in person at the various expos and other events happening all year long across the US, and for some of them around the world. This community has brought us great podcasts, Youtube channels and more, but hasn't brought us a trade magazine that has lasted through a couple years. That's where I come in with my experience in niche publications. My job is to work with these advisors to gear the magazine to what all of you want, working with the fantastic group of writers that have stepped forward to help lead Old School Gamer.

Honestly we are still looking for probably two more members of this advisory board. If you know of someone who could serve in this way, please have them contact me at rb@oldschoolgamermagazine.com or call my office at 515-986-3344x300.

Ryan Burger
Publisher

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Galloping Ghost Arcade

By Old School Gamer Staff

For this inaugural issue of Old School Gamer, I went to the what must be the largest single collection of arcade machines in the world… Galloping Ghost Arcade in Brookfield (Chicago area), Illinois. Bursting at the seams with over 600 games operating at one time this amazing location is run by Doc Mack and his crew for the last 7+ years. I was able to sit down with Doc personally before spending a couple hours in the arcade with Old School Gamer's Aaron Burger.

Galloping Ghost's Doc Mack has one of the absolutely largest hearts for the arcade industry I have ever seen. He has personally consulted with and helped to open over 20 other similar arcades, many of them within the realm of being competitors in the Chicagoland area. I've seen him educating, informing and doing everything he can at the Midwest Gaming Classic for the last couple of years to help others. His involvement in the arcade industry goes well beyond what most people see at Galloping Ghost. GGA's involvement in its production house making new games and bringing previous retro projects back to life, its ownership of the Aurcade scoring system and finder, Kombat Kon where you can attend and meet the actors, programmers and more of the 90s popular arcade series and more

Above: Doc Mack, owner of Galloping Ghost
Other pictures on page: Star Wars Arcade, 1993; Death Race, 1976

Now on to the arcade… when my wife heard I was going to Chicago, she just assumed (correctly) that I would be going to Galloping Ghost, not a DJ store for my other publication, Wrigley Field because I love those Chicago Cubbies, but Galloping Ghost. Galloping Ghost has a nice website at gallopingghostarcade.com and there are plenty of video tours that various YouTubers have put out there on their experience at the arcade, but all of those can't do justice to this place. The only way to do it is to experience it for yourself. And if it's your first time there, plan on 4-5 hours.

I would consider a trip to there being like going to a science center, zoo or museum for the first time. The first time you go, you will want to stay for longer than you initially planned on being there, and then you will want to come back. For instance in between the last time I was there and this most recent trip, they added an additional full room, and found a way to pack another 50+ games into what was their existing space the last time I visited.

Being a gamer from the 1980s and early 1990s and having spent a ton of time at the local arcades in Central Iowa back in those days, I thought I had played everything out

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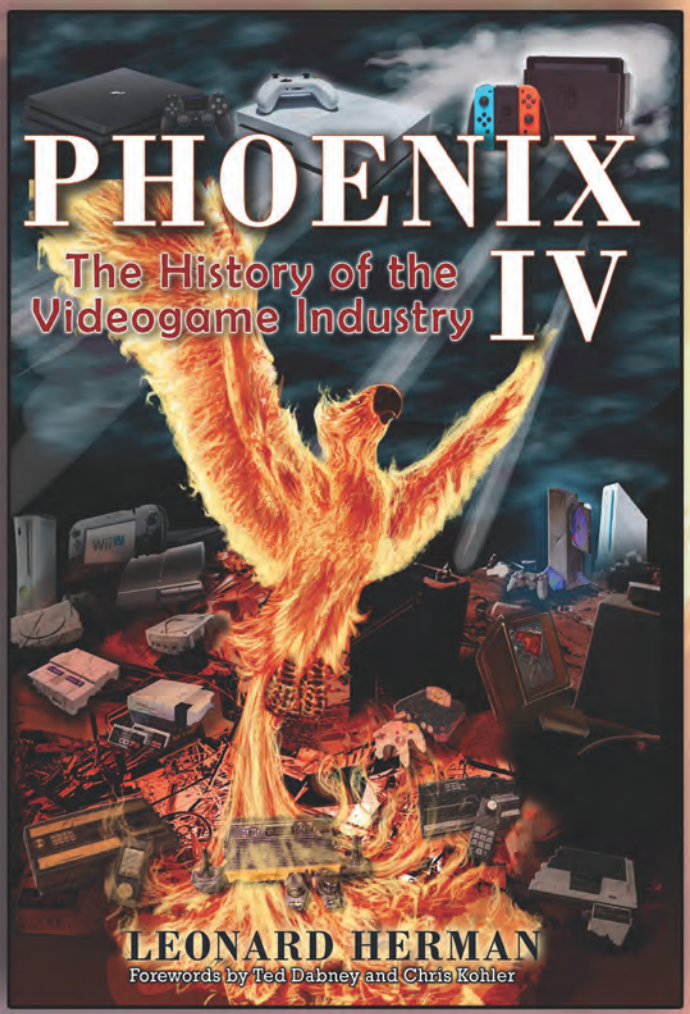

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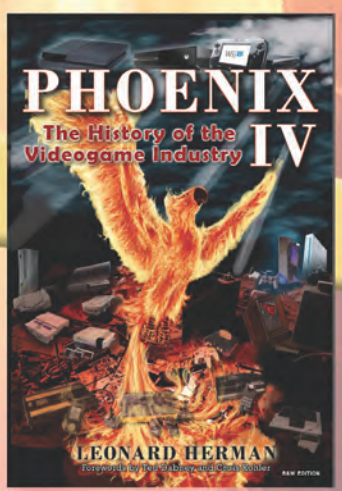

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there. But Chicago is the big city, and this place is just amazing with the collection they have acquired. I was there on a Monday when they debut a new game every week. For those of you that are nerds/geeks like me, the excitement around there is like Thursdays for New Movies at the theaters, Tuesdays at the Redbox when they get new stuff, and "New Comic Book" day that the guys on Big Bang Theory talk about.

The way the place works, which I understand isn't a GGA original but they have helped to spread it heavily throughout the industry, is that you pay $20 for a ticket in the door, and then there are no quarters needed. You can stay all day, or just stay for an hour. $20 (aka two rolls of quarters) is what all of us kids when we were younger would dream of getting from Mom and Dad to play at the arcade, or when we had our own jobs we would go through on a session of gaming at the local "Fun Factory" in my case.

As to the game generations that they have there, really everything from the 1970s Night Driver, Death Race and similar games through the 80s with it's Tapper, Pac-Man, Robotron, Gauntlet, etc, up to the mid 90s and 00s. One big thing that Doc pointed out is that you won't find any Golden Tee games here, and I only found 2 pinball machines in the place. I found hundreds of games that were right in my gaming ballpark that I had never played when I first came out here several years ago. The games are packed in tight and I can only imagine the craziness of Friday and Saturday at GGA. We came on a Monday and there were a couple dozen other people there at the time. Because of the variety of the games available, there was only maybe 4-5 minutes that I ever had to wait to play a certain game that I wanted....if I chose to sit there instead of finding another target for my button mashing, joystick wiggling needs for that moment.

A couple of games that really blew me away that I hadn't seen before was a Star Wars sit down from the mid-1990s and Timber that is done in the likes of Tapper and appears to be where the bartender from Tapper went to after retiring from bartending.

A feature that I noticed and paid more attention to this time in the arcade is the tags on top of every game in the arcade. They list basics of lives and settings that the game is set on, the World Record on those settings and the high scores within this arcade. While I had noticed that before, the QR code to the left of such is what got me going this time. When you install the GGA app on your Android or Apple device you can scan the QR code and get to a whole new archive of information about the games, including descriptions, videos, controls and much more. Other neat features to check out while you are there, is the Hardcore Title, the Mortal Kombat row with autographed pictures from nearly all of the actors, and the Aurcade scoring system mentioned earlier. For an example of this see GGA's App on the next page. From what I could tell they had this system on practically every game in the arcade.

In short if you live anywhere in the midwest, you need to road trip to Chicago, and if you are a fanatic like me and live anywhere in the states, you need to make a Chicago weekend out of it with the family. Take in a Cubs game, and hit the Museum of Science and Industry and the Field Museum of Natural History plus this museum that you can actually play with all the stuff in it, at the Galloping Ghost Arcade!

From top: Gauntlet II, 1986; Timber, 1984; Krull,1983

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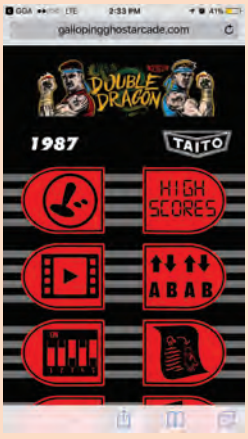
Brookfield, Illinois 60513
(708) 485-4700
http://www.gallopingghostarcade.com

GGA's App

As mentioned on the opposite page, Galloping Ghost Arcade (GGA) has indexed all of its games into this unique QR scanning app. Available on both iTunes and the Google Play Store it is a great way to unlock a ton of data about all of the games in GGA. Download it and be ready to learn!

Install app from from your favorite App store and look for the QR code on each game's high score card.



Scan the QR code with the app to see a screen similar to this one; containing gaming options, high scores, videos and more, for each title at GGA.

Then it takes you to pages like this one, the Aurcade scoring system and a database of high scores for venues that use the system.

On Saturday August 23,2017 the Galloping Ghost Arcade hosted it's annual Mortal Kombat convention called the Kombat Kon! The event originated as Shang Tsungs Fight Night but after five years grew from being held at the arcade to a bigger venues. Now in its seventh year, this year event drew it biggest number of attendants to date and was held at the Holiday Inn in Countryside! This year's event was very special as it commemorated the 25th anniversary of Mortal Kombat being released in the arcade! VIP were announced and sold out quickly.

Kombat Kon featured the majority of the original actors and developers from the original arcade games. The event is a reunion for many of the actors that knew each other even before the iconic video games were filmed. While some of the actors use the arcade as a home base for meeting with fans, it was the first time for some of the actors (Liz Malecki Sonya & Chris Alexander (Johnny Cage) to appear since the early 90s. One of the biggest treats for the fans was seeing several of the actors (Daniel Pesina - Sub Zero, Rich Divizio - Kano, Tony Marquez - Kung Lao, & Phillip Ahn - Shang Tsung) put on their costumes for photo ops!

Fans flew in from all over the world including Australia, Luxemburg, Chile, Argentina and of course from all over the US to come meet with the Legends of Mortal Kombat. They actors signed memorabilia that they brought with them and photos that were provided by Galloping Ghost Arcade.

The Kon also featured several other events through-out the day. Tournaments in all four original arcade games were held with custom Mortal Kombat themed prizes awarded to the winners. Cos-player took part in a costume contest judged by the actors themselves! A presentation of the Insert Coin Midway documentary was shown. A birthday celebration for Brian Glynn (Shao Kahn) took place with a custom cake for everyone to enjoy! An awards ceremony and was also held to thank the actors for coming to meet with their fans. Also three new statues were unveiled of sculptures done in the likeness of the actors!

The evening concluded with an exclusive VIP only after party back at the Galloping Ghost Productions offices in Brookfield. The after party event kicked off with Tony Marquez's band Kung Lao and the Scorpions performing!

The Legends of Mortal Kombat

Daniel Pesina - Johnny Cage, Scorpion, Sub-Zero, Reptile -- Carlos Pesina - Raiden -- Phillip Ahn - Shang Tsung -- John Parrish - Jax -- Liz Malecki - Sonya -- Sal Divita - Nightwolf, Sektor, Cyrax, Smoke -- Ho Sung Pak - Lui Kang -- John Turk - Sub-Zero Shang Tsung, Scorpion, Sub-Zero, Reptile -- Katalin Zamiar - Kitana, Mileena, Jade -- Kerri Hoskins - Sonya -- Chris Alexander - Johnny Cage -- Brian Glynn - Shao Kahn -- Lia Montelongo - Sindel -- Tony Marquez - Kung Lao -- Rich Divizio - Kano, Baraka, Kabal, Quan Chi

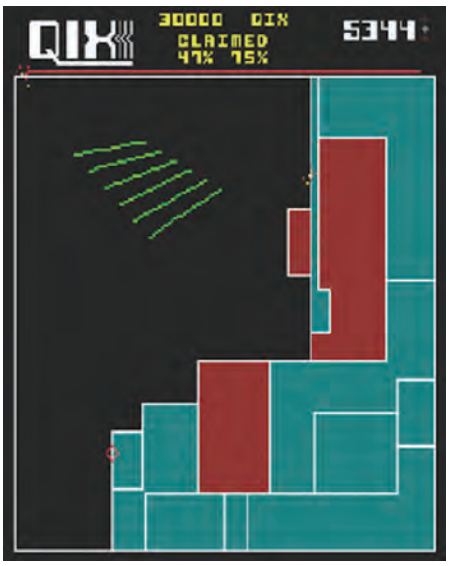
Industry Developers: Josh Tsui, John Vogel, Dan Forden

Get Your Kicks From QIX

By Michael Thomasson

The screen flickers "Your marker controlled with joystick. To draw stix press fast or slow. Claim areas by joining walls with stix." Or so the first three simple sentences of the original Qix attract mode boldly stated. It continues, "Scores based on area. Fast score 250. Slow score 500." Ten words on how I am to be rated. Already a sense of urgency is mounting within. However there is more – a SURPRISE... "Claim more than 75% of playfield for special bonus." What could it be? I must know. All that lies between me and the goal are the "Opponents: Qix, Sparx, Fuse, Spiral Death Trap." These odd and abstract antagonists move in such an uncanny manner. What methods do I need to apply to "Evade Qix" and "Dodge Sparx?" What do I need to do to become a coveted "Kicker" member?

The fall of 1981 and an eleven year-old boy's mind stumbles with many intriguing questions, including the obvious. How do I pronounce this crazy game, anyway [quix], [squix], [quicks], [kicks]? It is only three letters long and my fourth grade education is already failing me!



The true diction is not "QUIX" but "KICKS." There are two stories that explain the possible origin of how the game was named. As with much lore, the tales should be taken with a grain of salt, and not argued amongst friends at classic gaming expos across the country.

The first tales goes something like this: Taito debuted the Qix machine at the 1981 AMOA show. As with such events, the press was on-hand for the event and after Taito unveiled the game, it was made available for play to attendees and honored guests. This was the early eighties and Atari was on top. Much of the camera eye focused on Atari founder Nolan Bushnell. Rumor has it that Nolan took the time to sample Taito's new game, giving the cabinet "kicks" in frustration as he quickly lost his markers to the machine.

While it is not wholly unusual for a product to be displayed before a product name has been assigned, and while this event is recorded to have happened, it is probably more plausible that the second account is more accurate. This alternate story reports that co-designer and programmer, Randy Pfeiffer (half of the rhyming husband and wife team of Randy and Sandy Pfeiffer) had an automobile sporting a vanity license plate stating "JUS4QIX." According to his wife Sandy, Randy enjoyed the phonetically sounding variant so much that he named his game after it: Qix!

While maze games and intergalactic battles ruled the early arcades, Qix was a breath of fresh air and a shot of originality when it appeared on the scene in 1981. Being the first "drawing game" there was nothing like the title in the arcades, and it was very much ahead of its time.

The game was published by Taito, the same company that brought us the fondly remembered Space Invaders in 1979. Unlike Space Invaders and most Taito games, Qix was created in America and not imported from the Japanese market.

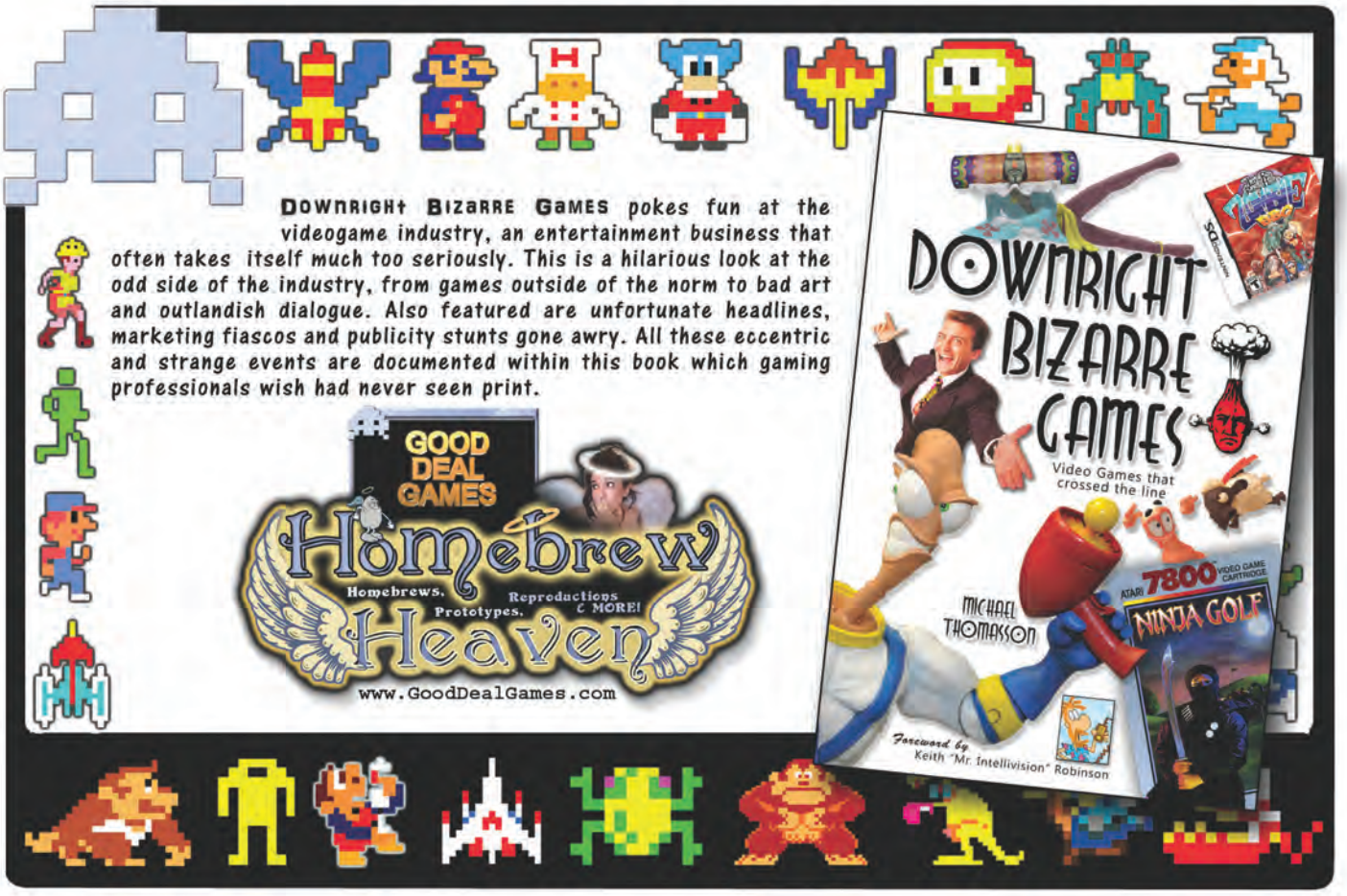
As the attract mode of Qix implies, it is a simple but very challenging strategy game. The player controls a marker that is shaped like a small diamond that moves around the game screen similar to the popular child's toy, the Etch a Sketch. Using two different speed buttons and a 4-directional joystick, the player tries to gain real estate from the unpredictable moving Qix by enclosing parts of the play area a single block at a time. The player must keep his eye on the countdown timer and avoid working himself into an irreversible death spiral. The player is safe from the menacing Qix while not drawing, but it is pursued by and vulnerable to sparks and fuses that can travel on any player-created line paths. This dynamic of always being safe and in danger at the same time is a unique element and a big (ahem) DRAW to the game!

Qix was an immediate hit upon its release. It performed BIG numbers for Taito, especially in more logic-minded location such as on college campuses. Qix was also profitable among older players in bars, where Inebriated clientele fumbled their pocket change into this difficult quarter-eating machine at an amazingly fast rate. The casual gamer, those not wearing "beer-goggles" or of an eager mind were often turned off by the plain nature of the game and color scheme.

The early eighties arcade scene, like many other arenas, had its share of societal rules. For games that required a large portion of playing time, it was a trend for eager players to place their waiting quarters against the glass screen of the coin-op machine to imply that they had "dibs" on the next game. Many game players at the time would brag by learning patterns or strategies that would allow them to take enormous amounts of time on a machine, piling up anxious quarters and endearing and frustrating fans. Since crowds entice more to gather, it makes a dynamic and fuels the popularity. This was NOT the case with Qix. The machine was deemed as "simply unbeatable" by masters of the trade because of the random and unpredictable movement of the dreaded Qix. With an enormous amount of possible movement combinations and no patterns to fool the Qix opponent, even the best of players lost interest when they could not improve their scores and best the Qix cabinet.

Qix vanished from the arcades rather quickly after a short but modest success. Most machines were converted to better earning Taito titles. The arcade version of Qix is a rare find and is becoming more valuable to coin-op collectors and fans alike. Many enthusiasts have been pursuing the Japanese counterpart of the game, known as "Volfied."

After offering an enhanced variant that offered a different color scheme, "Qix



II Tournament," also by the rhyming couple Sandy and Randy Pfeiffer, Taito placed "Qix" in a state of dormancy for years. In 1987, Taito released "Super Qix" to little fanfare. Taito also licensed "Qix" for release on the Nintendo Entertainment System and Game Boy. Unfortunately, these reissues of the Qix titles sold quite poorly. When the rise in popularity of strategy and puzzle games emerged with the release and continued success of Tetris, Taito chose to revive the series as "Twin Qix" in 1995. However, Taito was too late and a slew of other manufacturers had already overcrowded the market with competing games of "Tetris" variations or other thinking games such as "Bust-A-Move", "Columns", "Klax" and a handful of others.

Qix is currently enjoying a loyal cult following In 2004, a small publisher by the name of Mud Duck, quietly released the latest Qix installment, Qix Neo, for the original Playstation. A year later, a classic game compilation that collected twenty-nine Taito coin-ops was released under the moniker Taito Legends. This collection, available on the Playstation 2, X-Box and PC, includes many fantastic games, including Volfied and Super Qix.

HOW TO PLAY QIX AT HOME

- Original Qix
- Atari 5200 (1982), Atari XE (1982), Tandy (1984) -- Released as "Quix", Apple II (1989)
- Commodore C64 (1989), Commodore Amiga (1989), PC-Compatible [MS-DOS] (1989), Nintendo Famicom (1990), Nintendo Game Boy (1990), Atari Lynx (1991)

QIX SEQUELS

- Sega Genesis -- Released as "Ultimate Qix" (1991)
- QIX RIP-OFFS
- Super Nintendo "Cacoma Knight in Bizyland" (1993)

Michael Thomasson is one of the most widely respected videogame historians in the field today. He currently teaches college level videogame history, design, and graphics courses. For television, Michael conducted research for MTV's videogame related program Video MODS. In print, he authored Downright Bizarre Games, and has contributed to nearly a dozen gaming texts. Michael's historical columns have been distributed in newspapers and magazines worldwide. He has written business plans for several vendors and managed a dozen game-related retail stores spanning three decades. Michael consults for multiple video game and computer museums and has worked on nearly a hundred game titles on Atari, Coleco, Sega and other console platforms. In 2014, The Guinness Book of World Records declared that Thomasson had "The Largest Videogame Collection" in the world. His businesses sponsor gaming tradeshows and expos across the US and Canada. Visit www.GoodDealGames.com.

Ed Averett is KC Munchkin

AND OVER HALF THE OTHER GAMES ON THE ODYSSEY

By Michael Thomasson

Ed Averett developed a whopping twenty-four games for Magnavox's Odyssey2 system. Responsible for roughly half the game library, Ed believed in the Odyssey2 and kept it humming long before Magnavox and parent company Philips saw the light. His creation, KC Munchkin, pitted Magnavox against industry leader Atari in the courts over the fate of maze games resembling Pac-Man.

M T > *You generally stay off the radar and rarely grant interviews. How did Old School Gamer Magazine get so lucky?*

E A > During the Odyssey years, staying off the radar was very intentional. First, there was just no time, I was locked down 24/7 designing games trying to show the potential of the Odyssey system and video games in general. Those were the days when there were many doubters of the future of video games and computer graphics. Just like today, it's hard to see how impacting both will be 30 or 40 years into the future.

Second it would not have served Odyssey's best interest if everyone knew there was only one person working on games for Odyssey^2 vs all the game designers at Atari.

I've always been a fan of listening to others unless I really have something worthwhile to say. So I've done a lot of listening and watching over the last 30+ years.

M T > *Lets start at the beginning. Do you ever feel that the Odyssey^2 lead engineer, Robert Lenarducci, got the short end of the stick?*

E A > Roberto was to Odyssey^2 what the Woz was to Apple. Roberto was designing the Odyssey^2 at the same time the Apple 1 was coming out. Roberto saw the potential of the Odyssey^2 as a computer, thus the keyboard. He also designed the first speech hardware for general use. He was all of that and a great person to work with at Magnavox. Roberto's hardware design gave Odyssey^2 every chance to dominate and not be a footnote. So has he been overlooked?… Absolutely.

M T > *Magnavox and Philips seemed prejudiced about the Odyssey^2 in the beginning. A ten percent share, even during the best of times, must have been discouraging when measured against the mighty Atari. What changed the sour outlook and gave the system a fighting chance in the marketplace?*

E A > Magnavox DNA was building commodity products like radios and TV consoles where the basic technology seldom changed and the value add was manufacturing efficiency and style changes. So, they saw the Odyssey series in that light. It was very hard for them to evolve that basic DNA to embrace a product that was so different. When they saw the profits that could be made from video gaming, they tried really hard to change but the change was too little and to late.

But neither Atari or Magnavox/Philips appreciated that with great profits comes the need to reinvest those profits in new, more advanced hardware to keep giving their customers exciting experiences. There is only so much that can be done with 7 colors and 8x8 graphic figures.

The fighting chance Magnavox always had was manufacturing, distribution and the 8244 chip from Intel.

M T > *Why did you believe in the system when it seemed that no one else did.*

E A > I believed in the Odyssey^2 because at the time for the consumer, Odyssey^2 was the most advance graphics system in the world and could solve a universal desire… having fun and feeling good about overcoming challenges.

Ed Averett in his home lab with his family where he developed many of the games he's known for.

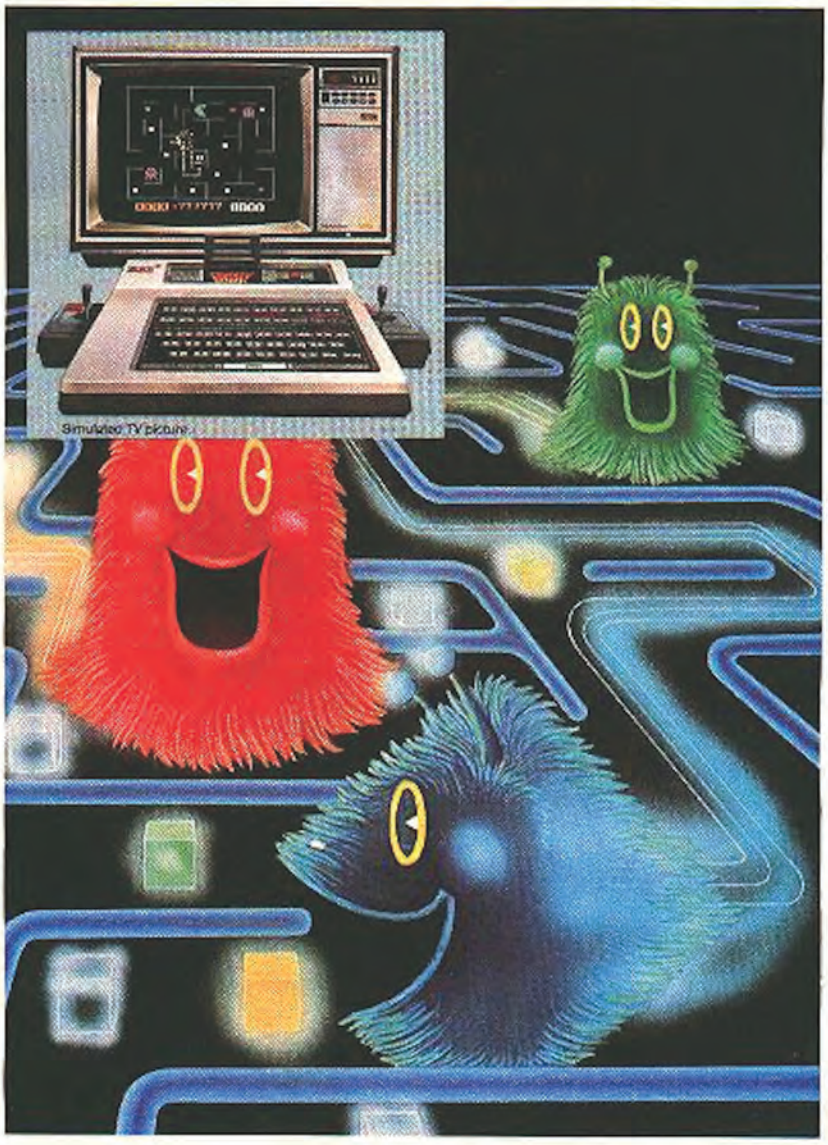
M T > *The original game mechanics of K.C. Munchkin were more diverse before Magnavox asked you to make the game more " Pac-Man -like". Do you remember details about any early versions of the game? What did we miss out on.*

E A > I was very happy with the changes that allowed me to give KC more of a personality, things like the bebops, the color, the smile and the grin, a bit of a personality. I had really wanted to add that same level of differentiation to the ghost/chase characters.

But remember the Magnavox legal mindset was that if I could reproduce the original Pac-Man exactly, that would

ON YOUR MARK, GET SET, MUNCH.

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



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

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

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

The better you play, the greater the challenge!

Program your own mazes.

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

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

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

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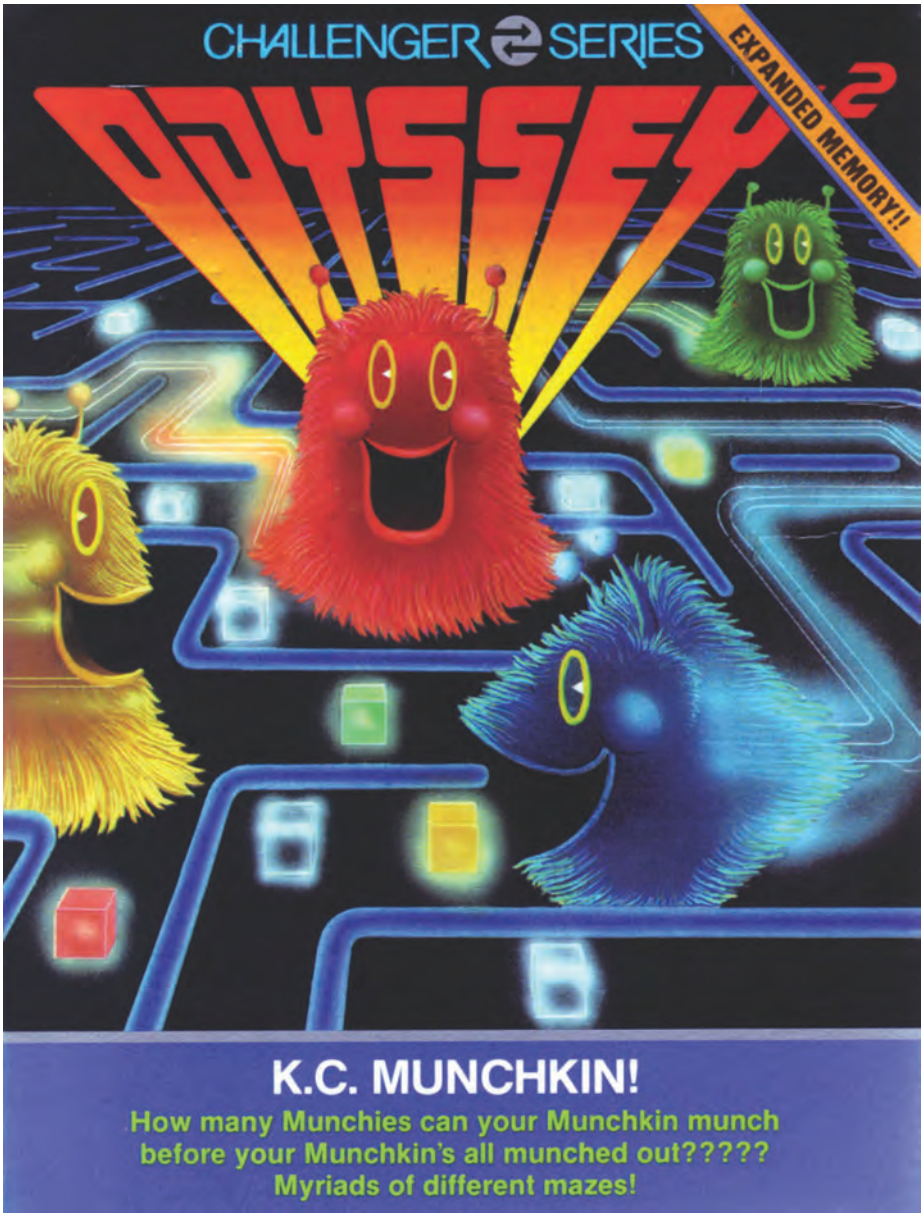
ODYSSEY²

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



have been fine as long as I did not copy the code itself. Based on their experience with Atari and Pong, that was not an unreasonable mindset. So in that context they did give me a lot of room to be creative.

MT > *You were employed at Intel when they sold the 8244 chip, the first programmable sprite based game chip, to Magnavox. As it turned out, the chip design was flawed and delayed the release of the Odyssey² . Do you think the positioning of the Odyssey² against Atari in the marketplace would have been much different if the Odyssey² had reached store shelves a year earlier as originally anticipated?*

EA > Actually, the design of the 8244 was not the problem. There was a masking layout mistake. That was in the day when the all the masks was laid out by hand with no computer checking.

If the 8244 had arrived on schedule, I doubt if history would have changed that much. When the Odyssey² was launched, it was still the most advanced graphics system available and Magnavox had excellent manufacturing and distribution systems. The delay did however significantly impact Magnavox's confidence that they understood the speed of the market and complexity of video games business.

Also, the culture of Atari could not have been more different than that of Magnavox. If the Atari culture was needed to succeed in video games, they knew that was a business that was not suited to their DNA.

MT > *You worked your magic in your Tennessee home. Describe your work environment there?*

EA > Ha, ha...It was total chaos! We foolishly decided to undertake a major remodel, 3 years, while living in the house and there were 2 small children to add to the distractions. The really good part is that it was a very dynamic and highly energetic world just like a video game.

A huge advantage was only a 2 hour drive to Magnavox in Knoxville as opposed to taking all day to get to Magnavox from Silicon Valley. Remember, there was no Skype in those days.

MT > *Whatever happened to the cocktail napkin that birthed the Master Strategy game series? Those were all great—especially The Quest for Rings !*

EA > I believe Mike Staup, the VP in charge of video games, took that back to Magnavox. I credit Mike for pushing outside of the box in getting that idea to reality. It was not an easy sell for him.

MT > *Your wife Linda also helped you develop some of the Odyssey² titles. Certainly it must have been that experience that set her up for success as a Vice President at Microsoft.*

EA > I think she will agree that she learned that there were other thinking styles that can be successful. Linda and I tend to approach solving problems and design from the polar opposite direction. Her natural approach is perfectly aligned with the needs at Microsoft. What we learned working together was very helpful to us both.

MT > *You were asked to program a Pac-Man like game. As a result, K.C. Munchkin resulted in a landmark legal ruling (see Bill Kunkel's "My Three Trials: Experiences as an Expert Witness in the Electronic Games Industry: Atari v Magnavox") which would intimidate most individuals. What legal considerations were contemplated by Magnavox, and what was your reaction?*

EA > First, in my opinion, both the Federal Court's and the Appeals Court's rulings were correct. They were actually ruling on a totally different argument on copyright infringement...

The Federal Court was addressing copyright infringement from the point

of view that both Magnavox and Atari presented at the time; that is, were their codes, algorithms or circuitry copied? There was no evidence or discussion on the issue of "look and feel" copyright infringement in the Federal Court. Therefore, Magnavox was confident in victory. That was reinforced by the judge's ruling, strongly in Magnavox's favor.

Having lost on that approach, Atari cleverly changed tactics to argue an infringement based on "look and feel" in the Appeals Court. Its ruling was based on the evidence presented in the lower court, as the Appeals Court does not accept new evidence, and only rules on the evidence presented in the lower court's ruling. Since none of the significant differences in "look and feel" could be considered in the Appeals Court ruling, there was no attempt by Magnavox to address the "look and feel" differences there. So, the Appeals Court ruling was logical given the evidence it had to consider. It would have been helpful if the Appeals Court had addressed Atari's change in position and referred it back to the lower court, but that's not what happened. There was a lot of frustration at the time; not because we lost, but by the way we lost.

Now a little background...

At that time, the understanding for what was legal in video games was set by Odyssey's original ball and paddle game and Atari's Pong - another ball and paddle game. It concluded that if what was on the screen was not a result of copied code or circuits then there was no infringement. This was determined by an out of court settlement between Magnavox and Atari and thus had no legal precedence, but certainly influenced the thinking at Magnavox and Atari. However, there could not have been more similar "look and feel" games than the original Odyssey's Tennis game and Pong.

In my case, I doubt anyone confused KC Munchkin with Pac-Man because of looks or personality. In addition, my thinking was to develop a different, better "Western"…more later on that. With a character more likable and a game that improved on the concept of Pac-Man, you actually had a different, happier feeling. The character and the challenges were different. The player was not controlling a robotic "chomper" but a character that interacted and made you smile. Remember the graphic limitations of home video games of that day, an 8x8 mono matrix. Since the "look and feel" issue was not addressed by either Magnavox or Atari in the Federal Court, I did not get a chance to elaborate on how KC Munchkin had achieved this.

I remember clearly reasoning for myself how TV westerns of the day had similar infringement issues. In all the TV westerns, the setting was the same. The characters moved around on horses, saved damsels in distress, and got the 'bad guys'. But you knew if you were watching The Lone Ranger or watching a Roy Rogers western. There were observable differences. Similarly, it's my strong feeling that there were significant differences between KC Munchkin and Pac-Man such that no one would buy KC Munchkin and think they were getting Pac-Man. If I logically compared KC Munchkin's and Pac-Man's "look and feel" to TV westerns, KC Munchkin was not close to having infringement issues. But the Appeals Court could not consider these points since they were not presented in the lower court.

So, the frustration was that the "argument" of infringement changed from the Federal Court where Magnavox won strongly, to the Appeals Court where we lost. The evidence had to stay the same; that is, no code copying. And none of the "look and feel" differences could be introduced to the Appeals Court.

It was for Atari a big short term victory taken from the jaws of defeat. But as we all know, the long term fate of Atari and Magnavox video games were the same for similar reasons.

M T > *Okay, here is a question that I've been asking myself for years. Why are there two versions of K.C. Munchkin? In some iterations, one of the ghosts is blue in color. In another, that same ghost is yellow?*

E A > That was not by my design. So I can only conclude that it was a result of a ROM or chip problem. A collector's item? :)

M T > *Your final game for the Odyssey² was Attack of the Timelord . How did you feel in your gut knowing that your time with the Magnavox's machine was coming to an end? Losing that mental connection with millions of players must have been tough…*

E A > That was indeed tough. I really, really enjoyed designing games for Odyssey², working with the people at Magnavox and Philips, and most of all the relationship I had with the players. Huge mail bags from all ages and all over the world were sent daily.

I remember quite clearly pushing back from my DECwriter when I finished Attack of the Timelords, taking a deep breath and knowing it was the end of a era. All that I could do had been done.

M T > *Why were you not involved with the failed Probe 2000 project, which aimed to release new games for competing consoles such as the Colecovision?*

E A > There were three reasons:

1. Linda was able to convince me that attention needed to be focused on our family and not making any more $s.

I credit her for the foresight as it was time wisely spent. People are important not just making money.

2. Intel was not interested in pursuing the video game or graphic business after I left. They were the best of the best when it came to silicon chips but they had a difficult time seeing the importance of graphics in the future.

3. Magnavox and by then, Philips, were most interested in driving down the cost of a game system secondarily to driving the graphiccapability of the system - again the DNA of a large scale commodity product manufacturer. We can all now see clearly that newconsoles need to be many times more powerful that the last version - not an incremental improvement.

It would have been a much harder decision to exit completely if Magnavox/ Philips had pursued evolving the Odyssey² into a personal computer. There was a complete design to that end done by Roberto to compete with Apple II and Dell's PC machines. That would have been a very interesting path for all.

M T > *Do you miss assembly programming and working in binary?*

E A > When I was young, I loved my bike. It was simple and straight forward like assembly programming. I understood exactly how it worked and what was possible to do with it. But now if I want to fly across the country I really appreciate air travel with all its complexities. And I'm really looking forward to self-driving cars to free up more of my time.

So do I miss programming in assembly? Yes but am I really happy to have the power of C++? Absolutely.

M T > *During our conversations, you have referred to video games as, "real time graphic problem solving." Care to expand on that?*

E A > Video games at their core present problems to users graphically. When solving problems graphically in this way was first presented in the Odyssey^2 and Atari, almost everyone embraced the basic idea.

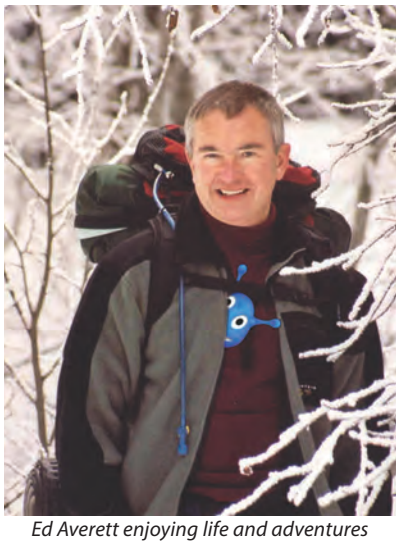
Of course, some games require quick reaction times and some require deep thought but they all are still about presenting a problem graphically.

Almost all of the problem solving in video games today are "make believe" problems. The future that excites me most is where video games present real life problems to be solved. KC Returns! attempts to show that technology has progressed to the point that we can now start "thinking" about solving problems related to DNA among other things. I'm quite sure when my grandchildren are my age and they get sick they will be able to see the issues in a video game format and be able to solve their cold, their flu, or their cancer themselves. Now how cool will that be! We are going down that path now at warp speed. Someday, folks will look back at our current games and think of them in the same light as the very first video games.

M T > *Even the biggest KC fans may not be aware that a series of KC children's books are available on Amazon. What is the story behind these… stories?*

E A > KC children's books do the same thing that the addition of the board did for the Master Strategy game series in the Odyssey^2. It expands the story line beyond what is currently possible in the video game.

The books specifically give a richer example of where we are going. The books are directed at young children



Ed Averett enjoying life and adventures with KC Munchkin

because it will most likely be them that make the possibility that I see for video games, a reality - that is, solving real life problems that will all have.

M T > *You still own the intellectual property to the K.C. Munchkin name and character, and recently unveiled your upcoming KC Returns project. Please tell us about this exciting new project!*

E A > KC and I have watched from the sideline as video gaming, real time problem solving, has made giant progress over the last 34 years. I found very little I could add to what was being done by everyone in the industry. But now, I believe we are at another inflection point where technology (processing power, graphic power, memory available and the cloud) have advanced to the point where there are whole new possibilities for video games. That is, applying video gaming attributes to solving real world problem.

KC Returns! Attempts to show a glimpse of that future, a future where anyone can explore in rich graphic detail DNA on a $200 computer. The game part (everyone wants to have fun) of KC's Returns! embraces some of the best of KC's past with enhancements possible today. There is a learning option about DNA that allows for even more enhanced game play.

KC Returns! Is basically a Suite of 3 interconnected parts: 1. Exploring, 2. Learning, and 3. Playing (game)

My hope is that by playing or seeing KC Returns!, DNA will be a bit more demystified and understandable. And that some will see a future where working with DNA will be as easy and common as working with a word processor today, except a whole lot more fun.

Why DNA? It affects all that we are and all our health issues - from colds to cancer. If that was not enough, DNA will play a significant role in the future of computing and memory storage. It's really important to understand.

KC Returns! is free to all. It's my gift to my grandchildren that I'm sharing with everyone.

It's currently available in the Microsoft App Store and based on feedback from my friends, a new, significantly enhanced version will be available in the coming months.

THANK YOU! Old School Gamer Magazine thanks Ed Averett for making the Odyssey2 sing! In our minds, he'll always be the "Wizard of Odyssey."

Be sure to check out the KC RETURNS website! http://www.kcmunchkin.com/

Michael Thomasson is one of the most widely respected videogame historians in the field today. He currently teaches college level videogame history, design, and graphics courses. For television, Michael conducted research for MTV's videogame related program Video MODS. In print, he authored Downright Bizarre Games, and has contributed to nearly a dozen gaming texts. Michael's historical columns have been distributed in newspapers and magazines worldwide. He has written business plans for several vendors and managed a dozen game-related retail stores spanning three decades. Michael consults for multiple video game and computer museums and has worked on nearly a hundred game titles on Atari, Coleco, Sega and other console platforms. In 2014, The Guinness Book of World Records declared that Thomasson had "The Largest Videogame Collection" in the world. His businesses sponsor gaming tradeshows and expos across the US and Canada. Visit www.GoodDealGames.com.

Preserving the Past: Patrick Scott Patterson

By Brett Weiss

Texas native Patrick Scott Patterson is a video game advocate, historian, and preservationist. He works tirelessly to ensure the legacy of the industry and culture so they are not lost to time. Patrick took time out of his busy schedule recently to answer a few of my questions about his history with gaming, the state of retro game collecting, and much more.

B W > *What was the first video game you played, and what were the circumstances?*

PS P > It was September 1981, and I was just shy of turning six years old. It was a Pac-Man in the laundromat my mother went to at the time. I was being rowdy in there like an almost six-year-old tends to be, and she told me to go sit down and be quiet. She sat me next to the game, so naturally a bright yellow cabinet with cartoons on it would attract me. I got up to see what it was, asked for a quarter and the rest is history. I can still visualize that moment like it's happening now, despite the fact that I couldn't tell you anything else that happened in my life around the same time. That Pac-Man moment struck me in a way that has continued to this day.

B W > *When and why did you start collecting games, as opposed to simply playing them?*

PS P > That really depends on how you want to define all of that. Technically, it was as far back as the mid-1990s when I started hunting games older than the then-current cycle, but being just out of high school I didn't have the means to pick up nearly as much as I would have liked. In the years in between, I dabbled in it here and there but only seriously started hunting again like I did in the '90s early last year, and this time I have the means.

B W > *Do you recall the Great Video Game Crash of 1983/84? If so, did you buy a lot of heavily discounted games, and do you recall any specific bargains?*

PS P > I very much recall the crash; it was actually one of the first things that got me interested in video gaming beyond just pixels on the screen. I was still very young and wanted to try and understand why and how something so popular would suddenly be considered a "dead fad," and took in all I could since that day to try and learn what happened. At the time, I didn't have a console at home but rather a Commodore 64, so there really weren't as many deep discount opportunities for me as there were for Atari 2600 owners and the like

B W > *What is your favorite video game console and why?*

PS P > Of all time? I'll go with the NES by a nose, as it did so much with so little power and literally re-invented console video gaming. No longer did the biggest games have to be arcade ports, and so much new and exciting variety was added throughout the lifespan of the console. Plus, many of the games on it aged really well, something I can't say of many Atari VCS titles or, for that matter, too many of the titles that came later on platforms like the PlayStation.

B W > *What was collecting like 10 years ago, as opposed to now? What about 20 years ago?*

PS P > The basic rules of collecting anything vintage really never change, and those that claim otherwise aren't really paying attention. Yard sales and thrift stores are mostly going to be full of stuff that's 10 years old or less, which is why older games dry up. It has nothing to do with more people hunting or whatnot, just the same basic rules that applied way back when. The only real change is eBay, which I feel actually drives prices DOWN by giving the public access to a greater supply than we had before it. My wife and I dealt in collectible toys at the time eBay was introduced, and we saw the values dip—not rise—as a result of it. If you look at Atari prices before eBay and after, you'll see a huge dip as well. Only the truly rare stuff is the exception, because it's actually truly rare.

B W > *What are some of the better, more valuable finds you've made in the wild?*

PS P > I've uncovered unreleased

Patrick Scott Patterson and Charles Martinet - "The a-voice of a-Mario"

and undamped prototype games and developer samples out there, which I'd have to say is a real thrill. As far as production stuff, I've managed to locate titles on most of the 8-bit and 16-bit consoles that are triple digit value titles—monetarily anyway. I think too many people are so focused on the monetary value of a title that they miss the historical value, and the two don't actually align. My personal favorite console that I've turned up so far would probably be the TurboDuo, complete with three controllers—two of them never used.

B W > *How, when, and why did you get interested in industry advocacy and the preservation of historical video game items?*

PS P > As I noted earlier, I started getting interested in the stories beyond the games at an early age. The first example was probably when I spotted the back of the Pac-Man machine at my first arcade hangout: the Electric Cowboy Casino in Garland, Texas. That told me where Midway was, which led me to calling the operator for their number, which led me to calling them to ask questions galore, which then led to me getting in huge trouble with my dad for the long distance charges. That would be in 1983. I kept calling from time to time, though, and kept getting in trouble…but I was also learning about games that hadn't come out yet, which was really cool back then.

The first time I started thinking about preservation was in the later 1980s and all through the 1990s, as I saw how many arcade games were converted away and how many people had gotten rid of their old stuff. I started there by collecting pre-Crash books and magazines from used bookstores and the like. Thing is, I was still young and foolish and therefore too short sighted to see that the post-Crash stuff would also go on to have similar value both historically and monetarily, and I didn't take care for that era's stuff as well as I should have.

Eventually, I logged onto the internet for the first time in 1997 and instantly learned that there was more interest in the older stuff than I thought there was, but there was also a lot of waste and a lack of detailed historical information. So rather than wait for other people to do it…

B W > *Why is retro gaming so popular right now?*

PS P > What's going on right now goes beyond nostalgia, which is why I don't see it fading away. What we have is a world where the first generations of gamers have grown up and are now the ones creating content. I'm not just talking YouTube and Twitch, either, but also movies, television shows, music, and books.

This, combined with the fact that older titles are now available via download on countless platforms, has not just appealed to the older generations but also introduced a whole new generation to these classic games. If I wear a Pac-Man t-shirt these days, I have more kids come up and comment on it than adults. This wasn't a thing in the past, as a lot of titles simply died off once a console cycle ended.

It's not just gaming, either. The same stuff is happening in other forms of entertainment. You can talk to high school kids now who know Nirvana and Hendrix. You can see online where the younger generation is enjoying Saved by the Bell and Bob Ross. The ability to have instant access to content on demand has given new life to all eras of entertainment, and I don't see where that's going to change.

Whereas it once seemed like a game like Centipede would eventually be forgotten, it will now live on just as I Love Lucy or classic Beatles songs.

B W > *What are some of your favorite items in your collection and why? What are some of the more valuable items in your collection?*

PS P > My favorite items are the ones that you can't really assign a monetary value to. Sure, I like finding $100 games for $1 like anyone does but the real joy for me is sifting through the production stuff to find the production samples, prototypes, and various memorabilia that can help tell a larger story. I'm sure the prototypes

I have for Akira on the Game Boy have large monetary value to someone, but the desire to preserve them outweighs the potential monetary value.

As I noted earlier, I think too many in the retro gaming world focus on monetary value only. Sure, Little Samson is cool, but that $5 copy of Bases Loaded you dismissed comes with a lot of great childhood memories to someone, not to mention to the people who worked hard to develop and publish it. It was the first time I recall my Nintendo talking and something I played with my friends for years. That goes above and beyond the price tag.

B W > *Where do you see your collection moving forward? Do you have ultimate goals?*

PS P > If you'd asked me in January of 2016, I'd have answered as to how my focus was on printed materials and promotional items, etc. I thought there were enough people out there preserving games and consoles, only to see a ton of stuff that proved my opinion on that to be wrong. The first batches of games and the like came along as I was hunting for other items, and it all just kind of took on a life of its own. Right now, I've been so busy accumulating it that I haven't really mapped out the endgame yet.

Given what some of these hunts have turned up, I think a physical location at some point in the future is certainly something I should consider. In the meantime, certain items will travel with me to events or be on loan from me in places so people can see them and experience them first-hand.

B W > *Where do you see video game collecting in general moving forward? Five years from now? Ten years from now? Will prices continue to go up, stabilize, or begin to drop?*

PS P > It will go as it always had. Some things will level off or drop back, only to rise again years later, while stuff people are dismissing as commonplace or worthless now will skyrocket. Let's not ignore the fact that Stadium Events was worth less than $1 just 20 years ago or that Kay Bee Toys struggled to sell Earthbound on clearance for $18 around the same time.

I think what will go up is the stuff people are wrecking for emulation trash today—stuff that has zero nostalgic value because they stripped it all away to make stuff that won't have the same staying power. Stuff we're passing up left and right—like Guitar Hero stuff—will hold value beyond anything we can see right now. Don't forget that there's also always the pop culture impact. You never know when a TV show or movie or book will impact pop culture in a way that will send an old game soaring in demand. It's happened a lot of times, and the odds are higher than ever of it happening again and again now.

*John Newcomer (Joust creator), John Hardie (museum curator), Warren Davis (Q*bert programmer), Patrick Scott Patterson and Katy Barber (game historian)*

B W > *Anything else you care to share about video game collecting, video games as collectibles, or anything else related to the hobby?*

PS P > People in the hobby need to stop living in a fish tank that assumes everyone knows the value of gaming stuff today or that the production numbers of a product mean anything now. We live in a wasteful society that consumes merchandise as quickly as it can, only to discard the remains once they no longer see it as useful. The majority of people have been trashing video game stuff for decades, and the majority of people STILL DO. It matters not that the grandma over on Main Street could look up information if she wanted to—the fact is that she won't bother to do so before she sticks her kids' old NES collection into a thrift store donation bin or out by the curb.

What we have out there right now are the survivors. The items that have managed to remain intact until now, and they need to be seen as and treated as that. There's no reason to turn them into lamps and lunchboxes or "upgrade" them into emulation junk that robs them of what made them special in the first place. Even if something SEEMS common, it's not nearly as common as you'd think, nor are they making them anymore.

Anyone who really loves this stuff is going to try to see that and do what they can to take care of what they have, or nothing is going to be left down the road. It's up to us, it really is.

Brett Weiss - A full-time freelance writer, Brett Weiss is the author of the Classic Home Video Games series, The 100 Greatest Console Video Games: 1977-1987, Encyclopedia of KISS, and various other books, including the forthcoming 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, Fangoria, and AntiqueWeek, among others.

Old School Bargain Bin: Q*Bert

By Brett Weiss

Welcome to the inaugural edition of Brett's Old-School Bargain Bin, where I'll be pointing you to games that won't break your bank account. Instead of rushing out to buy a Nintendo Switch for $400 (if you can find it), plus a couple of $60 games, why not kick back on the cheap with some retro gaming goodness?

Since I had the distinct pleasure of meeting Q*bert creator Warren Davis recently, I decided to start by looking at the straight-up Q*bert port for the ColecoVision and the reimagining/expansion of the concept for Sony's original PlayStation. The games will set you back about $7 each—cartridge only for the ColecoVision, complete for the PlayStation.

Q*BERT - COLECOVISION

- ColecoVision
- Publisher: Parker Brothers. Developer: Parker Brothers.
- Maze/Puzzle/Non-Scrolling Platformer, 1 or 2 players (alternating). 1983.

Most anyone who haunted the arcades in the early 1980s remembers Q*bert. It was a quirky game with unique controls, addictive gameplay, crisp graphics, bright colors, and a humorous protagonist. It was a game boys and girls and men and women could enjoy. It was cute and easy to learn, yet challenging once you got past the first couple of screens.

When Parker Brothers began licensing popular arcade games for the ColecoVision, fans of the system were excited that they could play high quality versions of such titles as Gyruss, Popeye, and Star Wars: The Arcade Game on what was then the most advanced gaming system available. Along with Frogger, the most highly anticipated of the Parker Brothers ports was undoubtedly Q*bert.

With its 3D playfield and cartoonish lead character, Q*bert was a hard game to convert to home systems, but the ColecoVision version is pretty darned good, despite the absence of two enemies: Sam and Wrong Way. This isn't a big deal, though, because Slick and Ugg are included, and they behave in similar fashion (respectively). The graphics aren't as vivid as the coin-op original, and Q*bert's eyes are hollow, but overall the visuals are adequate to the task. Also, the between-screen animations, which are missing from the Atari 5200 version, are included.

In this game, you guide the iconic title character, a curious little fellow with a round body, a long snout, and stumpy legs. You must hop him around a pyramid of cubes, changing the color of each cube as you land on it. When you have changed all of the cubes to the destination color, you advance to the next level. As you progress, the action speeds up, and you will reach levels in which you need to change the color of the cubes more than once. Thanks to the unusual playfield and diagonal movement, the manual recommends that you hold the joystick at an angle, and this technique works pretty well and is certainly better than the awkward Atari 5200 game, which requires you to hold a button down when you jump.

While you jump about the pyramid, you should avoid Red Ball and Purple Ball, the latter of which turns to Coily the snake when it reaches the bottom of the playfield. The only way to get rid of Coily is to hop aboard a flying disc, which will take you to the top of the pyramid, leaving Coily to hop off the playfield (if he is close behind you when you jump on the disc). The number of discs and their placement to the sides of the playfield depend on the level and round you are in.

A little guy named Slick will reverse your color changes from time to time, so be prepared to retrace your tracks. Also beware of Ugg, an ugly creature that appears on the lower portion of the playfield and travels sideways and upwards. If you hop on one of the bouncing green balls that occasionally appear, all of your enemies will momentarily freeze. When Q*bert gets trounced by an enemy, he lets loose with a garbled expletive such as #!@*$&!

While the very best arcade ports for the ColecoVision, such as Lady Bug, Mouse Trap, Frenzy, and Pepper II, were made by Coleco, Parker Brothers was no slouch in this department, as Q*bert so ably attests.

Q*BERT - PLAYSTATION

- PlayStation
- Publisher: Hasbro Interactive. Developer: Artech Studios.
- Maze/Adventure Puzzle/Platformer, 1 or 2 players (alternating). 1999.

During the late 1990s, Hasbro Interactive published modern versions for home consoles of several arcade classics,

including Frogger, Missile Command, and Pong. Among these updated remakes, my favorite was Q*bert, which stayed true to the original gameplay while expanding the areas where you hop far beyond a simple pyramid.

The disc includes a fantastic replica of the original game, a graphically enhanced version of the original game, an utterly mesmerizing Adventure mode, and a highly competitive, endlessly enjoyable Head-to-Head mode.

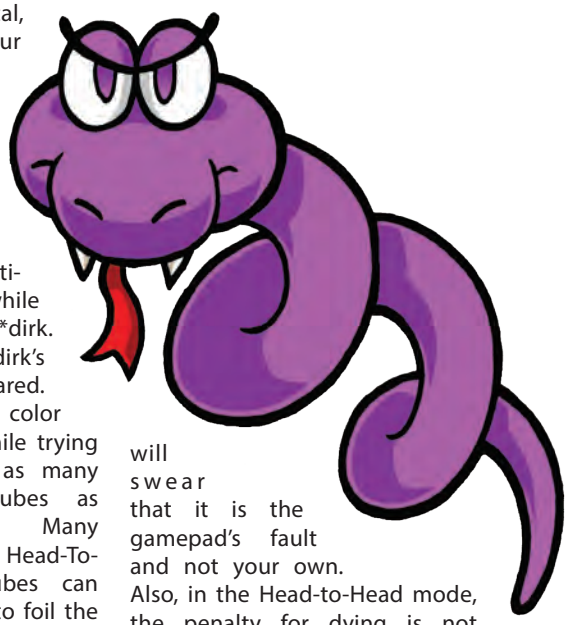
In the Adventure game, Q*bert's home world and friends, including Q*dina (a female version of Q*bert), have been kidnapped by Coily the snake. You must brave four unique dimensions with six levels each in order to find four pieces of the Magic Disc. Once again, you must hop on cubes to change them to a target color (or colors), but this time the playfield varies in shape from level to level, and there are lots of new features, including bonus rounds, secret levels, and special cubes that score bonus points or transport you to new locations. Also, power-ups, such as keys, smart bombs, speed boosters, torches, and other useful items, will help you defeat enemies and complete levels.

The variety of worlds in the Adventure mode is excellent. You'll travel through atmospheric lands both near and far that evoke a variety of moods and locations. You'll hop on gothic castles, towering skyscrapers, foreign villas, and other cool structures and environments. Whimsical, art deco-style levels will dazzle your eyes with blinding color. There are all kinds of crazy designs and wacky cube arrangements; Q*bert fans tired of hopping on the same old pyramid will welcome the variety and constant change of pace.

In the Head-To-Head competition, one player controls Q*bert while the other assumes the role of Q*dirk. Q*bert's cubes are orange, Q*dirk's are blue, and green cubes are shared. Players must complete their own color cubes while trying to grab as many green cubes as possible. Many of the Head-To-Head cubes can be used to foil the other player. For example: A Coily Spawn Cube will produce a snake in your opponent's playing field; a Camera cube reduces the visibility of the opposite player's cubes; and a Trigger cube sets off an explosion for tagged cubes in your opponent's playing field.

There are numerous strategies involved in this mode. Should you try to be the first one to finish a level, or should you go strictly for points? How much should you concentrate on foiling your opponent's game plan? What about the bonus cubes?

There are only two complaints I have with PlayStation Q*bert, but they are minor. The controls are solid, but they are not perfect. Occasionally when you will die, you will swear that it is the gamepad's fault and not your own.



Also, in the Head-to-Head mode, the penalty for dying is not strong enough. You are given infinite lives, and you get to return to the action immediately after you hop off of the playfield or get squashed by an enemy. I don't mind the infinite lives within the context of this mode, but a few seconds should elapse before you are permitted to continue play.

Brett Weiss - A full-time freelance writer, Brett Weiss is the author of the Classic Home Video Games series, The 100 Greatest Console Video Games: 1977-1987, Encyclopedia of KISS, and various other books, including the forthcoming 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, Fangoria, and AntiqueWeek, among others.

45 Years of Arcade Gaming: The 1970s

By Adam Pratt

This is an update & re-write of an original article that was published on ArcadeHeroes.com on June 27th, 2012 entitled '40 Years Of Arcade Games'. You can still read that post here: http://arcadeheroes.com/2012/06/27/40-years-of-arcade-games/

Video games as a form of entertainment have not been around quite as long as other options out there – books, sports, radio, movies, etc. - but they established themselves as a viable way to pass the time whether it be for business or leisure. Video games had existed since 50s but they wouldn't become the force they are known for now until 1972. That is when the enterprising partnership of Ted Dabney and Nolan Bushnell formed Atari Inc., released PONG and gave us a history worth looking into, which we will do today as I take you through forty-five years of coin operated gaming goodness.

Now, I am aware of developments like Galaxy Game and Dabney/Bushnell's Computer Space but we'll stick to using Pong as the beginning of our story. This is because that title is what made games palpable to the public to enjoy – it was simple but addictively entertaining. It also could not really be enjoyed alone, meaning you had to play with a friend or even a stranger. This was a key element for many early video games, driving the social aspect of gaming into the cultural mind about games.

Of course, everybody has heard of Pong since it launched the industry and made it what it is today. Several other big names in the business would copy the concept to cash in while the iron was hot – Sega, Taito, Midway and several others that no one remembers. But it was not the only title worth mentioning in our walk along the road of history.

In the year following '72, Atari quickly got to work on other concepts to find that next hit which could help set them apart from Pong. Space Race was their first non-tennis related game but it failed to ignite imaginations; what it would take is a little bit of innovation mingled with controversy. That happened with Gotcha, the first maze video game where it was essentially virtual tag. Atari released two version of it – a B&W as well as a true color TV version; the first video game to do so. This was 1973 so color TVs were still a bit pricey but arcades allowed customers to experience cutting edge technology for far less than they would have to pay for it.

The game itself didn't cause anyone to clutch their pearls but the odd pink "boob" controllers certainly did. These were large round rubber overlays that completely covered the joystick and they looked like a pair of... boobs. It was done as a joke by the engineers at Atari but it didn't go over too well in public so they had to revamp it without the covers. Live and learn!

Steering clear of controversy in subsequent releases, Atari continued pushing the envelope of innovation, releasing the first simultaneous 4 player game, Pong Doubles. Like Pong before it, this would quickly be copied by competitors too.

1974 is where we finally start seeing some movement away from Pong-Mania; in part because the market was saturated from the game so you needed something else to stand out but also where technology was beginning to allow for a little better detail in the games. The standout game this year was TANK, which carried the name Kee Games on it. This was really Atari but they had to form this "other" company to get around the limitations of archaic distribution networks at the time. This game would be the second lightning strike for Atari, allowing them to not only keep the doors open but to expand into the 800 lb. gorilla they would soon become.

Atari also released two other innovative titles this year – Gran Trak 10, the first racing video game and QWAK!, their first light-gun game that would be copied pretty closely 10 years later by a game you might have heard of called Duck Hunt.

Up until now, I've just been talking Atari and that's because for the most part, they were the only ones really experimenting with the video game format and trying to create something unique. They were not completely alone however – one company no one remembers by the name of PMC Electronics would launch One On One this year, a basketball game that was a variation of Pong but played as close to a basketball game as you could hope for using the tech of the time. If even used large ball-top joysticks, something that would later become a standard symbol of arcade gaming.

While PMC was giving basketball a try, a company by the name of Ramtek developed

a title that could be seen as a predecessor to Breakout called Clean Sweep. You move your paddle at the bottom of the screen and use it to hit the ball; said ball would touch dots on the screen which would disappear. It wasn't quite the same but it was close and thus, noteworthy.

Then we get to 1975 – the year where the hardware side of arcade games would pick up some real steam and show how you could create simulated experiences in video games. We had Allied Leisure Industries create the first skiing game, simply titled Ski, which used swivel foot controllers; Atari would release the first sit-down driving game in a groovy fiberglass cabinet by the name of Hi-Way; Sega created a light-gun shooting gallery game called Bullet Mark (which used realistic looking Tommy guns); and Chicago Coin launched Super Flipper – not the first video pinball game created as Atari had already done that, but Super Flipper came in a real pinball cabinet, with a large monitor serving as the playfield.

We also received the first large multi-player experience this year with Atari's Indy 800 – an 8-player simultaneous racing game sporting realistic driving controls and a color screen. One of these beasts cost $6495 in '75 dollars – something close to $20,000 today. But if you came across one, all you and seven other players had to pay was a quarter. Pretty nice bargain if you ask me!

While everyone could see and interact with these features that were on the outside, one development would happen on the inside of games this year that would change everything – the use of the CPU. One innovation of games like Pong was using the decentralized processing of logic chips to create an interactive game on the TV. It worked but it lacked real power. The CPU meant you could offer more detail, more animations, new effects and so on. The first game to bring this to the market was Gun Fight by Midway. Midway re-purposed Taito's Western Gun for a North American release, throwing in an Intel 8080 processor to help it stand out. The benefits of such computational power were obvious and soon afterwards, everyone was using CPUs in their games.

Before we leave this wonderful time behind, we should also showcase the attempt by arcade companies to see what boundaries could be pushed in regards to licensing. Steven Spielberg had launched JAWS that year to theaters and everyone had JAWS fever so naturally, the video game business wanted to get some of that sweet action too. Atari was the most blatant in their creation of Shark JAWS, the word 'Shark' being about 40 font sizes smaller than JAWS while other companies took a little safer approach – US Billiards developed Shark (where you were the Shark trying to eat divers) and Project Support Engineering blessed the world with Maneater, which is notable for their fiberglass cabinet designed to look just like a great white shark. Good times.

For me, 1976 is the year when the fabled "Golden Age" of video games got its start. That's because some truly interesting and influential games hit the market this year, without them you certainly wouldn't have arrived at Space Invaders a couple of years later.

The biggest name from this year was Atari's Breakout, the block breaking Pong variation that showed the world that they still had what it could to be the world's #1 game company. The fascinating story behind this game, involving Steve Wozniak and Steve Jobs has been told in plenty of places already so I'll save the space; regardless, the public didn't know any of those details at the time, they just had a new game to enjoy and it ended up being a solid seller for the company. Atari would also release another sit-down driving game this year by the name of Night Driver; Midway would show a game almost exactly like it at the same trade show called 280-Zzzap so it's hard to say who was 'first' with the idea. Either way, these differed from other driving games on the market thanks to the first person perspective. Prior to this, racers involved a top down view.

Speaking of Midway, they had been around for a while at this point, having been heavily involved in the creation of "EM" (electromechanical) games during the 60s. Video games were now to the point where they could re-create EM experiences but with more variety so Midway borrowed an idea from a Sega EM game called Periscope and created Sea Wolf. You goal was to blast enemy boats using your torpedoes. This was all done using a realistic looking periscope viewer.

Due to its rarity, this game is often overlooked but it was significant in that it was the first 1-on-1 fighting game around – Sega's Heavyweight Champion. This featured large, detailed sprites and unique boxing glove handles to control how you punch.

This year also saw the advent of a game genre that would play a major role in the movie TRON a few years down the road – the 'snake' or 'light-cycle' game. It isn't clear who was first with the concept but operators had several options to choose from by '77: Ramtek (Barrier), Meadows (Bigfoot Bonkers), and Gremlin (Blockade) started it off while a year later Midway created Checkmate, Atari did Dominos, Sega released Crash Course, and Gremlin did another called Comotion. Midway's title is the most interesting and advanced; While Ramtek's Barrier had 4 player play, Checkmate's single player allowed you to play against 3 CPU opponents. It was also the first game to have instant replay, it had music, and it was the first game I have seen to use commentary similar to what you would find in first person shooters many years later, such as "Player 2 meets his maker" or "Player 1 pronounced dead" when they die.

'76 was also an era of experimentation in game music. On one hand you had Sega's Fonz – the first video game to feature a celebrity (before he jumped the shark) – which would use an 8-track tape deck to produce the music and on the other, Midway's Amazing Maze went all digital. Granted, if you ever hear the Amazing Maze

in person, the sequence of high tones makes you long for the mute button. Still, you had to start somewhere.

Controversy would also hit the industry again thanks to American developer Exidy and their release of Death Race. The "realistic" violence of running over people/gremlins (which looked like stick figures) was outrageous enough at the time that the game was lambasted on national news programs at the time. If only they had seen what games of the 2010's would be like.

1977 is primarily remembered for a movie that would change everything in entertainment culture, video games included. That would be George Lucas' Star Wars. While the moon landings had ceased by this point, America was still hungry for space stories and Star Wars was the match that got things going.

That said, game development takes time so it wouldn't be until 1978 and '79 that space fever would take complete hold on the market but you did have a couple of titles that would enjoy the benefits of the Star Wars setup. First was Atari's Starship 1, a first-person space shooting game that pioneered the graphics technique of scaling sprites (it also played a little loose with licensing, obviously pulling various influences from Star Trek). Then there was a newcomer to the scene that would start out of the game with the best selling title of the year, Space Wars by Vectorbeam. The Space War concept had existed on mainframe computers in the 1960s but now the general public got their chance to see what all the fuss was about and they loved it. This was also helped by the development of the vector monitor, Space Wars being the first arcade title to enjoy the high resolution, contrast and visual effects that such a display could provide. Space Wars reportedly sold above 33,000 units, a number that is very good now matter which year we're talking about.

Other firsts this year includes the first title to use two monitors for the same game (Subs, Atari); the first game to use the 8-way scrolling technique (Super Bug, Atari); and the first game to use a dedicated video chip that also used display memory (M-79, Ramtek). While I believe that some other games used real tachometers on their control panels prior to this year, Atari's Drag Race is one of the few games to feature such a device and it helped you know when to shift.

The showcase game of 1978 tapped into that space fever I mentioned so let's get to it first – Taito's Space Invaders. Taito had been developing many video games since they cloned Pong back in 1973 but nothing would put them on the map quite like Space Invaders. The character animations, the sound, the wave based gameplay instead of racing against the clock all served to make this game a true Quarter Cruncher.

Space Invaders did suck up most of the 'attention in the room' this year but that didn't stop companies from producing content. Atari kept things going with Avalanche, a reverse Breakout that would directly influence the popular Kaboom! On the Atari 2600; there was Skydiver with it's pinball style marquee and ripcord handle controllers; Fire Truck, the first two player co-op game and Atari Football, the sports title that gave the public the "Trak-ball" style controller. Sega was a little quiet this year, mostly releasing rehashed concepts except for the likes of Frogs which let you hop around a pond catching flies for points. Midway had plenty to be happy about since they licensed Space Invaders but they still produced some of their in-house games like Space Walk, Blue shark, Clowns and a few others.

It has been quite a journey so far but we are at the end of one decade – 1979. This year saw more games that would become true classics as they graced arcade venues around the world, several of which could would build onto the aforementioned 'Space Fever' that was sweeping the country. Atari had their second vector game Asteroids to thank for amazing sales while a newcomer by the name of Namco would burst onto the scene with Galaxian. Exidy would leave a mark thanks to the development of their 'cockpit' style game cabinet, which helped the user feel like they were piloting a space or aircraft. They launched this with the very Star Wars-like game Star Fire (replete with TIE Fighter and Star Destroyer style enemies).

Rounding out some of the non-space games this year was Exidy's Fire One (their take on Midway's Sea Wolf II), Sega's maze driving game where you collect dots (ala Pac-Man before Pac-Man) Head-On, Taito's unique Breakout variation Field Goal, Midway's vertical scrolling shoot 'em up Phantom II and another 1v1 fighting game by Cinematronics/Vectorbeam called Warrior. Atari would also try and build on the success they found with trak-balls and Football with Atari Basketball and Atari Baseball.

Adam Pratt - Adam has been playing video games since his parents brought home a Texas Instruments 99/4A computer in the mid-80s. That eventually led to a decent collection of Atari, PC, Nintendo and Sega games for his home game room. Professionally he has been heavily involved in the coin-operated amusement industry since his teenage years. That started by working at a large arcade & laser tag arena in West Valley City, UT where he also purchased his first arcade machines, 1942 and Zaxxon. This eventually led to him opening his own arcade business in 2008, just a couple of blocks away from where he had worked as a teenager. The Game Grid Arcade has operated at the Valley Fair Mall since, moving locations a few times within the mall and expanding from 25 games to 60.

Adam has also been writing for the Arcade Heroes blog since 2007; he took ownership of the site in 2010. In addition to blogging, he has contributed articles and game reviews to Hardcore Gamer Magazine and Replay Magazine, culminating that work with the release of his first book in 2013, The Arcade Experience: A Look Into Modern Arcade Games And Why They Still Matter. In 2011 he began selling arcade machines for BMI Gaming, an online distribution company, leaving that in 2016 to pursue other opportunities with his arcade including writing and support for PrimeTime Amusements and LightedSpeakerPinballPanels.com. He lives in the Greater Salt Lake City area with his wife and three kids, whom he spends most of his little free time with as he can.

THE GAME SCHOLAR

Conversations with Consoles

THE GAME SCHOLAR

By Leonard Herman

In today's gaming climate a microphone is practically just as standard as a controller, but it's usually used for conversations between players. But one goal has always been for verbal interaction, where players could actually speak their commands into voice controller, which would eliminate the need for a hand controller once and for all.

The idea of parsing dialog, breaking down the spoken word, reflects back to an earlier time of text adventures when the computer parsed text that was entered through a keyboard. But as the parsers became more sophisticated, players hoped that one day they could toss away their keyboards and speak their commands directly into the game.

But voice recognition isn't new. It has a heritage going back 35 years. And while games that used voice recognition have always been unique for that sole reason, they

have rarely been successful.

The first console to use voice recognition technology was Milton Bradley's MBX Expansion System for the Texas Instrument TI-99/4A Home Computer, which was released in the fall of 1983. No, that wasn't an error, calling it a console and a computer peripheral in the same sentence. Originally, it was supposed to be a console, but after Coleco released the ColecoVision in 1982, Milton Bradley decided that there wasn't any room in the marketplace for more than two gaming consoles. So they redesigned their system to work with the TI-99/4A.

Voice Recognition was actually only one feature of the Milton Bradley Expansion module, and it wasn't its major feature. In fact, not all games that were designed for the system even utilized it, and it was optional on those that did. The feature could be disabled and the game could be played using a joystick controller that was packaged with the system. However, if it was used, a few steps had to be taken before the game could be played. Unlike most of the voice recognition systems that would follow, the MBX didn't parse the player's speech for keywords. Instead, the system initially displayed words on the screen and prompted the player to say those words clearly into the microphone.

Each of those words represented an action in the game. For example, saying "down" caused the game to respond the same way as if a player pressed the joystick controller down. And the system didn't really care what word was said. If a player initially said "Yellow" when he was prompted to say "Down", then the word "Yellow" would cause the same reaction as if the joystick was pressed down.

Milton Bradley first showed off the MBX at the 1983 Winter CES and Atari liked it so much that they partnered with Milton Bradley to create a voice module for the Atari 2600 and 5200. A prototype was built that worked the same as Milton Bradley's unit, where players had to say keywords into a microphone. It was shown at Atari's booth

at the 1983 Summer CES and then was never seen again.

Shortly following the Summer CES, Atari dissolved its partnership with Milton Bradley and the "Voice Commander" joined Atari's infamous list of vaporware. Atari never publicly declared why they cancelled the device but people who purchased the Milton Bradley MBX when it went on sale that fall believed they knew why. To put it simply, the voice recognition feature simply didn't enhance the game. It was much more intuitive to simply press on a joystick then to say a single command out loud.

The MBX was not on the market for too long. Milton Bradley claimed that it was a victim of the videogame crash of 1983, which was probably partially true since Texas Instrument discontinued the TI-99/4A in March, 1984. It would have been difficult to continue selling a peripheral for a product that was no longer being produced. But one has to wonder that if the unit sold well, why Milton Bradley didn't attempt to make it available for other computers that were available at the time.

Voice recognition took a break for a few years. Then in 1990, Konami released an accessory for the NES that was a combination voice controller/light gun. Although it had been specifically designed to support one game, Laser Invasion, it was supposed to work with any game that used the NES Zapper. The LaserScope wrapped around the player's head and covered his ears like earmuffs. A slim microphone extended out in front of the player's mouth. Another extension came out over the player's forehead and rested in front of his eye. Attached to this eyepiece was a plastic shield with a set of crosshairs painted on. By saying the word "fire" into the microphone, the unit would shoot light at the TV screen, just as if the player pulled the trigger on a light gun. Unfortunately, the device only recognized the one command, and sometimes it confused background noise caused with the actual command.

The next voice module appeared in Japan

in December, 1998. It was packaged with Nintendo's Pikachū Genki dechū. The player spoke into the required N64 Voice Recognition Unit (VRU) through an attached microphone, which parsed the sound for key phrases that then caused Pikachu to react a certain way. The VRU was compatible with only one other game; a train simulation called Densha de Go! 64, which Nintendo of Japan released in 1999. However, in this game the use of the VRU was optional. Pikachū Genki dechū was released in North America two years later as Hey You, Pikachu!, which was the only game in North America that used the VRU.

Around this time, Sega released a similar game in which the player talked to the onscreen characters in order to progress the game. And like Hey You, Pikachu!, Seaman was packaged with a microphone peripheral, in this case, the Dreamcast Microphone, which loosely resembled a Sega Visual Memory Unit (VMU). Seaman was the only game released in North America that required the Dreamcast Microphone. Mr. Driller, which had been released for the Dreamcast a month earlier, allowed players to speak softly into the microphone to cause Mr. Driller to drill, but it was optional. A third game that used the Dreamcast Microphone in North America was Alien Front Online, which came out a year later. However the microphone was only used so online players could communicate with one another, which became the primary purpose for peripheral microphones that followed.

Since Milton Bradley's voice module was part of a larger expansion module, and Atari's Voice Commander had never been produced, an actual voice controller had never been released. At least not until 2000 when Taito released its Speech Recognition Controller for the Japanese PS2. The Speech Recognition Controller consisted of a triangular device that a headset plugged into, which itself plugged into one of the PS2's USB ports. The controller was packaged with a soccer game, Greatest Striker, where gamers could tell the system to navigate through menus. Once the game began, verbal commands such as "pass" or "shoot" could be used to make the players on the field perform. Over 40 commands were built into the system, and players didn't have to initially speak the words into it as they had with the Milton Bradley unit. A second game that used the controller, a Mahjong simulation called Mahjong Declaration, was released at the end of the year, and no more games followed. Apparently, Japanese gamers found the voice commands to be a hindrance as did their American counterparts 17 years earlier.

The failure of Taito's Speech Recognition Controller marked the end of voice controllers and voice modules for videogame consoles for some time. Voice recognition, however, lived on. In 2001, Seaman was released for the Japanese PS2, and was packaged with its own controller that featured a built-in microphone. But a controller with a microphone was nothing new. Nintendo had done that back in 1983 with one of the Famicom controllers so players' voices could be heard through the television speaker. And a separate unit to parse speech was no longer necessary as the game software itself had the capability to do it.

That same year even the regular controller was deemed unnecessary when Konami released Operator's Side for the PS2 in Japan (and a year later in North America where it was called Lifeline). This was the first game that operated totally by voice commands, and didn't use a controller at all. The premise of the game had the player trapped in the control center of a Space Station, while monsters ran havoc outside the room. The only person who the player had contact with was a waitress named Rio and he had to verbally tell her what to do in order for them both to survive.

Unfortunately, the game didn't play as promised. Konami contended that Rio could understand approximately 500 commands, but in some cases she failed to even respond to commands that she recognized. And the dialog wasn't in natural Japanese (or English for that matter). In most cases they were simple commands such as "open door", verbal hold-outs from the text adventure days. A reviewer for the website gamezone.com wrote "It's a cool concept, and the technology's there, but it would take ten years to develop a game that had true voice activation."

Actually it took 13 years. In June 2017, a company called Human Interact introduced at E3 a new VR game for the Oculus Rift. Starship Commander used new complex voice-recognition technology from Microsoft where the player made his way through the game by talking to the characters with natural dialogue. The dialogue was sent to the Cloud where the speech got parsed using a sophisticated algorithm, and if the dialogue makes any sense then an appropriate response was returned.

If this technology performs as promised, then the preferred controller may become the microphone, and conversations with consoles will be the norm.

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. He has also contributed articles to several videogame-related books, including Supercade, The Video Game Explosion and The Encyclopedia of Video Games. Mr. Herman has also written the book ABC To the VCS (A Directory of Software for the Atari 2600), a compendium of game summaries. He has also written and designed user's manuals for the following Atari VCS games: Cracked, Save the Whales, Pick-Up, Rush Hour, Looping, The Entity and Lasercade, as well as the user's guide to Ralph Baer's Pinball! for the Odyssey2. In 1994, he founded Rolenta Press, a publisher of videogame books, whose catalogue included Videogames: In the Beginning, by Ralph H. Baer, the inventor of the videogame console, and Confessions of the Game Doctor by Bill Kunkel, the world's first videogame journalist. Two Rolenta Press books were included in a list of the top ten videogame books of all time by Game Informer magazine in 2008. Mr. Herman has served as an advisor for Videotopia, Classic Gaming Expo and the National Videogame Museum. He has appeared in several episodes of G4's Icons and in the documentary, The King of Arcades. In 2003, Mr. Herman received a Classic Gaming Expo Achievement Award in recognition for his accomplishments in documenting game history.

Hyperkin RETRON HD

720P HDMI NES WITH COOL RETRO STYLING AND 1 CONTROLLER

By Marc Andrews

Hyperkin's Retron HD is cool no doubt about it. As the owner of a Hyperkin Retron 5 (plays tons of different consoles through downloading the Roms from the cartridge slots and has its own interface for loading games, etc, I'm thrilled that they made a unit like this just for playing Nintendo. This unit is built fantastic and is exactly what I wanted to put into my bedroom so I can get some Nintendo on instead of watching too much Netflix.

Let's start out with the packaging, after getting mine in from DKOldies I opened it up to find it was well done without a doubt on the box, the unit, the accessories everything. It comes with the main unit, a fantastic controller, one 3ft HD cable and a 6 ft micro USB charge cable. If you want to hook it up old school with normal av (yellow/red/white) type plugs, you can still do that but then why would you be buying this. Over the last ten years companies have been coming out with what I would consider "NES Knockoffs", usually of very cheap manufacturing with fall apart level circuit boards and flimsy plastic. Both this unit and one of the others on the market that have come out this summer/fall got away from that (we will cover the Retro-Bit unit in a separate article on the next page.)

Because of being an old-school geek I chose the Hyperkin unit styled in Retro NES Grey so it would look the part of the old Nintendo. It also comes in a cool red and black styled edition that is a little bit easier to get ahold of and technically exactly the same just with the color change. The "Cadet" premium controller that comes with it is better built than the originals from what I can tell. While it only comes with one controller, the additionals are only $12.99 through most outlets.

I tried about a half dozen games in it and the only one I had any trouble with was my Tengen Gauntlet game which I believe was an issue with not being clean, but without a separate NES to hook it up to I couldn't tell. Super Mario 3, Rolling Thunder (also a Tengen), Sky Shark and Times of Lore. I was amazed that going to 16:9 mode from 4:3 mode didn't really stretch the screen to any point of not looking right. I actually preferred the 16:9 mode on all of the games, which is strange because of them being designed for original tube 4:3 TVs.

Anyways, back to the Hyperkin Retron HD in general. At $39.95 most common pricing online I think it's well worth it, and while you are at it get yourself an extra Cadet controller. Now if only someone could figure out a way to make those old school light guns work with modern TVs so I can get my Duck Hunt on I would be thrilled!

Retro-Bit RES+

720P HDMI NES PLAYING WITH 2 WIRED CLASSIC PRO CONTROLLERS!

By Brad Feingold

Let me start this review by saying I forgot how much I really hated the Teenage Mutant Turtles game for the Nintendo until I started to review this product. Also, I would like to say how much I forgot how much I hated Super Mario 3. Now before we start to get letters, let me explain. I loved the game very much, it's just that for some reason it is the only Mario game that I couldn't finish on the NES. It's a bitter hate. That being said, here is the review....

So a few years back, I did the stupid thing of selling my NES. The wife has kept reminding me of how much of an idiot I was for doing that. But I digress. And I tried extremely hard to get one of the Classic NES systems. I should have learned from previous system purchase experiences, you either pre order it, or get your butt in line to wait until midnight. Disclaimer, I have had my share of campouts.

I was very excited to review a Nintendo clone to try to get back to my old roots. The Retro-Bit +, is another addition to the lineup of clones that has been sold ever since the patent window was opened for outside companies. And this is a great addition to the list. But what is it that makes it different from the other systems? Let's start with the compatibility.

Similar to other systems, the Retro-Bit + has your standard AV ports for left/right audio and the regular yellow video cable. Man I missed those days. But in addition to this output, there is now a 720P HDMII® output. And this is a great way to project the classics. Now they do say that the graphics are crisp 720p resolution. But I guess when it has been so long since I have played the games, I guess I really can't tell. However, the original games were always played on a 4:3 screen which really brings back memories. But when you decide to play it on a 65" tv, it seems like it takes forever to get from one side of the screen to another. But in regards to the graphical difference, you can really tell the difference if you have the two put side by side.

Now I do remember the original annoying glitches of the NES games, such as Teenage Mutant Ninja Turtles, where you are fighting and your turtle kind of glitches out. That was really annoying, and yet a relief to see on a bigger tv because that is one of the many things that you can remember from those old games.

Inserting the cartridges into the system has never been easier. One reason I had to get rid of my NES was I was told that I had to pay $45 for a part and installation of a new chip to prevent me from performing CPR on the game and system. Yes I could have done it myself, but quick information bit, then I take things apart, I always put it back together and there are parts still out when I am done. Those of you who had a NES will remember these struggles. Now there is a top loading port to easily insert the games and with the games that I had laying in the basement for over 15 years, came up like I just bought them. Oh how I was so relieved to play Contra again. By the way, Up up down down left right left right b a b a start. On with the review.

The controllers that come with the Retro-Bit + are a breath of fresh air considering that I have played the Playstation 4 for a couple of years straight. Several times I get the buttons confused and hit the wrong thing. But the memories of A and B, where it really all started, not counting the Atari, made things a lot easier. The size of the controller is pretty much the same as the NES controller. But the A and B Button was a little more extended than I remember. But that isn't even a gripe of the review. What I was more concerned about was the response time of the controller. To test this, I played Mike Tyson's Punchout. At the start, the controls were a little on the tight side but after a few games, it seemed to get back to normal. I dare not see what happens if I play Track and Field. But it was a successful test and I beat Mike Tyson again. P.S. 0078 373 5963. Ok I am done with the codes.

Bottom line. IF you are a true NES officinado and collect everything NES, you might know differences in the games and the controls. However if you are just a happy gamer such as me, this is a great product to have so you can still get the actual classic cartridges. Yes, you can get those NES and SNES emulators that have all those games and are impossible to find in stores, but If there is just one or two games that you want to relive the past with, at a really low price, this is perfect.

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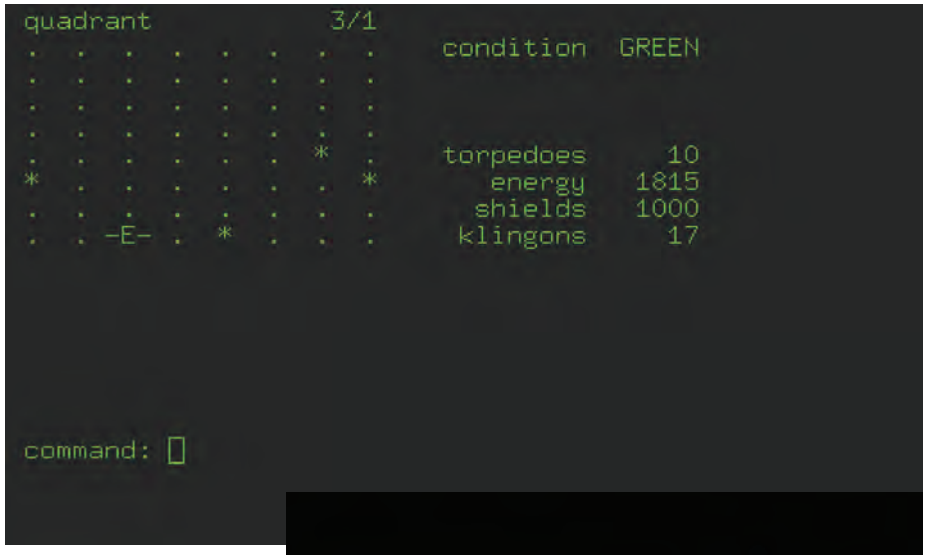
Text Adventures and Early Gaming

STAR TREK, COLOSSAL CAVE ADVENTURE, THE HOBBIT AND ZORK

By Kristopher Purzycki

When we think of classic games, we might typically think as far back as to those days when Nintendo and Sega were battling for supremacy over the market. Many still look back further to when similar lines were being drawn in the sand between Atari, Coleco, and Intellivision. We might also think about those incredible arcades, packed wall to wall with those gorgeous cabinets, pulsing and buzzing together as an electronic orchestra only a player could love. The enormous success of the home systems and arcades in the 1970s and 1980s, however, overshadowed a shrinking game culture that held fast to its roots in personal computing.



Mike Mayfield's 1971 text based Star Trek

This community of amateur and professional programmers, artists, writers, and designers were using computers to create fascinating works of their own with little to no interest in creating a lucrative game. Instead, these hobbyists were creating digital versions of their favorite fantasy and science-fiction worlds on the computer to share with one another. This community building aspect of early game developing seems like a harsh contrast to the legal battles of Atari and others. This comparison is even more stark when we think about how many of these developers were freely offering their code for others to use to create their own electronic visions.

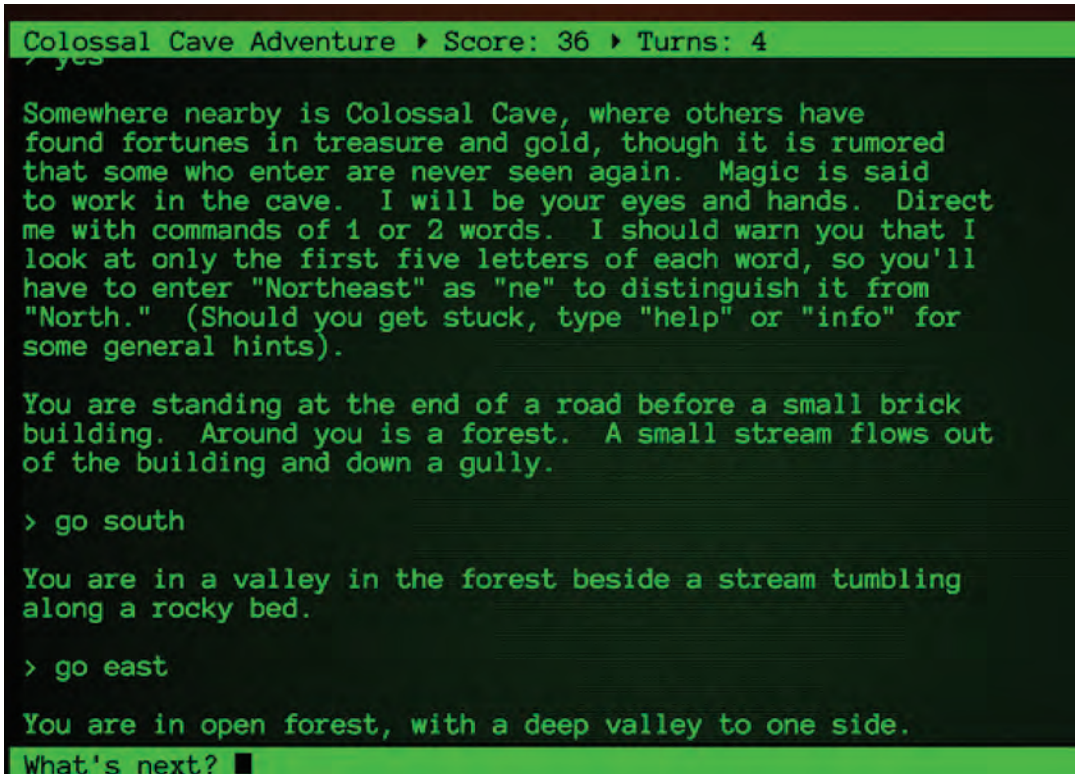
Despite graphics technology becoming more sophisticated and computers decreasing in price, some of these games embraced text-based interfaces. Instead of sprites and vectors, some of these games relied on ASCII graphics to represent spaces. One of the first of these was Mike Mayfield's 1971 text-based Star Trek. B ased on the television series that ended its mission in two years prior, this game featured simple star charts. It's hard to imagine this simple game, which was programmed in the BASIC programming language, was as successful as it was. This simplicity, however, was precisely what contributed to its widespread popularity. As a programming language, BASIC was simple yet featured many of the structures found in more robust languages. This accessibility fueled the publication of numerous BASIC programming "how-to" books - many aimed at a younger audience - that included instructions on how to create one's own version of the Star Trek game . David Ahl and Mary Cole, for example, published Super Star Trek, a version that was given Star Trek producer Paramount's permission to use their property's name. Although simple, its influence would be tremendous, inspiring Doug Neubauer to develop a graphics-oriented version - S tar Raiders - for his employer Atari.

Several years after the release of Star Trek, accomplished cave explorer Will Crowther would publish Colossal Cave Adventure , one of the first works of interactive fiction. This genre of text adventure is recognized by it's more linear, narrative form. Using simple phrases in plain (yet often clumsy) English, players interact with the game world. In Adventure, players are free to roam and lose themselves in the underground catacombs. Crowther created A dventure as a way to not only capture the awe of exploring Mammoth Cave, but also his love of D ungeons and Dragons . Additionally, the text-based adventure was a gift to his daughters during the aftermath of a recent divorce. Working with Crowther, Don Woods would expand A dventure in 1977, adding more of the fantasy elements that made the game so captivating. The influence of

Crowther and Woods' project cannot be overstated. Countless developers would claim Adventure influenced

their work, including Ken and Roberta Williams, founders of Sierra Online.

The 1980's would witness the development of numerous outstanding text adventures including Beam Software's The Hobbit, which featured the groundbreaking addition of non-player characters that behaved independently of the player. Arguably, no developer would have a greater presence in the world of interactive fiction Infocom. A prolific publisher of text adventures, Infocom was formed after founders Marc Blanc and Dave Lebling played C olossal Cave Adventure in the late 1970s. While students at MIT, they set out to expand on Crowther's game , which was bouncing around academic mainframes during the late 1970s. Named for the term used to describe uncompleted programs, Zork was later renamed Dungeon until TSR, publisher of Dungeons & Dragons, threatened to sue. Under its original title, Zork I was commercially released in 1980 to great success. Players were not only captivated by the expansive world, they also loved the sophisticated way the game used language. The sarcastic humor of the game ("It seems that the brick has other properties than weight, namely the ability to blow you to smithereens") and the command structures that flowed much more like conventional English made for a fun and linguistically rich experience. Infocom would go on to release numerous successful games including P lanetfall (1983), Hitchhikers Guide to the Galaxy (1984), and A Mind Forever Voyaging (1985). Zork would prove to be Infocom's legacy, however, and continues to be a favorite of text-adventurers.



Will Crowther's Colossal Cave Adventure

The history of these works is long and legendary. While none of them would transform popular culture to the degree of Pac-Man or Donkey Kong , interactive fictions and text adventures would significantly influence how we relate to computers. With more and more personal computers finding their way into homes, these simple games would not only provide an easy access to wondrous worlds, they would also foster a new generation of computer programmers and game developers. As the tools to create text adventures were available to anyone with access to a computer, they would become tremendously popular as ways to practice coding. Alongside their emergence, more graphically-rich games would also be released. Richard Garriott's Ultima series would help promote a new era of these titles that took advantage of the computer's increasing ability to display colorful graphics. Understandably, text adventures took a backseat to these more alluring games.

Growing interest in preserving software, critical attention by academics, and no small measure of nostalgia are rekindling an interest in these highly influential works. For many of us, text adventures like Zork were among the first interactions with personal computers. The lack of graphics allowed players' imaginations to conjure up landscapes in a resolution higher than anything a green phosphor monitor could render. Thanks to efforts by researchers, collectors, and players, these games are being reclaimed and distributed online and on mobile devices. In an age where AAA is king, and intellectual property litigation threatens independent ingenuity, perhaps Zork and Adventure will inspire yet another generation of passionate game developers.

Kristopher Purzycki is a doctoral student at the University of Wisconsin-Milwaukee where he studies computer games and digital media. His current research focuses on the ways we develop a sense of place within computer games. Although primarily a PC player, he has grown up with consoles since received Video Pinball for Christmas. Since then, he has outlived an Atari 2600, two Sega Genesis, two Playstations, and is currently waiting for his kids' Xbox to quit so he can pony up for a Playstation 4. For them of course

Atari 2600 Pricer

PRESENTED BY PUREGAMING.ORG'S RETRO GAME COLLECTOR APPLICATION

All pricing below is based on Pure Gaming's unique algorithm that scours online resoures looking for what actual product sold for in many different locations. It should be taken only as a guide and not a final value of any game. The real value is whatever someone is willing to sell it for, and you are willing to buy it for. Every issue of Old School Gamer Magazine will publish pricing for a different console or gaming era. We recommend you look into the collecting app offered by PureGaming.Org.

Game	Loose	Boxed
3-D Tic-Tac-Toe	$3	$10
3-D Tic-Tac-Toe (S)	$2	$10
32 in 1	$11	-
A game of Concentration	$34	-
Acid Drop	$12	-
Action Force	$20	-
Adventure	$10	$56
Adventure (Sears)	$10	$56
Adventures of Tron	$4	$12
Adventures on GX-12	$25	-
Air Raid	-	-
Air Raiders	$7	$12
Air-Sea Battle	$4	$9
Airlock	$5	$23
Alien	$18	$33
Alien's Return	$7	$31
Alpha Beamw/Ernie	$5	$9
Amidar	$1	$15
Arcade Golf	$12	$22
Arcade Pinball	$5	$31
Armor Ambush	$6	$8
Artillery Duel	$17	$43
Artillery Duel - Chuck Norris Superkicks	$13	$88
Artillery Duel - Ghost Manor	$62	-
Artillery Duel - Spike's Peak	$6	$19
Assault	$18	$198
Asterix	$57	-
Asteroids	$5	$12
Asteroids (Sears)	$6	$13
Astro Attack	$5	-
Astroblast	$3	$12
Astroblast (Telegames)	$2	$11
Atari Video Cube	$20	$144

Game	Loose	Boxed
Atlantis	$3	$7
Atlantis II	$575	-
Bachelor Party	$59	$276
Bachelor Party (M)	$59	$274
Bachelorette Party	$90	-
Backgammon	$5	$27
Backgammon (Sears)	$6	$29
Bank Heist	$11	$28
Barnstorming	$5	$15
Baseball	$8	-
Baseball (M)	$7	-
Basic Math	$10	$120
Basic Programming	$15	-
Basketball	$1	$9
Basketball (Sears)	$2	$9
Battlezone	$6	-
Beamrider	$40	$58
Beany Bopper	$9	$29
Beat' Em & Eat 'Em	$33	$165
Beat' Em & Eat 'Em (M)	$33	$165
Berenstain Bears - Kid Vid	$230	-
Bermuda Triangle	$1	$19
Berzerk	$6	$12
Berzerk (Sears)	$5	$10
Big Bird's Egg Catch	$2	$12
Billard	$3	-
Birthday Mania	$302	-
Black Hole	$4	-
Blackjack	$4	$9
Blackjack (S)	$6	$11
Blue Print	$6	$18
BMX Airmaster	$3	$19
Bobby Is Going Home	$8	$23
Bogey Blaster	$18	-
Boing!	$85	-
Boom Bang	$8	-

Game	Loose	Boxed
Bowling	$3	$8
Bowling (S)	$4	$6
Boxing	$3	$10
Brain Games	$8	$16
Brain Games (Sears)	$6	$14
Breakaway IV	$2	$6
Breakout	$5	$6
Bridge	$9	$10
Buck Rogers - Planet of Zoom	$15	$19
Bugs	$5	$13
Bump 'n' Jump	$6	$16
Bump 'n' Jump (Telegames)	$6	$16
Bumper Bash	$139	-
BurgerTime	$9	$21
Burning Desire	$90	-
Busy Police	$24	-
Cakewalk	$470	$875
California Games	$4	$10
Cannon Man	$28	$337
Canyon Bomber	$2	-
Canyon Bomber (Sears)	$3	-
Capture	$7	$11
Carnival	$4	$9
Casino	$3	$8
Cathouse Blues	$87	$166
Centipede	$8	$13
Challenge	$14	-
Challenge of Nexar	$8	$23
Championship Soccer	$3	$6
Chase (Sears)	$6	-
Chase the Chuck Wagon	$72	$385
Checkers	$5	$30
Checkers (Sears)	$7	$28
China Syndrome	$17	$18

Game	Loose	Boxed
Chopper Command	$6	$12
Chuck Norris Super-kicks	$12	$25
Chuck Norris Super-kicks - Ghost Manor	$32	-
Chuck Norris Super-kicks - Spike's Peak	$93	-
Circus	$2	$8
Circus (Z)	$3	$7
Circus Atari	$4	$8
Coconuts	$8	$19
Code Breaker	$12	$15
Codebreaker (Sears)	$12	$14
Combat	$4	$11
Commando	$10	-
Commando Raid	$4	$11
Communist Mutants from Space	$9	$24
Condor Attack	$69	$1,431
Congo Bongo	$8	$16
Cookie Monster Munch	$8	$12
Cosmic Ark	$6	$8
Cosmic Commuter	$21	$120
Cosmic Corridor	$30	-
Cosmic Creeps	$9	$26
Cosmic Free Fire	$12	-
Cosmic Swarm	$23	$98
Cosmic Town	$23	-
Crab Control	$6	-
Crackpots	$9	$29
Crash Dive	$17	$71
Crazy Climber	$92	$441
Cross Force	$12	$22
Crossbow	$6	-
Cruise Missile	$15	-
Crypts of Chaos	$12	$44
Crystal Castles	$3	$153
Cubicolor	$1,299	-
Custer's Revenge	$72	$131
Dancing Plate	$81	$129
Dare Diver	$9	$44
Dark Cavern	$1	$6
Dark Chambers	$9	$12
Deadly Duck	$5	$21
Death Trap	$28	$133

Game	Loose	Boxed
Decathlon	$5	$16
Defender	$5	$9
Defender (Sears)	$6	$10
Defender II	$14	-
Demolition Herby	$21	$67
Demon Attack	$4	$12
Demons to Diamonds	$1	$31
Demons to Diamonds (Sears)	$2	$29
Desert Falcon	$5	$7
Dice Puzzle	$26	-
Dig Dug	$9	$13
Dishaster	$21	$190
Dodge 'em	$2	$10
Dodger Cars	$24	-
Dolphin	$6	$36
Donkey Kong	$7	$11
Donkey Kong (Coleco)	$6	$10
Donkey Kong Junior	$8	$21
Donkey Kong Junior (Coleco)	$9	$20
Double Dragon	$28	-
Double Dunk	$4	$13
Dragon Treasure	$20	-
Dragonfire	$6	$11
Dragonstomper	$10	$14
Dragster	$7	$28
E.T. The Extra-Terrestrial	$8	$27
Earth Attack	$1	$14
Earth Dies Screaming	$23	$43
Eddy Langfinger	$8	-
Eggomania	$9	$18
Eli's Ladder	$592	-
Encounter at L-5	$2	$21
Enduro	$5	$14
Entombed	$7	$28
Escape From The Mindmaster	$8	$27
Espial	$170	$840
Exocet	$29	-
Fantastic Voyage	$9	$12
Farmer Dan	$34	-
Fast Eddie	$8	$20
Fast Food	$7	$28

Game	Loose	Boxed
Fatal Run	$59	-
Fathom	$11	$54
Felix Return	$26	-
Fighter Pilot	$72	-
Final Approach	$11	$22
Fire Fighter	$4	-
Fire Fly	$2	$16
Fireball	$22	-
Fisher Price	$23	-
Fishing Derby	$5	$11
Flag Capture	$4	$18
Flash Gordon	$10	$11
Football	$4	$10
Football (Sears)	$4	$9
Forest	$18	-
Fox & Goat	$7	-
Frankenstein's Monster	$24	$47
Freeway	$5	$12
Freeway (Zellers)	$7	$14
Frogger	$9	$18
Frogger II - Three-deep	$18	$109
Frogger, The Official	$7	$19
Frogs and Flies	$4	$12
Front Line	$6	$89
Frontline (Zellers)	$7	$89
Frostbite	$15	$45
Fun with Numbers	$6	$27
G.I. Joe - Cobra Strike	$3	$22
Galactic	$11	-
Galaxian	$5	$7
Gamma-Attack	$114	$155
Gangster Alley	$6	$14
Gas Hog	$36	$184
Gauntlet	$35	-
Ghost Manor	$24	$428
Ghost Manor - Spike's Peak	$14	$38
Ghostbusters	$11	$17
Ghostbusters II	$3	-
Gigolo	$87	-
Glacier Patrol	$9	$219
Glib	$58	$275
Golf	$2	$12
Golf (Sears)	$3	$10

Game	Loose	Boxed
Gopher	$7	$10
Gorf	$5	$13
Grand Prix	$3	$23
Gravitar	$9	$13
Great Escape	$30	-
Gremlins	$28	$115
Ground Zero	$15	-
Guardian	$82	$384
Gunslinger	$6	-
Gyruss	$11	$89
H.E.R.O.	$52	$166
Halloween	$69	$347
Hangman	$4	$28
Harbor Escape	$28	$200
Haunted House	$5	$12
Haunted House (S)	$4	$11
Hell Driver	$20	-
Hili Ball	$7	-
Home Run	$1	$6
Human Cannonball	$1	$7
Hunt & Score	$2	$15
I Want My Mommy	$2	$164
Ice Hockey	$5	$9
Ikari Warriors	$29	-
Inca Gold	$107	-
Indy 500	$5	$15
Infiltrate	$1	$66
International Soccer	$7	$10
International Soccer (T)	$9	$10
James Bond 007	$17	$45
Jawbreaker	$20	$31
Journey Escape	$5	$14
Joust	$8	$9
Jr. Pac-Man	$10	-
Jumping Jack	$9	-
Jungle Fever	$188	-
Jungle Hunt	$6	-
Kaboom!	$4	$12
Kangaroo	$3	$7
Karate	$16	-
Karate (Froggo)	$15	-
Keystone Kapers	$8	$16
Killer Satellites	$68	-
King Arthur	$10	-
King Kong	$22	$47

Game	Loose	Boxed
Klax	$19	$89
Knight on the Town	$188	-
Kool-Aid Man	$8	$39
Krull	$9	$23
Kung Fu Superkicks	$20	-
Kung-Fu Master	$12	$32
Lady in Wading	$41	$111
Laser Blast	$3	$10
Laser Gates	$23	$110
Laser Volley	$14	-
Lilly Adventure	$7	-
Lochjaw	$864	$989
Lock 'n' Chase	$2	$12
Lock 'n' Chase (TeleGames)	$3	$12
London Blitz	$13	$45
Lost Luggage	$8	$12
M.A.D.	$4	$7
M.A.S.H.	$6	-
Magicard	$202	$2,619
Malagai	$350	-
Mangia	$71	$409
Marauder	$35	$148
Marine Wars	$28	$66
Mario Bros	$11	$32
Master Builder	$45	$75
Math	$8	$118
Math Gran Prix	$6	$17
Math Gran Prix (S)	$6	$16
Maze	$6	$12
Maze Craze	$5	$19
Maze Mania	$7	$10
MegaBoy	$131	-
Megaforce	$5	$19
Megamania	$7	$25
Memory Match	$13	-
Meteor Defense	$12	-
Midnight Magic	$2	-
Millipede	$9	$16
Miner 2049er	$16	$33
Miner 2049er 2	$86	$344
Mines of Minos	$76	$113
Miniature Golf	$5	$13
Missile Command	$1	$10
Missile Command (Sears)	$3	$9

Game	Loose	Boxed
Missile Control	$5	-
Missile War	$16	-
Mission 3000 A.D.	$12	-
Mission Survive	$68	-
Mogul Maniac	$39	-
Montezuma's Revenge	$39	$166
Moon Patrol	$6	$15
Moonsweeper	$8	$15
Motocross	$46	$218
Motocross Racer	$46	$219
Motorodeo	$13	$17
Mountain King	$8	$24
Mouse Trap	$3	-
Mouse Trap (Atari)	$2	$4
Mr. Do!	$12	$21
Mr. Do's Castle	$46	$407
Mr. Postman	$14	-
Ms. Pac-Man	$7	$13
My Golf	$13	-
Name This Game	$5	$12
Night Driver	$4	$28
Night Driver (Sears)	$4	$28
Night Stalker	$25	-
Nightmare	$45	-
No Escape!	$9	$18
Nuts	$11	-
Obelix	$48	$171
Ocean City Defender	$1	$5
Off the Wall	$14	$17
Off Your Rocker	$125	-
Oink!	$8	$12
Omega Race	$6	$79
Open Sesame	$38	-
Oscar's Trash Race	$1	$39
Othello	$4	$34
Othello (S)	$4	$33
Out of Control	$201	$797
Outer Space	$6	$10
Outlaw	$3	$7
Pac-Kong	$23	-
Pac-Man	$2	$11
Pac-Man (Sears)	$3	$12
Panda Chase	$6	$10
Parachute	$29	-
Party Mix	$103	$137

Game	Loose	Boxed
Pele's Soccer	$2	$9
Pengo	$24	$74
Pepsi Invaders	-	$3,849
Pete Rose Baseball	$12	-
Phantom Panzer II	$14	-
Phantom Tank	$16	$18
Phantom UFO	$19	-
Phantom-Panzer	$10	-
Phaser Patrol	$29	$44
Philly Flasher	$86	$165
Phoenix	$6	-
Picnic	$6	$99
Piece o' Cake	$10	-
Pigs in Space starring Miss Piggy	$11	$34
Pinball	$17	-
Piraten Schiff	$9	-
Pitfall II - Lost Caverns	$17	$34
Pitfall!	$10	$21
Planet Patrol	$3	$10
Plaque Attack	$9	$13
Poker Plus	$14	$29
Polaris	$47	$66
Pole Position	$4	$8
Pong Sports	$13	$44
Pooyan	$8	$23
Popeye	$6	$21
Porky's	$8	$9
Pressure Cooker	$12	$43
Private Eye	$13	$51
Pro Wrestling	$2	$8
Pygmy	$7	-
Pyramid War	$24	-
Q-bert (Atari)	$6	$7
Q-bert (PB)	$6	-
Q-bert's Qubes	$68	-
Quadrun	$115	$661
Quest for Quintana Roo	$28	$62
Quest For Quintana Roo (T)	$28	$62
Quick Step	$8	$50
Rabbit Transit	$34	-
Race	$1	-
Racquetball	$3	$6
Radar	$29	-
Radar Lock	$7	$12

Game	Loose	Boxed
Raft Rider	$6	$27
Raiders of the Lost Ark	$7	$10
Ram It	$29	$84
Rampage	$21	$67
Reactor	$2	$12
RealSports Baseball	$2	$7
RealSports Boxing	$7	$11
Realsports Football	$4	$6
RealSports Soccer	$1	-
RealSports Tennis	$1	-
RealSports Volleyball	$1	$11
Red Sea Crossing	$15,961	-
Rescue Terra 1	$208	$550
Revenge of the Beef-steak Tomatoes	$10	$12
Riddle of the Sphinx	$3	$11
River Patrol	$576	-
River Raid	$7	$21
River Raid II	$24	-
Road Runner	$11	-
Robin Hood	$20	$286
Robin Hood - Sir Lancelot	$37	-
Robot Fight	$21	-
Robot Tank	$6	$8
Roc 'N Rope	$13	$39
Room of Doom	$22	$99
Rubik's Cube	$23	$386
Save Our Ship	$39	$254
Save the Whales	$13	-
Scraper Caper	$9	-
Scuba Diver	$7	$109
Sea Hawk	$2	$5
Sea Hunt	$1	$6
Sea Monster	$22	-
Seaquest	$6	$23
Secret Quest	$10	$18
See Saw	$7	-
Shark Attack	$10	$12
Shootin' Gallery	$22	$55
Shuttle Orbiter	$39	$164
Sir Lancelot	$41	$329
Skate Boardin'	$3	$5
Skeet Shoot	$11	$29
Skiing	$6	-

Game	Loose	Boxed
Sky Diver	$4	-
Sky Jinks	$6	$10
Sky Skipper	$4	$23
Slot Machine	$7	$21
Slot Racers	$2	$10
Slots	$30	-
Smurf - Rescue in Gargamel's Castle	$13	-
Smurfs Save the day	$21	-
Snail Against Squirrel	$13	-
Sneak 'N Peek	$2	$6
Snoopy and the Red Baron	$16	$87
Soccer	$4	$8
Solar Fox	$6	$11
Solar Storm	$16	-
Solaris	$6	-
Sorcerer	$9	$66
Sorcerer's Apprentice	$7	$17
Space Adventure	$16	-
Space Attack	$4	$11
Space Attack (T)	$4	$11
Space Canyon	$12	$220
Space Cavern	$4	$15
Space Combat	$7	$17
Space Invaders	$4	$10
Space Invaders (Sears)	$6	$11
Space Jockey	$3	$4
Space Raiders	$6	-
Space Shuttle - A Journey Into Space	$10	$25
Space War	$4	$10
Spacechase	$8	$23
Spacemaster X-7	$8	$39
Speedway II	$6	$21
Spelling	$5	-
Spider Fighter	$6	$11
Spider Maze	$46	-
Spider-Man	$7	$18
Spiderdroid	$53	-
Spike's Peak	$109	-
Spitfire Attack	$11	-
Springer	$87	$445
Sprint Master	$8	$9
Spy Hunter	$33	$89

Game	Loose	Boxed
Squeeze Box	$5	$13
Sssnake	$5	$17
Stampede	$5	$14
Star Fox	$7	$23
Star Raiders	$7	$10
Star Raiders (Sears)	$8	$10
Star Ship	$8	$27
Star Strike	$29	$164
Star Trek-Strategic Operations Simulator	$13	$45
Star Voyager	$1	$6
Star Wars - Jedi Arena	$10	$18
Star Wars - The Arcade Game	$28	$71
Star Wars - The Empire Strikes Back	$6	$13
Star Wars Return of the Jedi - Death Star Battle	$13	$29
Stargate	$13	-
Stargunner	$46	$57
Starmaster	$6	$11
Steeplechase	$10	$19
Stellar Track	$8	$44
Strategy X	$13	$34
Strawberry Shortcake - Musical Match-Ups	$5	$7
Street Racer	$3	$17
Stronghold	$130	$880
Stuntman	$17	$144
Sub Scan	$10	$35
Submarine Commander	$13	$111
Subterranea	$59	$220
Suicide Mission	$13	$21
Summer Games	$9	$21
Super Baseball	$8	-
Super Breakout	$6	$8
Super Breakout (S)	$4	$8
Super Challenge Baseball	$4	$10
Super Challenge Baseball (T)	$6	$11
Super Challenge Football	$6	$10
Super Challenge Football (T)	$7	$8
Super Circus	$7	-

Game	Loose	Boxed
Super Cobra	$7	$12
Super Ferrari	$5	-
Super Football	$6	-
Super Kung-Fu	$15	-
Superman	$7	$23
Superman (Sears)	$6	$23
Surfer's Paradise	$39	$99
Surround	$4	$23
Survival Island	$138	$220
Survival Run	$10	$109
Sword of Saros	$185	$220
SwordQuest - Earthworld	$4	$23
SwordQuest - Fireworld	$4	$18
Swordquest - Waterworld	$146	$549
Tac-Scan	$8	$15
Tank Brigade	$34	$275
Tank Plus	$4	$12
Tanks But No Tanks	$44	$189
Tapeworm	$13	$21
Tapper	$29	$109
Target Fun	$2	$12
Task Force	$5	$8
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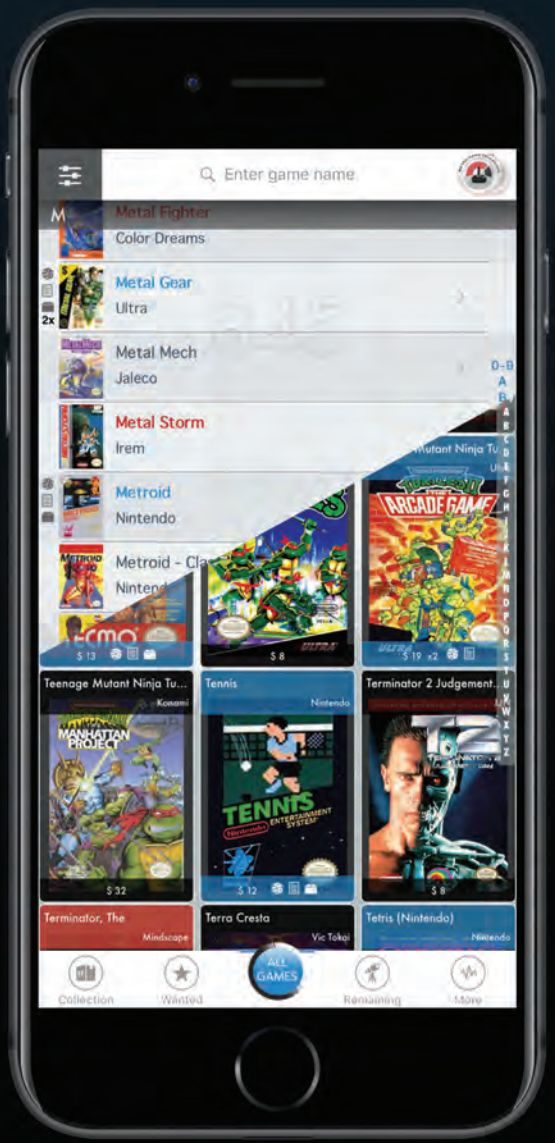

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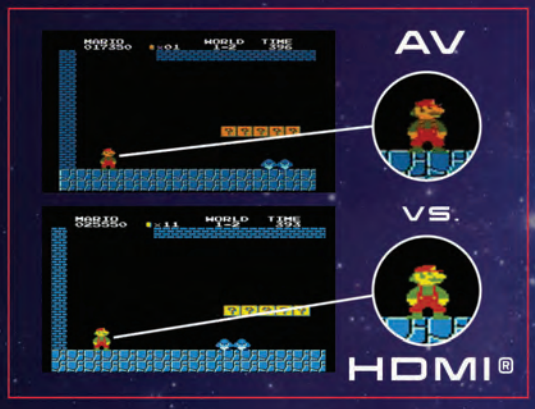

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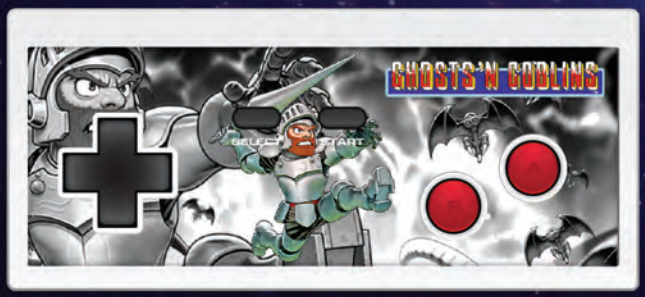

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