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THE Bio-degradable Source for Videogamers

50th ISSUE EXTRAVAGANZA EPISODE II

DIGITAL

THE
ALUMNI
STRIKE BACK

PRESS

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Issue

52

fifty II

Fifty II. Editor's BLURB by Dave Giarrusso



We had a lot of big plans for our 50th issue ("DP# 50: fifty!" just in case your short term memory functions a bit like mine does as of late) and fortunately, most of 'em made it in.

UNfortunately, due to time and space constraints, and a mischievous orange tabby by the name of "Pickles", a scant few of 'em got left on the cutting room floor. The one portion of the 50th issue that we (okay, actually John) were working really hard on was the "alumni moments" section - a section devoted to all the game designers and artists who shaped what we've come to call our favorite pasttime. As you can probably imagine, it was a big undertaking - too big to make it into the pages of issue #50.

BUT - guess what? John kept nagging everyone in his most convincing voice and eventually, with nothing but the most polite coercion, managed to round up the troops. In fact, everyone had such a blast working with John that we wound up with tons more material than we had originally anticipated having.

Which brings us back to THIS issue - the brainchild of John "Big Daddy" and "I'll get to it when I get to it" Hardie. DP issue #50. Part II. In DP issue #52. Get it?

So join me in extending a hearty "thank you" to Big John and all of the folks who took time out of their busy schedules to sit down with us and pass along some of their favorite gaming anecdotes of the past.

THANK YOU!!

And if you really want to thank John, buy him a beer the next time you see him. If John hasn't earned the right to kick back with a cold one, nobody has.

I really enjoyed reading through this issue, and I think you will too. Oh, and please forgive us if this issue reaches you just a little bit late. The good news is that you'll be receiving issue #53 very, very soon after this issue hits your mailbox!

Game ON, everyone!



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ON THE COVER

Alumni Strike Back! by Dave G

That's right, it's a sequel. Just like George Lucas was unable to fit his entire "vision" of the *Star Wars* story into one movie, we simply weren't able to cram our vision for DP issue #50 into a mere fifty pages. So here's another entire issue devoted to our 50th issue celebration.

May the games be with you!

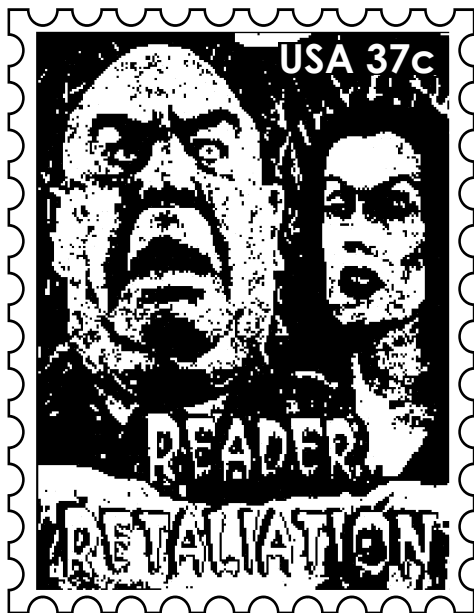
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JUCKER FOR SUPERVISION

Please HELP!!! I think I may have come down with some rare videogame disease!!!

I actually played a SuperVision game and enjoyed it!?!?!?

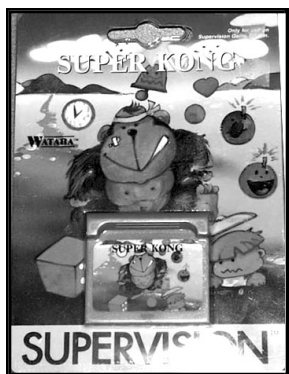
I have a SuperVision that I played a few times and stored away. Going thru my collection I came across the SuperVison, put in a cart and started playing. The game is Sachen Super Kong. It's a simple game with you climbing a rope on one side while Kong climbs a rope on the other side. The object is to knock the other guy off the rope by throwing (rocks??). I think there rocks. Of couse Kong has a (boulder??) and only has to hit you once.

There are various objects falling down the screen between the two ropes, some help and some just block your shots.

The first time I played I didn't know what was happening and I thought the game was garbage. I played a few more times and before I knew it I was hooked. This game would actually make a nice homebrew on ColecoVision. I wish I could make it.

After playing this game I have a new found respect for the SuperVision. Does anybody else know of good SuperVision games??

Also, I looked at the rarity list and see



there are no ratings for how common or rare the carts are. Anyone have a guess how widespread these games are?

Well, gotta go. The level I'm stuck on now has these little bugs that climb up the rope if your not fast enough dislodging Kong. I'm gonna beat that level!!!

I think I may need help!! I'm playing a SUPERVISION game..... - Neotokeo2001

From the desk of Joe: I never thought it was that bad of a system either. It blows Game.com and R-Zone away, for certain. Nice big viewing area, and even has a hookup for television viewing (which has become pretty rare), something rather unique to handheld systems.

I've found that the PUZZLE games are really good and the ACTION games are pretty weak. There are a few Tetris clones that work fine, as well as a

Shove-it style game and several other puzzlers - very little motion involved in these, a good thing for the system overall.

As always, I'll point you to our complete list. The rarities aren't finalized yet because the list itself is still being reviewed (I turned up two games last week that were not on Syd Bolton's original SuperVision list), but this should be complete at least in terms of US titles:

<http://www.digitpress.com/lists.htm>

If you want to get a look at some screen shots, this site does a good job at representing SuperVision:

<http://www.vgmuseum.com/sv.htm>
Game On!

FOUND FAMICOM

Hi all, I recently got a bag of carts and some floppy disk like carts that I have no idea what system they belong to. I think the carts are for Famcom but have zero idea what the floppy disk is for.

I have about 12 disks and 27 various

carts. Heres a link to some scans i took of a disk and a cart.



Nintendo Famicom Disk System disk. This one's the real McCoy, but beware inferior bootleg disks that you may find at pawn shops.

If anyone has any idea of what system the floppy is for please let us know. Thanks a bunch - MrXanthis

Mr. X old buddy, the carts you've got there are, as you have surmised, Famicom carts. The disks are also for the Famicom. You'll need the Famicom Disk System to play 'em.

VIC VALUE

This has been sitting on the shelf with a pile of carts purchased at a local thrift. When I bought it, I thought it was for a TI 99/4a, but I am having second thoughts. Any ideas? - Zman

You're the proud owner of the Vic 20 version of Q*Bert, Zman. The DP Guide

values the cart at \$4, so if you picked it up for less than that, congrats!



ZIC ZAC ZADDER

I have a question about the NES Zapper Gun - it's about the colours. I've seen dark grey/light grey models and I've sen red/light grey models (eg: mine). Can anyone clear this up for me? Thanks - Dreamcaster

You've got the second version of the Zapper. A few years ago, authentic looking toy guns were being mistaken for real guns with disastrous results. The Zapper and other game and toy guns were remade in bright colors to help distinguish them from the real deal. Whether or not it helped is anyone's guess, but the fallout from the whole bruhaha is that now we've got light guns in every color of the rainbow.

Got a gripe? Thinking of thanking us? Cooking up a question? Address all your eloquent e-mails to us at digitalpress@email.com. If we respond to your letter in a fantastic future issue, you'll be able to brag to your fun-lovin' friends and family!

ROMPAGE



Featuring John Hardie



A Brief Introduction to 52: 50, II

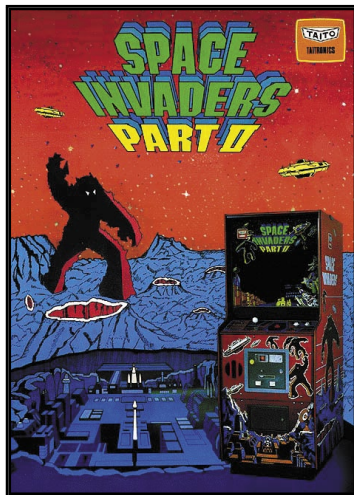
Fifty Most Memorable Moments! It sounds so easy. Just e-mail fifty videogame alumni, cut and paste their responses and presto: instant issue! Little did I know just how untrue the previous statement would be. A little history about this memorable issue is in order...

Back when we were brainstorming ideas for milestone issue #50, one of the brainiacs here at DP (I honestly can't remember who) suggested doing a massive 50 most memorable moments in videogame history. Since similar projects had been done in the past by others we decided that we needed a variation on this theme. It came about that instead we should have the single most memorable moment from 50 videogame industry alumni. I absolutely loved this idea but was never

able to get seriously going with the legwork involved. Our whip-cracking editor couldn't wait any longer for me to get off my ass and went with another theme instead. Still I was determined to see this through.

I then hit upon doing a semi-sequel to issue 50 called issue # 50-II. Sort of taking from the **Space Invaders Part II** thing but planning to have it actually be issue #52. See how clever I am sometimes? Getting these stories was

not the easy chore I expected. The first wave of e-mails brought in about half of the responses needed. The second round fetched us approximately twelve more. There were some strays here and there and finally we were down to two more needed. Dave had given up on the deadline thing a while ago and just let me run with it. At this point I had to get serious. I threatened one alumni with physical harm if he didn't provide a story (Thanks Jerry!) and



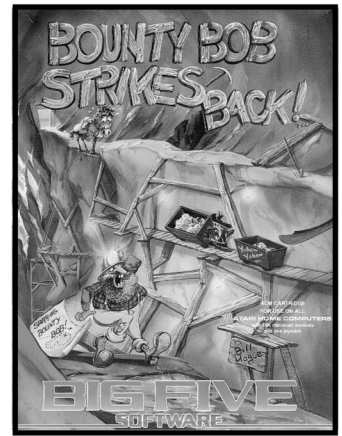
took to the phones to bother several Alumni during their dinner in the hopes they'd give me something just to get rid of me. Finally, we got the last piece of the puzzle. And only a month or so over deadline to boot.

There are some great stories inside. Some alumni had one story that stood above all the rest while others provided us with several moments to

choose from. There's a bit more than 50 moments inside as we didn't cut anyone's writing. If someone gave us their top five moments then that's what we published. What's especially fascinating is the range of alumni we got responses from including several CEOs and upper management. From an adventurous berry-eating bear to corporate cartridge stealing, it's all in here.

I hope you enjoy what I expect will

Looking for a bargain?



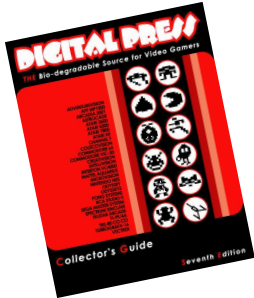
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one day be part of Digital Press' 50 Most Memorable Issues. A lot of blood, sweat, and tears went into putting this together (actually, it was just blood and most of it spilled was mine at the hands of Dave G.) We're proud to finally be able to offer this issue to you, our beloved readers.

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Some video game publications pride themselves on being there "first". We're a little different. Since Digital Press readers consist primarily of multi-system owners of hundreds (some of us thousands) of game cartridges and discs, our world has become one where time is meaningless and being "first" doesn't count. Atari 2600 and PlayStation2 games can be reviewed on the same page. We are fans of gaming, not of any particular system. Do you have a constant desire to play? Then JOIN US - subscribe now! It's STILL just ten bucks for six issues.

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50

Most Memorable Moments

by Team Videogame Alumni

LEE ACTOR

COIN-OP SNAKEPIT; ATARI 8-BIT ADVANCED MUSIC SYSTEM

In 1984, Nolan Bushnell arranged a big press conference/party to announce Snakepit, the first game produced for his new company, Sente Technologies, and its modular arcade game system, the Sente System. As the designer/programmer of Snakepit, I took part in these activities, including being photographed with a large, heavy boa constrictor draped on my shoulders. After the event, I recall with crystal clarity meeting Nolan in the hallway, where he gave me the thumbs up and beamed, "Slam dunk!"



Lee Actor: Slam dunkin' royalty checks right into the bank.

Unfortunately, after a large pre-sell and initial promise of success, production problems (failing power supplies) and the later financial collapse of Pizza Time Theater, the parent company, doomed Snakepit in the marketplace.

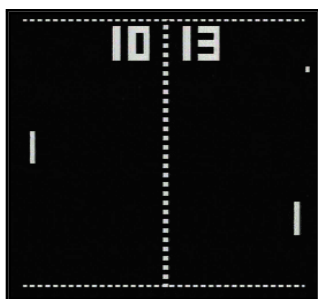
The most memorable moment of my overall videogame career was the day in early 1991 that

Polygames, then Sterling Silver Software (actually Lee Actor and Dennis Koble) received its first significant royalty check from Electronic Arts for **PGA Tour Golf**. That product had launched our company, and over its two-year development had come close to being canceled more than once. With a new production team at EA to champion the product, internally it changed from ugly wart to crown jewel. PGA Tour Golf was included as a pack-in with the new IBM PS/2 computers, and was the beginning of a hugely successful franchise product for EA and Polygames. That first big royalty check came when we were still unsure if our company would be successful, and it represented an achievement creatively as well as financially. There would be many more, and significantly larger, royalty checks coming our way in the future, but the first was by far the sweetest.

AL ALCORN

ATARI ENGINEER; CREATOR OF PONG

My most memorable moment was when we fired up the prototype Pong chip and it worked! We had spent six months of our lives focused on making that chip work and it was quite a relief when we put it into a test fixture and we powered up and it worked. No one had ever used this high speed N



Al Alcorn: risking it all for Pong.

MOS technology in a consumer product before and we had never made a custom chip before. We took a big risk and it paid off.

STEVE BRISTOW

ATARI VP ENGINEERING; NUTTING COMPUTER SPACE PRODUCTION TECHNICIAN; COIN-OP TANK

I remember when the *Superman* movie, Atari Superman Pinball, and the Atari VCS **Superman** home game debuted at premier of the movie in NYC with Christopher Reeve and all of the other stars in attendance.



Steve Bristow: Remembers some super times, man.

BOB BROWN

ATARI VIDEO MUSIC CREATOR; HEAD OF VCS PROGRAMMING DEPARTMENT; STARPATH FOUNDER

In answer to your question, I guess the most exciting moment for me in my involvement in video games came literally right at the beginning. It was the idea of hooking a box to the antenna of a person's TV so that they could play the then popular coin-op games right in their own homes. It was extremely exciting because it was obvious it could open a huge market. The steps that created that idea came from 1) The fact that I had been asked to help develop a universal sync chip for Atari's coin-op games, and 2) An idea I had to develop a box to connect to the TV which generated colorful patterns when music was played into it. The latter idea came from a product called a Go Scope which achieved



Bob Brown: Hooking into a huge market via your TV antenna.

the same result; however, the Go Scope wasn't too practical because it required that a person buy a completely new hi-fi TV system, which in those days was about \$1,000.

You didn't ask for it, but the second most exciting moment was in the Fall of 1975 when I walked into a Sears store and first saw the **Pong** game sitting on the shelf. Fortunately, they didn't remain on the shelf very long.

STEVE CARTWRIGHT

2600 **BARNSTORMING**,
FROSTBITE, **MEGAMANIA**,
PLAQUE ATTACK, **SEAQUEST**

- The time Activision flew every employee and their spouse to Maui for a week.

- The **Piffall** Party at the Desert Inn, Las Vegas - rumored to cost over \$250,000 (which was like \$5 million back in '82).

- The CES where the term "everybody and his brother is getting into the video game business" was exemplified when the Quaker Oats Company had a video game booth.



Steve Cartwright: Everybody and his brother wanted to be like Steve.

DON DAGLOW

MATTEL DIRECTOR
OF DEVELOPMENT;
INTELLIVISION **UTOPIA**,
TRON: SOLAR SAILER (WITH
KEITH ROBINSON)

My list by decade would be...

1970's: The first time I got a fan letter for one of my games, in 1972. A student in Boston who had played my *Star Trek* game wrote to say how much he liked it. I hadn't even realized the game had been shared with different colleges around the country, since I'd written it for our university mainframe.

1980's: January, 1982 CES. Mattel had taken a chance by publishing *Utopia* for Intellivision, the first sim game in the console market, which I designed and programmed. It was introduced at the show and the next day my wife back home opened the morning paper and saw a screen shot from the game on the front page of the business section. An incredibly great feeling -- we took a chance and it worked. (Don't ask how many of my game ideas haven't worked over the years!)

1990's: Spring, 1991, the launch of **Neverwinter Nights** on AOL. Several groups had tried to do massively multiplayer role-playing games with graphics, but none had succeeded. Steve Case had personally made the call to greenlight the high-risk game in a tense meeting in San Francisco. Thanks to the programming skills of Cathryn Mataga and Craig Dykstra, *Neverwinter Nights* successfully went live and ran for seven years. We paved the way for **Everquest** and the other big-budget titles that followed... all with a total team size that never exceeded five people.

2000's: Christmas, 2002, the launch of **The Lord of the Rings: The Two Towers** for PS2. We've talked for years about how we wanted to blur the line between what is a movie and what is a game. This is the first time we actually did it.



Don Daglow: Taking risks to reach his own Utopia.

WARREN DAVIS

COIN-OP **Q*BERT**, **US VS. THEM**, **JOUST 2**

To answer your question about memorable moments, there have been many for me over the years, but the one that stands out (no doubt because I was relatively new to the video game business) would have to be my first sight of hundreds of Q*Bert upright cabinets rolling off the assembly

line. The sheer enormity of seeing rows and rows of these large machines was both humbling and elating. It was equaled only by my visits to arcades to watch people (who had no idea who I was) playing the game and reacting with complete spontaneity to the experience. There is no joy quite like the joy of pleasing masses of people.



Warren Davis: Q*Bert designer, pleaser of the masses.

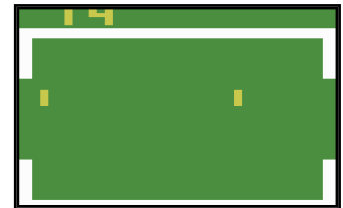
JOE DECUIR

ATARI 2600 AND 800 CHIP
DESIGN AND SYSTEM
DESIGN; 2600 **COMBAT**, **VIDEO
OLYMPICS**

Most memorable moment that is printable: It was November 1977. The Atari 2600 had been in stores a couple months. It was Christmas shopping time at the Sears store in Mt View CA, the store closest to the Atari engineering offices. I went to see how it was doing.

There was a huge crowd of kids milling around a unit set up to play *Combat*. In wave after wave, families would bring their kids and drop them while they went off to do other shopping. The kids would stand around waiting their turn to try their hand at the game. In the process, they would learn the game, because the game play is not terribly complicated. The lucky ones would get to play before their parents would come and drag them off.

I stood in awe. After a couple years of work, this was the payoff. All those kids were delighted to play our game. 250,000 units would sell in that first season, and most would be bundled with *Combat* or *Video Olympics* (the Sears branded units).

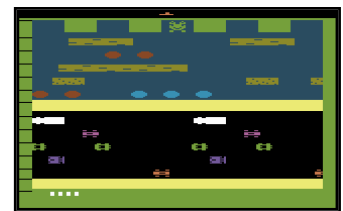


Joe Decuir: Designer of AWESome stuff; standing in AWE at the local Sears.

ED ENGLISH

2600 **FROGGER**, **MR. DO!**, **ROC
'N ROPE**

I would say the time I was riding in a limo at one of the CES shows right after *Frogger* came out. I was with the Parker Brothers Vice President of Marketing, Rich Stearns, and he said to me "You're flying with the Eagles now!". He was referring to the fact that 2600 *Frogger* had reached millions of people (it had sold 4 million copies in the first year, \$80 million wholesale). This was at a time when there were only 13 million systems in existence.



Ed English: After designing the Parker Brothers version of 2600 Frogger, Ed was flying with the eagles, baby.

WILLIAM FISHER

INTELLIVISION **SPACE HAWK**, **SPACE SPARTANS** (WITH
STEVE RONEY), **B-17 BOMBER**

At E3, I bumped into a former co-worker from Mattel Electronics, where I worked before starting my own game company. She was standing next to a friend of hers who was a great fan of certain classic games. She told him that I

was one of the programmers for B-17 Bomber, which turned out to be one of his favorite games. He excitedly talked about how much he played that particular game. He said that he'd actually cleared the map of all targets once, and even had a Polaroid photo to prove it. I'm amazed to meet people like this, a full twenty years after I worked on the game, who to this day have such fond memories. It was a great moment.

But it gets better. Not more than an hour later, I was walking through the lobby when I met another recent business acquaintance. He was at the show with his wife, and introduced me to her as "a guy who worked on B-17 Bomber." I had to laugh.

Classic gaming is not just about nostalgia. It's about recognizing that good game play comes in many packages, and is completely separate from the pretty graphics and elaborate multi-user systems that are so common today. There are far too many modern game designers and developers who forget this important lesson.

Amazingly enough, we're right in the middle of a classic revival of major proportions, on mobile phones. As it turns out, our classic game expertise is a major selling point in that market. When we tell them that we come from the "old school" where 16K was a lot of memory and that we know how to write great games for limited platforms, they become very interested in working with us. They realize that classic gaming required a special, rare talent that's not easily found among the new generation of gamers.

ANDY FUCHS

ATARI 2600, 5200, 8-BIT SOUND GURU INCLUDING 2600 MILLIPEDE, OBELIX, PENGU, STARGATE

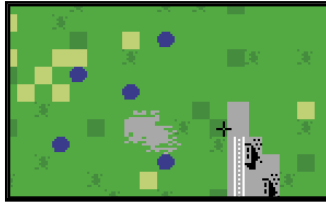
There were so many. Here's a few...

Sound guy technical achievement: Shoehorning functionality into minimal resources was always a great challenge, especially on the Atari 2600. As a sound guy, it wasn't unusual for a 2600 developer to request a soundtrack from me, with very strict resource limits—like 48 bytes of ROM and 3 bytes of RAM!

But the one thing that really tickled me was when we got a 2600 to speak. It couldn't do video at the same time, but Tod Frye and I got it to actually speak digitized words! That never made it to market, but it was a great technical thrill.

Hollywood glamour: During development of the Last Starfighter cartridge, we went to Hollywood to see the unfinished film. (Not many people have seen that film with all the spacecraft as unrendered wireframe...) While we were there, they had a meeting with us high up in the studio building looking over Hollywood. Gourmet catering, drinks poured by servants in livery — I was a VIP for a change.

Tod Frye moments: Which Tod Frye moment stands out the most? The time he cut his head on the fire sprinkler while



William Fisher: Bombarding gamers with fond, long-lasting memories.

running around on the walls is fairly famous. Then there was the time he parked his new Alfa Romeo Spider (license number "PACMAN'S") 'inside' the lobby of our building... Just because he figured out that he could.

But I think my favorite was coming into the development lab and seeing a forest of golf clubs hanging from the ceiling: apparently Tod discovered that you could smash a hole in the acoustic tile and the club would remain hanging there. So he took all of Howard Warshaw's irons and hung them like that.

ROB FULOP

2600 NIGHT DRIVER, MISSILE COMMAND, DEMON ATTACK, COSMIC ARK, CUBICOLOR

I particularly enjoyed attending one of the early "classic gaming" parties a few years ago, and being told by some woman that she heard that "Rob Fulop will be here later on!" ... I wasn't sure if she was putting me on or not, so I asked her what she had heard about the guy ... she quickly confided in me that she had never met Mr. Fulop personally, but she had heard he talks rather fast, and was funny! I'm not sure if she was more embarrassed than I was when she finally figured out who I was ... but it was quite a memorable moment!

Another classic moment was during the time that **Night Trap** was getting a lot of negative publicity, with the primary "witch hunt" being led by Senator Joe Lieberman, who decided that "cleaning up videogames" was as good a cause as any for him to get behind. One day, my friend Michael (who wrote for the Washington Post at the time) called me up to announce that Senator Lieberman had gone out and recruited none other than CAPTAIN KANGAROO to show up in front of his "clean up videogames committee" and talk about Night Trap, and for me to tune my television in to whatever channel was broadcasting this spectacle. I still remember the chilling feeling of watching my childhood hero and friend, Captain Kangaroo, spout out some sort of rhetoric about how damaging a game Night Trap was, etc. It was soooo clear that the old guy had never even seen the game, let alone play it.



Rob Fulop: Captain Kangaroo turned his back on Rob, but we still love him. Rob, that is.

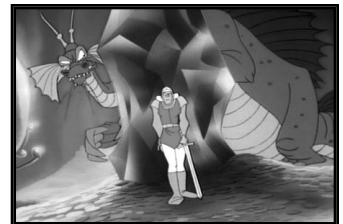


Andy Fuchs: Conversing with the Atari 2600.

GARY GOLDMAN

COIN-OP DRAGON'S LAIR, SPACE ACE CREATOR; ANIMATOR: AN AMERICAN TAIL, LAND BEFORE TIME, ALL DOGS GO TO HEAVEN, TITAN A.E., AND ANASTASIA

Probably the most surprising memory for me was when Don Bluth and I went to Denver to promote Dragon's Lair in the Summer of 1983. We were taken to the largest arcade in the U.S.A. What astounded me was the sight of a single Dragon's Lair machine with four monitors on top, a line of about one-hundred people waiting to play the game, quarters lined up across the panel and about forty people just watching the monitors.



Gary Goldman: Dragon's Lair was a cinematic success.

We couldn't believe the arcade audience response. It was like an opening day for *Raiders of the Lost Ark*.

GEORGE GOMEZ COIN-OP SPY HUNTER, TRON

I remember my first industry all-nighter: I spent the night creating storyboards to pitch management to let us do TRON. There were several internal teams vying for the opportunity and the guys I was with were the least experienced and least likely since most of us were employed in a support role to help the company engineer externally licensed games for manufacturing.

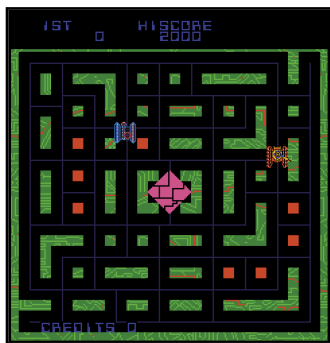
We had been given the script only as a courtesy because we hounded management for it. Most of the company's established design teams could get managements attention with a simple conversation, and their descriptions of how they would approach a game design were simply arm waving. So having a visual background I felt that maybe we could get their attention by leaving nothing to the imagination. I spent all day with the 3 other guys that worked on the initial game ideas (Bill Adams-programmer, Attish Gosh-hardware designer, & John Pasierb, who was the chief engineer at the time) dreaming up our implementation of the movie script into games and at 5pm I started drawing. I generated 5 big boards that had the design of each rack (nowadays a "level") and I made little cardboard objects like in a board game that could be moved around and positioned to represent the interaction of objects, etc. Being an industrial designer I also couldn't resist pitching a cabinet concept, controls and even a tournament environment for the big intro tournament.

It worked, the next day some combination of our tired enthusiasm and the fact that we actually showed them more than arm waving got us a "Go". We did repeated presentations all day to marketing, Midway management, Bally management, etc. By 6:00 pm I was a zombie.

JOHN HARRIS 2600 JAWBREAKER; ATARI 8-BIT FROGGER, JAWBREAKER, MOUSEKATTACK

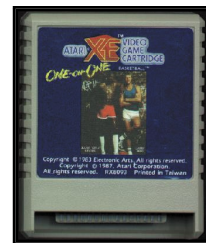
I had traveled to Kentucky on an unrelated matter, and brought my Atari 800 with me to continue work on a project. Someone noticed me walking through the airport with it, and came up to me and said, "I see you have an Atari computer. Do you like it?" "Oh yes", I replied, "It's what I do for a living." He asked for my name, and after I told him, his eyes opened wide and he said, "THE John Harris?" It was the first time I realized the significance of what we were doing.

TRIP HAWKINS FOUNDER, ELECTRONIC ARTS, 3DO



George Gomez: Taking the bull by the horns, working on TRON.

My most memorable moment was meeting Julius "Doctor J" Erving and with his help, making the first ever video game that featured a celebrity or athlete. "Doctor J and Larry Bird Go One on One" was released in 1983 and was the birthing ground for what developed into EA Sports. The game won several awards and was one of EA's first best-sellers. After Julius retired he was replaced in the game by a fellow named Michael Jordan.



Trip Hawkins: One on One with hoops legend, Dr. J.

KEITHEN HAYENGA 5200 REALSPORTS BASEBALL, TEMPEST

I remember two incidents involving RealSports Baseball that really stand out...

We were at the 1984 CES in Las Vegas and I was standing in back of the area where we were demonstrating all of our latest games. I remember a couple coming by and playing 5200 RealSports Baseball for a while. I overheard them making references to the Intellivision system they had just bought. After a little bit, the guy said to his wife/girlfriend "We bought the wrong system!" That really made my day!

Another incident occurred at the Atari games division in Milpitas. We were on the second floor and the coin-op guys were on the first floor. There were two guys from the coin-op division that would come by on their lunch hour each day to play baseball. Meanwhile our lobby had approximately fifty coin-op games available for the employees to play.



Keithen Hayenga: Hitting home runs with RealSports Baseball.

ROGER HECTOR ATARI ENGINEER; COSMOS DESIGNER; FOUNDER – VIDEA

There are so many memorable moments of early Atari, here are a few:

- In the early days, so much of what we did was pure invention. There were no established "rules" for doing things, so we did whatever we had to to make things work. Ed Rotberg was working on a new vector-graphic coin op game (Battle Zone) and he asked me to design some 3D tanks and space ship graphics for it. But there was a small problem. I think this was the first 3D game, and we had no tools for designing 3D graphics that Ed could input into code. So we worked together and I used a process called "loffing" to design graphics that assigned vector points in space and I gave it to him on graph paper. This process goes back hundreds of years to the days of wooden ship building, but it came in handy for a first application of new game technology.

- As a part of creating the Cosmos holographic game system, we had to figure out how to mass produce holograms... something that had never been done before.



Roger Hector: Secret lasers, holograms, and Cosmos.

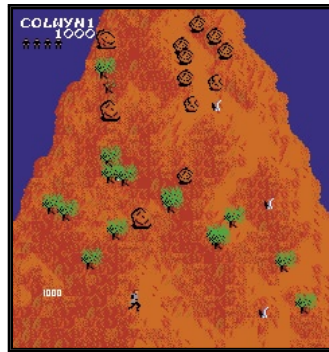
After buying all the holographic patents, setting up a "secret" laser lab away from the rest of the company, and hiring some high powered scientists to run the "Tank Killer" laser, a very complex embossing technique was perfected and holograms could finally be made for pennies apiece. Even though the Cosmos product never made it into the marketplace, the holograms eventually did. When Management decided to shut down R&D in 1982, they had no idea of the uniqueness of their proprietary technology. As it was shut down, the scientists left and took the technology to other companies who made a fortune exploiting embossed holograms... like the ones on everyone's credit cards. It all started at Atari!

- We had this very special "hot rod" video projector given to us by the manufacturer for evaluation in R&D. We couldn't let it just sit around, so we built it into a special beefed-up race car body and put an old game (Night Driver) into it projected onto a five foot screen... just to see what it would do in the field. It looked pretty cool as it resembled a real formula racing car and it had a special seat that leaned into the turns as you drove. Before going out in public, we wanted to make sure it would hold up to abuse, so we called on the biggest guy in Engineering, Dave Stubin, to check it out for durability. We presented our beautiful shiny new race car to him, confident its construction was worthy, and he promptly raised his foot and *stomped* it on our car... breaking the gas cap off, and breaking our hearts! Now Dave was a really BIG guy, and this became known as "The Stubin Test." It was pretty useful for making sure coin doors and controllers would hold up in the field. After some further rebuilding, the race car (called: **Indy Turbo**) went out on location and amazingly (despite having an old low-tech game in it) became the all-time top earning coin game at this local amusement park.

MATT HOUSEHOLDER
ATARI AND CV MOON/MATT
PATROL; COIN-OP KRULL;
PC AND GENESIS CHIP'S
CHALLENGE, SLIME WORLD

My most memorable career moment was inventing the concept that became **California Games**. Breaking the mold of the stodgy Olympic Games metaphor that had inspired it, California Games was perhaps the first computer game to effectively define itself as 'cool' to a mass audience. It was the first computer game to license music -- "Louie, Louie". It was the first with interactive product placement (**World Games** was the first with product placement.). It was the first computer game to be marketed in a sexy box. Indirectly, it probably led to the creation of The X Games by ESPN -- which tapped into the same 'alternative', rebellious, consumer/sports vein.

During the summer of 1986 the production of World Games (my second multi-event game for Epyx and my second original game design after the 1983 coin-op Krull) was wrapping up and I was thinking about what to do



Matt Householder: Radly creating games from Krull to California Games.

next. My wife, Candi, and I were walking around our hilly, working-class neighborhood of San Francisco, the Excelsior -- the childhood home to both Jerry Garcia and Dan White (for those who care), when we saw a kid roaring down the street on his skateboard. Candi looked at me and commented "You should do a game with skateboarding in it." Immediately, I was struck with the epiphany (the Catholic school and church of the same name, being about one block away) that the game should include nothing but alternative, youth-oriented, non-commercial sports. Candi and I brainstormed as we walked the block or two home and I decided on half-pipe skateboarding, surfing, frisbee throwing, BMX, hacky-sack, and roller skating (roller blades were yet unknown) -- overall vaguely Californian and reminiscent of the 60's and 70's, yet with a modern 80's 'edge'.

When I got some free time at work, I wrote up a brief design document outlining the game, calling it **Rad Sports**. A few weeks later, I presented it at a company brainstorming meeting and it was overwhelmingly approved for full development -- marketing, sales, programmers, artists, and management all 'got it' immediately.

It took a development staff of well over a dozen programmers and artists plus a musician about 9 months to complete the original C64 and Apple II versions. It was translated to nearly every viable electronic game publishing format world-wide. It fueled Epyx' phenomenal growth and expansion into game console (Lynx) development and manufacture.

MATTHEW HUBBARD
2600 SUBMARINE
COMMANDER, DOUBLE DUNK,
DOLPHIN; 5200 REALSPORTS
BASEBALL; ATARI 8-BIT ZENJI



Matthew Hubbard: getting gamers hooked since the 80s. And proud of it.

I remember being at a Chicago CES when Zenji was first being shown to the public; I went up to the hospitality suite and one of the guys from marketing was playing Zenji; I asked him if he wanted to go out on the town with us and he said no, he was going to play for a while. A crowd of us went out, had dinner, went to a couple clubs to listen to the blues, generally having a good time in Chicago, and when I came back to the hospitality suite maybe four hours later, the same guy was at the same game.

"Have you been here all this time?" I asked.
"All what time?" he replied and looked down at his watch.
"Oh, my God."

That was the first time I personally saw someone completely hooked on one of my games; from the standpoint of a programmer/designer, that was my most memorable moment.

JERRY JESSOP
ATARI SENIOR TECHNICAL ASSOCIATE, CONSUMER VIDEO
GAME HARDWARE DESIGN

I have countless special moments that are memorable and it's hard to pick just one. The infamous "Flying of the Frog" has been talked about by many (I was the actual



Jerry Jessop: Partying on down with the Atari Brass like it was 22 years before 1999.

perpetrator) but I'll pick one a bit older. It was Christmas of 1977 and I was working in the consumer PCB rework area primarily fixing dedicated consoles like **Video Pinball**, **Stuntcycle**, and **Sears Speedway IV** (I hated those) and the occasional 2600 when needed.

Production was running virtually non stop as the holidays approached and I was amazed at the energy level in the company. I fondly remember this time despite the long hours, hard work and terrible pay of \$1.75 hr. To make matters worse I had a 25-mile commute each way in traffic, but Atari is where I knew I wanted to be. What other company would have the entire executive staff, Nolan included, working on the assembly line on a Sunday before Christmas to help make our retail commitments?

The company threw us a Christmas party one Saturday night at the "Bold Knight" on Matilda Ave in Sunnyvale about two miles from our facility that was unforgettable. What a cast of characters, it was as if San Quentin and the local Hells Angels had joined forces with Atari management. While many of the people looked scary, in fact these were the nicest bunch you could ever hang out with. Two of my favorites were there and drunk as could be, J.P. and Dipak Patel my two Indian friends. They had spent too much time trying to get "high score" on the coin operated breathalyzer set up in the lobby. This device had all the makings of what you DIDN'T want at an Atari party, alcohol and a scoring mechanism. The machine saw nonstop use as people lined up ten deep to try their hand at high score. By midnight things had degenerated into a drunken orgy of projectile vomiting until we were all thrown out of the establishment never to be welcomed back. Last I saw of Dipak (who looked exactly like Peter Sellers in the movie "The Party") he was lying on the ground in the parking lot. A good time was had by all that night!

JOE KING

INTELLIVISION GRAPHICS
WIZ, **MOTOCROSS**, **LOCOMOTION**, **SPACE SHUTTLE**.
CO-DESIGNED **HOVER FORCE**,
MAGIC CAROUSEL

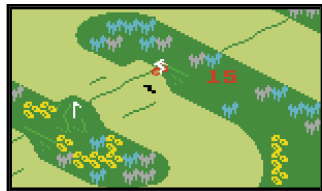
My Video Game highlights would be having Mattel

Electronics build their entire Consumer Electronics Show (CES) around the ground-breaking 3D helicopter/flight/combat simulator Hover Force that I designed with Steve Ettinger. They even brought in an actual heli-cockpit for the demonstration area!

That and sending photographs to our VP of Application Software Development, Gabriel Baum after we had turned his office into a cigar smoke filled billiard hall for one of Keith Robinson's after-hours video productions. Ah, - those were the days!

GARRY KITCHEN

PARKER BROS. **BANK SHOT** HAND-HELD; 2600 **DONKEY**

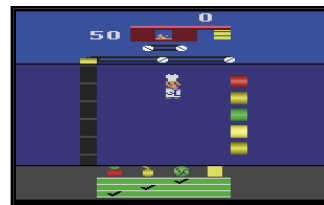


Joe King: Hovering at CES in a heli-cockpit. The Force was with him.

KONG, SPACE JOCKEY, KEYSTONE KAPERS, PRESSURE COOKER

I remember one particular incident that occurred right after I started at Activision...

Activision was flying all of its employees and their spouses to Hawaii for a vacation. One programmer, who I won't name, was adamant that this was nothing more than a scam and that they were going to have us in meetings, training, and seminars for the whole time we were there. This person declined the trip and didn't come along. Naturally I jumped at the chance of going to Hawaii. When we got there and checked into our rooms, I found a sheet of paper on the hotel bed listing a series of meetings and seminars for us to attend. I thought to myself, "Son of a gun, he was right!" I caught up with one of the execs that was running things and asked him about the list of meetings. His reply was "Don't pay any attention to that. We had to do that to make it look good for tax purposes. Have fun!" Needless to say, the programmer who didn't come was kicking himself when we got back.



Garry Kitchen: "Training seminars" in Hawaii.

DAN KRAMER

ATARI HOME CONSOLE **TRAK-BALL** CREATOR

After laboring and tweaking for a year in the background, on what would eventually become the Trak-Ball products for Atari's game and computer systems, I was finally told that there would be an "official" project started. It would be to develop and produce a version of Trak-Ball for the upcoming 5200 SuperSystem. I already had many parts of the circuitry functional, and had prototyped a simple example that I was using for demonstration in the hardware engineering lab.



Dan Kramer: Pilfered proto, produced perfect product that pleased players.

The industrial and mechanical design groups held concept meetings and commissioned two models of possible varieties for the new Trak-Ball: one was a single-sided unit, non-symmetrical with a cue-ball and single keypad to its left, which would be in great favor with right-handed players ("the majority"). The other was a larger, fully symmetrical unit with twin keypads and fire buttons, on either side of the ball. This one would not discriminate against left-handed players, but would obviously be larger, more expensive to build and package. Ah yes, the battle of the pennies and dollars!

Only when the two models had been hashed over by the upper level decision-makers was I summoned to see them, and it was noted that the following week, the decision would be made as to which version would be finally made. The smaller, single-sided one would likely win out, I was told, most likely for economic reasons. I was allowed to take both models for a few days, then to return them on the day of the meeting.

The two models were non-functional, but cosmetically beautiful and built to scale. The balls were stuck in place

with hot glue; the fire buttons were just little red plastic rectangles with no switches underneath them. YET!! I swung into action immediately: the single-sided Trak-Ball model was smuggled home that very day, and hidden in my closet wrapped in a towel. I tore open the double-sided model and went to work on my nefarious plan. The cue ball was replaced with a functional prototype assembly that I had already designed; the fire buttons were freed from their rigidity and set in channels so they would actuate switches underneath. The keypads were activated by mounting their counterparts inside as well. A control cable was wired in through the rear and interfaced to the PCB and keypads inside.

Within four or five days, I had turned a beautiful but inoperative model into the world's first 5200 Trak-Ball!! It played with fabulous alacrity on the newly created version of 5200 MISSILE COMMAND. The scores achieved blew away anything possible with the execrable analog joystick!

I was ready for the final blow. Upon the day of the "final decision meeting", I set up my baby with a 5200 console and TV in the meeting room, and with another cohort for moral support, weathered the storm of protest from the upper levels who attended. "Where is the smaller model?" "Why do you have a 5200 system in here- this is just a concept meeting!"

We stoked up the game, ran a few demo rounds, and the opposition died without a whimper! It was all said and done in a few minutes, and I had cleared the last hurdle!

The rest was history: over a quarter million 5200 Trak-Balls were produced during the lifetime of the console, and I had my first "hit single" in the bizarre world of videogaming. Almost twenty years later, at the first Las Vegas classic gaming show (World of Atari), I learned that my hunches had been absolutely correct. I was approached many times by grateful gamers who had enjoyed countless hours in dark rooms, staring at their TVs while they battled away using my 5200 Trak-Ball!

And the single-sided model has never seen the public light of day ever since I hid it away!

BILL KUNKEL FOUNDER, *ELECTRONIC GAMES* MAGAZINE

Flush, following the initial success of EG magazine, our publisher, Reese Communications, bought out the penthouse floor of the Grumbacher building on 34th St. and 10th Ave. in New York so we could have new offices. This was around 1982. Arnie Katz and I got primo offices, with doors leading out onto a sprawling patio that overlooked the city, the river and even New Jersey, if that's your idea of something to see.

The night of the "Office Warming" party was incredible. I can't tell you about ALL the details, since several are personally embarrassing (what can I say, I was young and

horny) but Don Bluth showed up with a coin-op they had in beta at the time called **Dragon's Lair** and we partied like it was on sale for \$19.99!

Before that, I had never really felt successful. After that night, I always felt successful -- even when I wasn't.

FRANZ LANZINGER COIN-OP *CRYSTAL CASTLES*; NES *TOOBIN'*, *MS. PAC-MAN*, *RAMPART*; 1981 *CENTIPEDE* WORLD CHAMPION

In the late eighties, several years after *Crystal Castles* was released I saw a machine in Santa Cruz. It was still in good condition. I did what I always did when I encountered my old friend, I pressed and held both jump buttons during the attract mode to find out the coin statistics. Much to my amazement, this one machine had collected over 100,000 quarters in its lifetime. After some quick arithmetic I realized that if all 5000 *Crystal Castles* out there had done that (a big assumption) it would mean that the game had grossed over \$100 million dollars. The true figure is probably less than that, but it's fun to dream about it just the same. To think that my game was played 500 million times or anywhere in that ballpark, it's a truly awesome feeling of power and accomplishment.



Franz Lanzinger: *Crystal Castles* machines may have grossed over \$100M. We'd bet it's even more.

RICK LEVINE INTELLIVISION *PBA BOWLING*, *MICROSURGEON*, *TRUCKIN'*

Picking the "most" memorable moment from my "classic" gaming career is difficult, because it was such an exciting time to be a game developer. So, perhaps my most memorable moment is having been lucky enough to have participated in the history of video games and having worked with so many outstanding creative people. I often think of that time period compared to today's game development as similar to the silent films era and the movies that followed. In spite of their limitations, silent film actors, artists, directors, engineers, producers, etc. had monumental limitations to overcome and yet they made films that are still honored today as great achievements.

On a more personal level as the creator of *Microsurgeon* and *Truckin'* for Intellivision, I take great pride in having created fun, educationally oriented video games during the "classic" gaming period. And they actually got published! I was very excited to see the screen (the face) of *Microsurgeon* on the cover of the 1982 edition of *IEEE Spectrum Magazine*. Getting all that functionality into a 4k cartridge (or was it 8k?) was quite an accomplishment and an early form of image compression. On that note, I'd like to quote the following letters I received in the early 80's:

From: Students Teaching Early Prevention (S.T.E.P.),
Promotions Chairman, Brad Robinson, University of NC at



Rick Levine: Designer of awesome Intellivision games that sneakily tricked gamers into learning!



Bill Kunkel: Simply the picture of success.

Chapel Hill, Medical School, Feb. 26, 1983

To: Dr. Weissblut, Xenon Microsurgical Unit, c/o Imagic Corp.

Ladies and Gentlemen:

A health education group was established this year at the University of North Carolina at Chapel Hill Medical School. The program entitled S.T.E.P. consists of medical students going into the public schools to teach seventh graders about a heart disease called arteriosclerosis. Arteriosclerosis is the number one killer in the Western World and only through early prevention by education can we combat it.

One of the educational aids used to teach about heart disease was a Mattel Intellivision video game and an Imagic video cartridge. A group of students played the game to learn how arteriosclerosis actually affects the body.

This letter is to thank and give credit to all those responsible for supplying the game. The original idea was inspired by a Wall Street Journal reporter, Laura Landro, who wrote about the game in an article entitled "The Latest in Video-Game Villains: Plaque, Intestinal Worms and Nerds."

In a letter to the editor from Martin Schamus, Plainview NY to Electronic Fun magazine in November 1983: TRUCKIN' TRASHED

"I've just had an opportunity to see your July review of Imagic's Truckin'. I am greatly disappointed in this review, presented in what I consider the finest video game magazine available to date. I'm quite aware that everyone is entitled to their own opinions, but the reviewers missed out on the most important aspect of this game -- that it is educational. As in his first game [note: that wasn't actually my first game, of course], Microsurgeon, designer Rick Levine has tried to give us a little more than just a mindless, non-logical game, and I think he deserves some commendation. In Truckin' you are given a very useful geography lesson on the locations of around 60 U.S. cities, and in Microsurgeon the locations of the various inner organs of the body are stressed. To top it off, both games are challenging and fun to play. The reviewers were also quick to point out that when you crash in Truckin' the windshield cracks and that you can guess what caused the break. Why haven't I ever read about the majority of games that use weapons to destroy the opposition? Where were your moral standards then? I think it's time your eyes and minds were opened up to all aspects when rating cartridges."

ED LOGG

2600 OTHELLO; COIN-OP DIRT BIKE, SUPER BREAKOUT, VIDEO PINBALL, ASTEROIDS (WITH LYLE RAINS), CENTIPEDE (WITH DONNA BAILEY), MILLIPEDE, GAUNTLET, GAUNTLET II, XYBOTS (WITH BOB FLANAGAN), STEEL TALONS (WITH ED ROTBERG), SPACE LORDS; NES TENGEN TETRIS

There were so many memorable moments at Atari, it is hard to judge which one is more interesting, fun, or the one that made me the most proud.



Ed Logg: We've logged so much time on Ed's games that we've lost count.

For the sake of history, I will pick my first commercial video game, Super Breakout. I was assigned to continue on a game that Dennis Koble (another famous alumni) had started, called Dirt Bike. I was his replacement because he transferred into the consumer group. I heard from Owen Rubin (Orbit, Space Duel, Major Havoc) that Nolan Bushnell had this idea for an update to Breakout. I thought about it for a while and decided I could do this game on the current hardware we were using. So, typical of Ed Logg, I went ahead and started it during the down time on Dirt Bike (waiting for a new paper tape and listings from the computer room). This had never been done before or since that I am aware of. The best part was that it was not approved by management. So they first saw it when it was running and everyone was already having fun playing it. There were six versions in the original version but three of the canyon breakouts did not make it past field test. Progressive Breakout was the most popular because the game was so dynamic. When it came time to do the cocktail version where I had to draw the picture upside down, I came up with some tricks so that all my graphics fit on the small EPROM that was available. The best part was actually seeing "my" game in arcades for the first time.

STEVE MAYER

ATARI ENGINEER, DEVELOPED ATARI VCS

Working with Nolan Bushnell means that there are hundreds of memorable experiences. Here's one I remember fondly... One time we took a new system on location at Fisherman's Wharf in San Francisco. Nolan became the barker bringing in players to try out the system. It was like he was still working the milk bottle toss at an amusement park in Salt Lake City. "Come in, Come in. See the most amazing..." Boy could that man do a pitch!



Steve Mayer: Recalls Bushnell the barker, "step right up, check out the amazing Atari 2600..."

ALAN MILLER

2600 SURROUND, HUNT AND SCORE (CONCENTRATION), HANGMAN, BASKETBALL, CHECKERS, TENNIS, ICE HOCKEY, STAR MASTER, AND ROBOT TANK; ATARI 8-BIT BASKETBALL; CO-FOUNDED ACTIVISION, ACCOLADE



Alan Miller: Mr. Miller has done it all. Literally.

My answer is not really a single event, more of a process. I've got to say it was the formation of Activision, spanning a few months in late summer - early fall of 1979. Working with David Crane, Jim Levy, Bob Whitehead, and later Larry Kaplan, to find attorneys, write the business plan, and secure venture capital. Then opening and outfitting the office, reverse engineering the Atari 2600, creating development systems, and starting to design games. All of this was accomplished in just a few months. It was such an emotional rush. It was all new; no one had ever started an independent video game publisher before. It was a great

time, full of fun, innovation, and a ton of work. But we all felt it was worth it. We were committed to creating the best interactive games for the home audience and for a few years in the early 80's, we felt Activision succeeded at that.

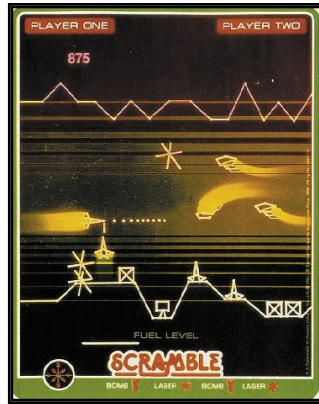
PAUL ALLEN NEWELL
VECTREX SCRAMBLE, 2600
TOWERING INFERNO; COIN-OP
CUBE QUEST

It is a bit difficult to pick "the" most memorable moment I had in the gaming business. Especially when committing it to a public medium.

I think it all comes down to the first time I saw a game of mine in a store. There was a kid playing it and he was trying to convince his parents to buy it. When you see a child rave about something you have created, you know that it was all worth it. I cannot describe the sense of "wow" I had after that.

Allow me to add that I have encountered the opposite. A game I worked on was test marketing and one of the stockholders of the company called me up to scream that his kid said "this was \$&*\$ and never wanted to play the game".

I thank the Wheel of Fortune that the "approval" happened before the "disapproval".



Paul Allen Newell: received praise, and pans, from kids.

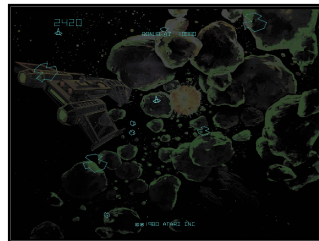
LYLE RAINS

COIN-OP TANK (WITH STEVE BRISTOW), JET FIGHTER, STEEPLECHASE, INDY 800, SPRINT 2, FOOTBALL, ASTEROIDS (WITH ED LOGG), ASTEROIDS DELUXE

I remember how crude the development technology was. This is one of those stories like walking to school through eight miles of snow, uphill in both directions.

Steve Bristow hired me to work on Tank for Kee Games in January of 1974. Computers were big expensive machines that only Fortune-500 companies and the government could afford. The microprocessor had barely been invented, and was too expensive for our products. Personal computers? Ha! I mean, Steve Jobs was working as a technician in Atari's labs that year! It was my first job out of college. I wasn't programming a game; I was designing it in logic gates! (Actually, Steve Bristow had designed most of it. I was debugging the design and adding the "glue" -- things like playfields, collisions, scoring, and audio.) We did the designs on paper. We debugged wire-wrap prototypes with an oscilloscope.

When it came to designing the "graphics," things were even cruder. There was no Adobe Photoshop, or even Deluxe Paint. So I designed the graphics on graph paper. There was a single ROM in the design: an "enormous" eight-kilobit device, which had to hold all of the graphics for the



Lyle Rains: Designing awesome games in the snow, while walking to and from work uphill. Both ways.

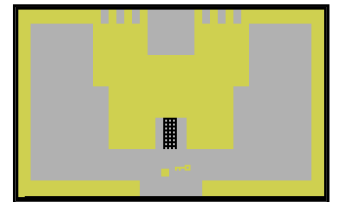
game. The graphics included the tanks, two playfields, and the alphanumeric characters.

We had one piece of "high tech" equipment besides the oscilloscope: a ROM emulator. The programming interface on the emulator was a number of back-lit alternate-action pushbuttons for setting the address and data bits. Since the buttons were alternate-action rather than toggle switches, we used the button lighting to determine its state, and punched the buttons to toggle the data, one bit at a time.

And if that was all, it would have been OK. The catch was that the back-lit bulbs had an average life of only a few days, so we could never keep them all working. Without them, you couldn't tell for sure what address you were at or the data therein. So we just had to "know" the state of the bits, keeping track of it in our heads! See? I told you. It really was uphill. In both directions.

WARREN ROBINETT
2600 ADVENTURE, STREET
RACER, BASIC PROGRAMMING;
APPLE ROCKY'S BOOTS

I remember working some very long days -- 12 or even 15 hours -- this was when I was figuring out if I could do Adventure as a video game in 1978 -- and then, totally zoned out mentally, I had to ride my bike home 13 miles from Sunnyvale to Menlo Park. It was usually after midnight -- few cars out as I rode past Moffet Field and through Palo Alto -- but I kinda got a second wind mentally with my legs and heart pumping, and so I was solving the next set of design and coding problems pumping down the road. Sometimes I really ran out of energy about halfway home. There was an all-night store on Middlefield where I could get a big slab of chocolate. Once when blackberries were on the bushes along the backside of Stanford, I was only a mile from home, but I was so hungry, I stopped my bike and rooted through the berry bushes like an old bear, berry juice on my hands and face.



Warren Robinett: Foraging for berries led to gamers foraging for microdots.

STUART ROSS

2600 WINGS; DESIGNED CBS BOOSTER GRIP AND RAM PLUS TECHNOLOGY; REVERSE ENGINEERED 2600

Here are some flashbacks:

1. The CBS CES Snatch n' Grab

In the earliest days of CES and the VCS craze, it was suggested by our superiors that we could earn special brownie points by absconding with cartridges from our rivals' booths. The fact was, that by winter of 1983, the practice of liberating the latest "demo" cartridge for later analysis had gotten out of hand between so many of the rival publishers that most vendors, following CBS' lead, resorted to attaching the cartridges to the show displays using steel cable to ensure they would not disappear.

2. The United Way Campaign at CBS Electronics

In October 1983, when the VCS industry took a turn for the



Stuart Ross: The good ol' CES snatch 'n' (Booster) grab.

worse and even Activision had announced third quarter losses, CBS decided to abandon their efforts toward the cartridge business, cut their losses, and move onto other industries they felt they could trash with equal effort.

So in their usual and typical style, they decided to throw away their investment and value in the team and expertise they had worked so hard to assemble. On the last week of its existence everyone in the CBS Electronics division received a memo inviting us to attend a special meeting on Friday where we would have our annual compulsory viewing of a video tape message from the current chairman, Tom Wyman, in which employees of the corporation were encouraged to sign-off a percentage of our paycheck to be automatically donated to the United Way.

Come Friday, we assembled in the largest conference room as planned, but instead of a videotape we discovered only a collection individuals who could best be described as the 1980's version of Agent Smith from the Matrix. In those days we referred to folks fitting their description simply as "suits." Anytime we met with more than two of these types, it was never good news, so we braced ourselves for the next move...

Following simple minded and misguided corporate policy, they kept us under guard in this room while they locked our offices, secured the facility, and then summarily dismissed the entire team from its duties without warning. A corporate policy designed to prevent us from sabotaging or destroying any materials, files, or equipment they intended to eventually discard into the dumpster. So I suppose you could say, we each donated our entire paycheck to the United Way that day.

Such an insulting treatment to a team that had put in endless hours of dedication, commitment, vision, produced revenue for the company, and helped to stretch an evolving industry that has become nothing short of gigantic today. They could have used that team to attack any of a million opportunities. In fact, the graduating class of CBS Electronics all went onto other successful efforts in the world of gaming and other electronic arts.

OWEN RUBIN

COIN-OP CANNONBALL, POOL SHARK (WITH TOM HOGG), TRIPLE HUNT, SKYDIVER, ORBIT, TUBE CHASE, SPACE DUEL, TUNNEL HUNT, MAJOR HAVOC (WITH MARK CERNY), GOALIE GHOST, SHRIKE AVENGER

This is hard to answer, as there were many great moments. But here are two I still recall fondly to this day:

My most memorable moment was the very first time I got to see people play one of my games on a field test. I created the code for Cannon Ball (my first game) completely by hand (which is another long story available on my web site) and it was put out for testing at a local arcade to see how it would collect. I decided to sneak

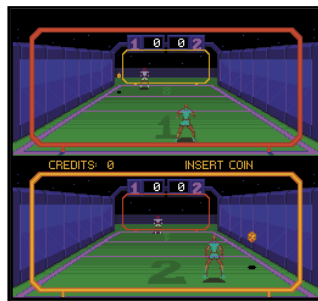
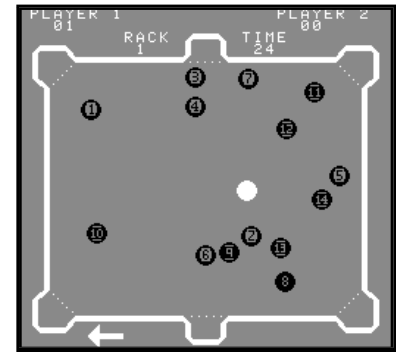
out to the arcade and watch people play. It was not a perfect game (which is why it was there) and we were not allowed to tell people who we were, but when I saw players laughing, joking, and having a good time while playing the game, I knew it was going to be a great job!

Second most memorable time: I worked in a secondary building behind the main Atari building on Division Street in Los Gatos at the time (1976.) In our area our team was developing eight-player Tank, one of the first games to use a microprocessor actually. During lunch, a large group of executives would come into the lab to 'play' the game. Well, not really play, but watch, and this was why: The game did not have computer controlled players when any paid player was playing because management believed that people might walk up and think they were playing a tank when actually the computer was, and then not put in any money. If ANY player put in a coin, ALL other tanks stopped in their home parking place waiting for a coin. However, when no one was playing, the tanks were all controlled by a somewhat random computer algorithm in an attract mode, where they attacked each other. The tanks would keep playing for three minutes

or so, and scores would actually tally on the screen. Now why management did not believe that people walking up to the game during attract would not think they were playing was beyond me, but I digress. ANYWAY, the executives would place bets on the tanks to see which would

'win' in attract play. Lots of money would be dropped down on the glass top with each executive betting on one of the 8 colored tanks. Lots of yelling would take place as they cheered on their tanks. After one such betting session, one of the executives stayed behind, just sitting at the game and watching the tanks. I walked up, sat down and we started to chat. I had no idea who this was, and I gladly answered all sorts of questions, including ones about what I liked about Atari, and also what I did not think worked. We talked for about thirty-five to forty minutes about both the good and bad at Atari. He thanked me for the chat, shook my hand and walked out.

My boss then walked up to me and said "Nice having you work here Owen. Good luck in your next job!" I asked him what that meant, and he told me I was, as he put it, complaining to Nolan Bushnell! Well, I was in a panic for a short while, because I did answer his questions on both the good AND bad. Was I going to be fired for that? Well, as it turns out, Nolan came back the next day, found me in my office, properly introduced himself, and thanked me for my candor with him the day before. He told me that he appreciated that I was 'just myself' with him and did not try so hard to impress him. He told me that I was welcome to find him and chat about Atari, or anything else I wished anytime. And I did, and I considered myself one of his friends for quite some time after that. Lucky for me I did not know who he was at the time. I was also invited to place my



Owen Rubin: Talkin' turkey with Pizza Time Theater founder, Nolan Bushnell.

bets with the executive team during lunch, but I was not that crazy. ☺

BRAD SAVILLE
ATARI MANUFACTURING
MANAGER

In short, it happened while I was the manufacturing manager in charge of building the first 400 and 800 model Atari computers. As part of a manufacturing test I wrote a two-line program that universally caused every computer to freeze, requiring a hard restart. It's an interesting story and one Atari would like to forget.



Brad Saville: Managed to cause every 8-bit computer to crash with just two lines of code.

TIM SKELLY
COIN-OP **STAR HAWK,**
SUNDANCE, WARRIOR,
RIP-OFF, ARMOR ATTACK,
STAR CASTLE, WAR OF THE
WORLDS

A feature I included in my second game "Sundance" was a "how to play" mode that automatically began when a coin was dropped into the machine. "Sundance" had unusual game play, and I wanted players to have time to learn by observation. So, until someone pushed a button to begin play, the game remained in that mode. At that time the Cinematronics production line and offices were all under the same roof. One night, very late, the line was filled with about 200 completed games, turned on for a last burn-in test. I went into the manufacturing area and clicked coin meters until every game was blasting out a loop of video game sound. It was great. The sound was amazing in the echoing production space. And, even better, I was standing in the middle of tangible evidence that I was making video games, new in spirit and play. It never got better than that.

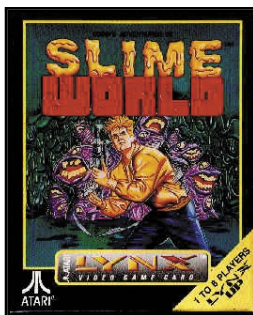


Tim Skelly: Surrounded by the games he created and lovin' it.

JOHN SKRUCH
ATARI PRODUCT MANAGER

Here's a couple...
- **Todd's Adventures in Slime World** for the Lynx was, to my knowledge, the first game for more than four players and the first since **M.U.L.E.** for more than two players. To test the game my Q&A and producer crew took over the executive conference room at Atari HQ. We were having such a great time and made so much noise that Jack Tramiel stormed down from his corner office to see what the heck was going on. He looked in the door, looked us all over, I told him we really WERE working; he smiled and shut the door.

- Atari 1984. The Tramiels just bought Atari from Warner. We are in Las Vegas for the first CES of the new company. It is Midnight, the night before the show opening. Bryan Kerr



John Skruch: Admits that work was FUN!

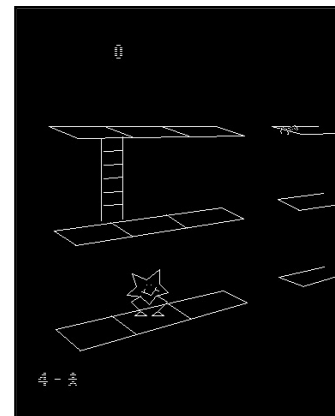
and I are writing our demonstration speech for the show opening on a prototype 130XE and an **AtariWriter** cart on the second floor of our booth in the Las Vegas convention center. We are on a roll. The words are pouring out faster than I can type them. Suddenly, Jamie Copeland, our VP of Marketing over in the next office, trips on the power cord connected to our XE. The entire speech is gone in an instant. My scream could be heard at the MGM Grand, blocks away. We powered back up and started again. We finished the new presentation at 3 AM, went back to the hotel to shower and change, and went back to the booth at 5 AM to rehearse it. It was a success.

TOM SLOPER
GCE GAMETIME WATCHES;
VECTREX **BEDLAM, SPIKE;**
ATARI DIRECTOR OF PRODUCT
DEVELOPMENT

My most memorable moment (the one that comes to mind right now at the moment) (oh wait, I just thought of another) are one of these two:

- The day in 1986, shortly after I'd joined Atari Corp., when I first met Jack Tramiel. We were in the men's room at Atari HQ. He'd asked me about my job. I told him I'd just bought a Nintendo Entertainment System to check out the opposition. He asked me, "did you buy it wholesale?"

- This year, at the DICE Summit, I met Shigeru Miyamoto in person and got his card. Woo-hoo!



Tom Sloper: Bought Nintendo products while working at Atari!

JAY SMITH
FOUNDER OF SMITH ENGINEERING;
VECTREX CREATOR

1981-82: The incredible effort to create the Vectrex. A new game system and twelve games in only ten months. A dedicated team of inventors, engineers, programmers, and designers working non-stop to make it happen. We dropped the flag in September '81, and showed twelve games on a huge display of consoles and games at the highpoint; CES in June '82.



Jay Smith: Created the Vectrex and a dozen games in a year. Incredible.

RICHARD SPITALNY
PRESIDENT, FIRST STAR
SOFTWARE

It's been twenty-one years since I started First Star... so a few things come to mind... take your pick ☺

- Before **Astro Chase** was ever released, I was in discussions with the person who was then the largest individual owner of Commodore stock and he offered us \$25,000 for Astro Chase but only if we accepted the deal that very moment.



Richard Spitalny: Passed on an offer for Astro Chase, offer increased ten-fold.

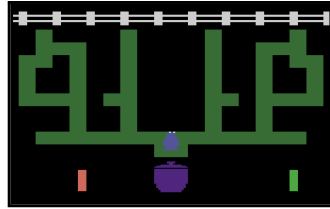
After we decided to 'pass', as we were leaving, the offer jumped to \$250,000. Ultimately that deal did not happen and we ended up licensing only certain rights to a large publisher for that same \$250,000 while still retaining significant rights.

- When Mike Riedel showed my Simulvision™/ Simulplay™ working in **SPY vs. SPY** exactly as I had sketched it out.

- When Boulder Dash and three other First Star games were licensed to Exidy for their Max-a-flex system and became the first home computer games to be licensed into the coin-operated arcades... that was a nice change from the usual progression of games coming from the arcades into the home.

GARY STARK
2600 **COOKIE MONSTER MUNCH**; 5200 **LAST STARFIGHTER**

Probably the day Atari flew myself and a couple of others down to get a preview of The Last Starfighter while it was still under development. There was no soundtrack and most of the effects were absent. We watched it in a real studio theater along side the director. The object was to assess our options for doing a license.



Gary Stark: Watchin' movies, makin' games.

ED TEMPLE
2600 **AMIDAR, FRONTLINE, LOOPING, CABBAGE PATCH KIDS**

Aside from the awe I felt about the real time programming we were doing involving cycle counting on the 2600, I was amazed at the amount of money that was being spent. I attended an Activision CES party since some old colleagues like Rex Bradford and Charlie Heath had gone to work there and was astounded at the craziness of it all. According to estimates I heard, that particular party cost anywhere from half to three-quarters of a million dollars.



Ed Temple: Fondly recalls being on the frontline of that humongous Activision party.

MARK TURMELL
2600 **FAST EDDIE, TURMOIL, GAS HOG**; APPLE II **SNEAKERS**; COIN-OP **SMASH TV, TOTAL CARNAGE, NBA JAM, NFL BLITZ**

There are so many... Here are a few:

- I was invited to the Steve Wozniak wedding reception at his hilltop home in Los Gatos (I'm pretty sure it was in those city limits) in the Summer of 1982. He had a big hot air balloon tethered to the ground and was giving rides. I met tons of people and found out that Steve had played my game Sneakers while laid up in the hospital (for a broken leg from a Cessna crash I think), and really enjoyed it.

- The day I learned how to do a sprite draw on the Apple II. I was digging through some "Space Eggs" code that



Mark Turmell: Billion dollar baby, unprecedented success. BIG money! BIG prizes! I love it!

Nasir Gebelli had written and it all came together for me. The way memory was laid out, the color flipping every other byte problem, the idea of doing multiple versions of your art to accommodate smooth horizontal movement, etc. I realized then, nothing was going to stop me from making a cool game. I created Sneakers in just a few short months from there.

- When I moved to CA. to develop VCS games for Sirius, I had no idea how primitive the VCS actually was. Someone told me there is no screen memory to draw to, and you needed to "track the raster gun" as it moved across and down the screen and then jump in and stuff a few registers. I was dumbfounded, and assured the man there must be screen memory. Once I learned though, it was great to exercise that little box. I developed Fast Eddie in about eight weeks and Turmoil in about six weeks! We were trying to get games done for CES in June 1982, in Chicago where FOX was announcing their entry into the games business at the Playboy Mansion. Of course, I got to go and see the all the great things there. Hef only sent a video taped announcement for the attendees, but fortunately, sent real playmates to juice up the crowd and this eighteen year old. (I finally made it out to the Mansion in L.A. a few years ago, and that is a much better story!)

- Seeing my VCS games hanging on the rack at Toys R Us was a real hoot!

- All of the retail success I'd had through the years pales in comparison to the test of my first arcade game. My first arcade game was put in the arcade for test in 1989. People dropped so many quarters into Smash TV and were so intent on getting beyond the last wave I had set up, I was amazed. The game was buggy and crashed often, yet people would just dig into their pockets and get another quarter. To this day, my largest personal gratification has come from actually seeing the players dump quarters into my games, versus seeing a retail sales chart.

- The wildest success I've ever seen has to be NBA JAM. It went down as the highest earning arcade video game of all-time. It made over one-BILLION dollars in it's first twelve months, one quarter at a time. Jurassic Park came out at the same time and only earned a third of that! One arcade in Chicago actually collected \$2468 in one week! Unprecedented. That game did more damage to the pinball market than we knew at the time. It really shifted operators' attention toward video and away from pinball because of the possibility for huge earnings.



John Van Ryzin: Is Dave G's hero for creating H.E.R.O. Best. 2600 game. Ever.

JOHN VAN RYZIN
2600 **H.E.R.O., COSMIC COMMUTER**

Hard to pick just one so I'm going to list several...

- Attending CES after the video game business crash, and hearing people in the industry laughing at Nintendo's booth, because they were introducing a game system (8 bit NES). As if Nintendo was trying to bring back the hoola-hoop or something.

- My game H.E.R.O. reached the top 10 Billboard charts.

- Listening to Activision executives tell us (after the game business crash) that consumers no longer wanted games like baseball, golf, or driving. Ha! Gee there are lots of those now huh?

- Having my father say to me: "So, you got your engineering degree, you got a good engineering job, and now you are going to quit the job, get paid less, buy your own Apple II computer, and work in someone's basement making video games?" My answer was of course "yes."

- I designed the very first snowboarding game **Heavy Shreddin'** published by Parker Brothers for NES. I had no idea they made a TV ad for it. One day I was watching MTV and I saw an ad for my game.

DAVE WARHOL INTELLIVISION MIND STRIKE, THUNDER CASTLE; NUMEROUS MUSIC AND SOUND PROJECTS

One was while I was at Mattel Electronics. I was working on Mind Strike, which had been a training project I had done but got approval to become a full fledged project. There were usually about 25 games in production at any given time across the various platforms. But during lunch breaks, you could always find one or two cubicles with people, usually playing Biplanes. One day, however, I was returning from lunch, and while I was walking down the hallway, I heard the sound effects from Mind Strike coming out of a cubicle. It turns out the guys were playing it... for fun! This was a very private favorite moment, but it was the first time I had any independent indication that a game I created "passed the fun bar."

The second was around 1986 or 1987; I had been doing music and sound effect design for a variety of Electronic Arts productions. At that time, EA was still holding Developers' Conferences, which would end up with annual award ceremonies. This particular conference probably had 600 or so people at it. When the nominations for Best Audio Design were read, four out of the five nominations were projects I had done! It was probably the proudest moment of recognition I had, and I was pleased my work had found itself so securely in the front running computer game company. However, as fate would have it - the winner was the fifth nomination, Eddie Dombrower's **Earl Weaver Baseball** on the Amiga!

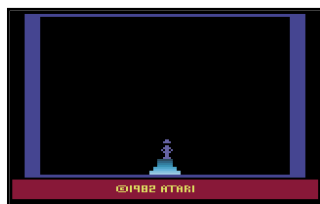
HOWARD SCOTT WARSHAW 2600 RAIDERS OF THE LOST ARK, YARS' REVENGE, E.T.

My most memorable moment would be a day in which I went down to Warner Brothers Studios to visit with Spielberg and talk with him about Raiders of the Lost Ark. I arrived at 9:30am (as scheduled) and was informed that Mr. Spielberg would not be available until 2pm. So I asked them "Can I just walk around the lot until then?" They said "Sure."

So I got to spend a day walking all around Warner Brothers Studios unsupervised, and after that I got to sit down with



Dave Warhol: Passed the fun bar with flying colors.

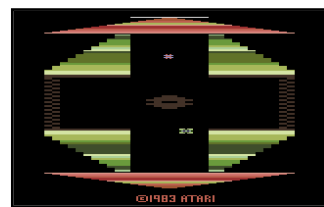


Howard Scott Warshaw: Hanging out with aliens on the Warner Brothers lot.

Steven Spielberg and explain to him why he is an alien (part of an advance team of aliens) and I got quote of the month in Games magazine for that as well. That was a pretty cool moment for me.

STEVE WOITA 2600 TAZ, QUADRUN, ASTERIX, GARFIELD

The one big moment for me was when I saw my first 2600 game, Taz, in Gemco for sale. I walked by and was startled to find Taz on the shelf next to the other games that I'd always admired. I just stood there in amazement. When I took the game off the rack to see if my name was on the back I was shocked to see it there! It was the first Atari made game for the 2600 that had the name(s) of who did the game on the package. I risked my job to get the credits on there, but it was worth it. I couldn't believe that my dream of getting a 2600 game on the shelf had finally come true!



Steve Woita: Taz, Quadrun designer by day, humble Gemco customer by night.

STEVE WOZNIAK COIN-OP BREAKOUT; FOUNDER, APPLE COMPUTERS

I was mainly a hardware person all my life. The software I did was generally low-level, written in assembly language, and implemented in a form and with the same design style that I used for hardware.

I had built my first arcade game after seeing **Pong** in a bowling alley. I just stared at it and realized that I knew enough digital design to combine with my knowledge of TV signals, to make one of my own. Eventually I designed Breakout for Atari. While hanging around the Atari labs for a few days developing Breakout, I heard that they were about to introduce their first game using a microprocessor. I never asked whether the microprocessor was just controlling things like coin acceptors, or was actually implementing the game. But in my head was the idea that a fast microprocessor, programmed in assembly language, could be programmed to play a game.

In this same four-day period I did not sleep. I was dreaming while standing, quite literally. Both Steve Jobs and myself got mononucleosis during this short stint. The game had to be done quickly because Steve Jobs needed the money or needed to get back to something else in Oregon.

While there I saw a game that was going to be in color, or had colored mylar overlays. It was their first eight player car racing game, I believe. I started wondering what it would take to make a color game. I knew the structure of color TV, but wasn't really much of an analog designer. The idea of loading a shift register, say four bits, with a code and spinning it at a multiple of the color subcarrier occurred, as I was always looking for simple tricks. What would come out of this register would be signals that had properties 'similar' to color TV signals of different hue (phase difference) and luminosity. I could see that I'd have sixteen different



Steve Wozniak: Broke out, formed Apple Computers.

patterns generating sixteen waveforms that would all look like NTSC color signals, but all different. There was no way to know if this would even work, but I don't mind playing with indeterminate things and maybes. A couple of years later, with the Apple][.

So a couple of years later I was now building the Apple][. The color idea worked and brought a new sparkle and attraction to low-cost computers. The toughest part of my Apple I and Apple][designs was writing a BASIC, as I had never taken a class or studied such subjects. I had thought about this a lot in my early life however, and was able to code a good BASIC interpreter, despite never having even programmed in BASIC before.

So I had a prototype with color, and I could type in a hexadecimal computer program to draw some colored lines on the screen. It was logical to add commands to my BASIC to let a BASIC programmer do the same thing, at the slower speed of the interpreter. With this I created many impressive demos.

One week I got the urge to create my first game that was a program instead of hardware. I intended to write it in assembly language. BASIC would simply be too slow. But I like to achieve more than people think is possible, with very few resources or limited resources. I started wondering to myself whether an animated game could be written in BASIC, in effect by almost anyone. I didn't know. There was only one way to find out.

I searched chip catalogs to find a way to add four paddles with a single chip, using the Apple][microprocessor to measure the paddle position. I added a transistor amplifier for a one-bit audio output, otherwise known as a beeper or buzzer. Finally I had the hardware ready and I sat down to try a game in BASIC. I had chosen to implement *Breakout* since I was quite familiar with it, having designed the hardware version. I wrote a couple of BASIC loops, with my own BASIC commands for plotting lo-res squares and drawing lines of color, to create columns of bricks. I made small changes to these few BASIC statements to play with the size of the bricks, their position on the screen and their color. I could go through dozens of color variations in minutes. I implemented a paddle and ball and things like scores, and experimented with their characteristics. I had a good game actually working in half an hour.

I phoned Steve Jobs and got him to come over and see it. I was actually quivering as I excitedly explained how I'd implemented *Breakout* so quickly, along with trying variations that would have taken me years to try in hardware. I was shaking as I told him that games would never be the same now that they were software. That moment was so emotional to me that I still shake when I remember it.

ROB ZDYBEL
2600 REALSPORTS FOOTBALL,
STAR TREK; 5200 OS, MISSILE
COMMAND; LYNX WARBIRDS

First some background thoughts...

Nowadays people that want to do good games



Rob Zdybel: Came here to chew bubblegum, design games, and kick ass.

are plagued by 'suits' that have no clue. Back in the day, game programmers had real clout and created entertaining, interesting designs because no one could make them stop. But oh how they tried. I was working on 800 Missile Command when they introduced me to my first "producer". Fresh from a job marketing Sara Lee cakes and full of suggestions for me. I tolerated his weekly visits to check up and pitch his latest ideas (straight into the circular file). But as the project moved toward completion and became more hectic, his visits became more frequent. His suggestions more inane. Finally he was coming by daily and I just didn't have the time for it. I said: "Look, I've got a lot of work to do and I really can't have you coming around here every day and bothering me." "I'm just as important to this project as you are!" he bristled. "Buddy", I said, "If I break a little finger tomorrow and can't type, this project is not going to complete on time. On the other hand, if you fall down a flight of stairs and break your neck, things will speed up 'cause you won't be bugging me." This infuriated him so much he went to my boss to complain. The engineering VP at that time was George Simcock. George was so impressed that he took immediate action - he had the gentleman banned from the engineering building for the duration of the project.

I used to routinely entertain VPs of marketing in my office. Generally they were well behaved. Those that were rude or pushy however invariably got the same treatment: I would rise from the seat in front of the work station. Make a show of dusting it off. And present it to them. Saying: "Here's a chair. There's the workstation. If you want it to be that way, you just go ahead and code it up." That always got rid of them in a hot hurry. They rarely caused trouble again. One that complained got a nasty stop-bothering-the-engineers-they-actually-work-you-know lecture and quit shortly thereafter.

Anyway the episode that I wanted to tell about took place when Leonard Tramiel was VP of Engineering. I had just had a brainstorm about how to handle a multiplayer flying game on the new (at the time) Atari Lynx. Naturally I was anxious to see my design implemented and had already started work on it. Unfortunately, the VP of Marketing/Games didn't see it the same way. He felt that I should be doing a ripoff of an arcade game. A single-player side-scroller platformer. The thought of doing a plodding side-scroller when I had a vision in my head was more than I could bear. Fortunately, Leonard was on my side. As we sat with the marketing guy and he tried to insist that I should do this cheesy rip-off he kept using adjectives like "trivial" and "no brainer". And implying that after I rushed out this hack I might be allowed to do something interesting again. Finally Leonard said: "You know, if this is such a no-brainer, I think you should do it." "There", cackled the VP, "you see, even your boss thinks you should do it." "No", replied Leonard, "I think *you* should do it, if it's so easy. And Rob's gonna do the flying game."

And that was how Warbirds for the Lynx was born. Thanks LT, you're not as bad as they make you out to be, eh?

Super-Deluxe BONUS Edition of

RAMPAGE

Featuring John Hardie



A Bit More About 52: 50, II

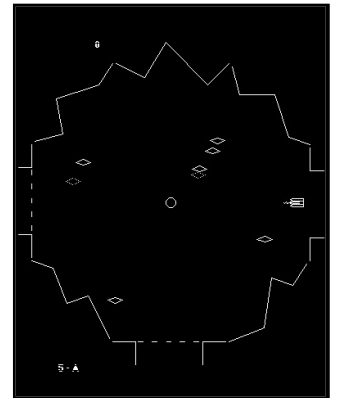
Since we're playing the 52: 50, II thing for all it's worth, we thought it would only be fair to give you 52 Most Memorable Moments. How's that for bang for your buck?!? Who loves ya baby? So without further delay, here are your two BONUS moments...

BILL HAWKINS

VECTREX BEDLAM, COSMIC CHASM, RIP-OFF, STAR CASTLE, WEB WARS, 3-D CRAZY COASTER, 3-D MINESTORM; ATARI 7800 RAMPAGE

The first was the release of *Tron* - the entire programming staff took the day off and went to Westwood to see a matinee opening day. Not that it was the best film ever, but hey, the hero was a video game programmer!

Another memorable moment - just to set the stage, we were developing the Vectrex and had a cross-licensing agreement with Cinematronics. I ported over Rip-Off and Star Castle to the Vectrex, and with Patrick King developed Cosmic Chasm for the Vectrex. My memorable moment was when I found out that Cinematronics was going to take Cosmic Chasm and make a coin-op version. Of course seeing one in the arcade was also memorable.



Bill Hawkins: turning the tables on arcade to home translations.

MARK KLEIN

2600 SUBTERRANEA, PICK-UP, ENTITY; PC JR. TOUCHDOWN FOOTBALL; DIGITAL PICTURES FOUNDER

One of my most memorable moments from the classic gaming era, was when Imagic was showing a game I programmed, Touchdown Football for the IBM PCjr, at the Consumer Electronics Show. Nolan Bushnell, the founder of Atari, played it for ten minutes and with a big smile on his face stated, "This is great!"



Mark Klein: Wowing Nolan Bushnell at CES.

And Finally... THANKS again, to everyone.



Once again, I'd like to send a very enthusiastic THANK YOU to Big John and to all of the Alumni who volunteered to share some of their favorite memories. Without their time and dedication to this issue, we never could have put it all together.

Oh, and John - consider this little blurb fair warning to get crackin' on the 100 Most Memorable Moments for issue #100. It's never too early... ☺

