



The Video Game [R]evolution

by [Sarah Elizabeth Burcham](#)

There's a place in downtown [St. Louis](#) a couple of blocks north of the arch. A place where a quarter's value is synonymous with the exciting ka-chink made when it drops into a video game. (Okay, so maybe tokens have replaced the quarters, but they make excellent souvenirs.) Dimly lit, the whirring and blasting sounds, coupled with the heart-warming (though sometimes frustrating) tune of *Pac-Man*, are tell-tale signs that you've stumbled into the [National Coin-Op and Video Game Museum](#). With approximately seventy machines, the museum emphasizes video arcade games, though the selection of pinball games is also satisfying.

The back room of the museum is a historical jaunt to the dawning of the arcade era. One wall of pinball games pays homage the technology's mechanical predecessors, while in another corner stand two forerunners of more modern video games: *Computer Space* (1971) and *Pong* (1972) (you can play a Java version of Pong at <http://www.dsl.nl/~marco/classes/pong.html>). *Computer Space* was developed by soon-to-be-founder of [Atari](#) Nolan Bushnell. He took his inspiration from *Space War*, a mainframe computer game designed at MIT during the 1960s. *Space War* soon evolved away from its original design as a graphical demo of the DEC PDP-1 mainframe's capabilities. What had started out as an academic demonstration soon became an addiction as over-zealous programmers integrated features such as astronomically correct backgrounds and stellar gravity wells into the battle game. (For a similar story, see the *XPilot* story in this issue!). After extensive simplification of *Space War*'s elaborate design, Bushnell presented the world with its first video arcade game, *Computer Space*, in 1971; however, the revised game was still too difficult for the general public.

Undeterred, Bushnell tried again with an even simpler game resembling ping-pong. The public loved the new game, *Pong*, to such an extent that when he put it into a neighborhood bar, patrons jammed so many coins into the slot that the game temporarily stopped working. Sadly, the *Computer Space* and *Pong* at the museum are for display only. But never fear, there are plenty of other games to attract the gamer's itching hands.

The success of *Pong* was just the beginning of the coin-operated video arcade fascination. The walls of the dimly lit museum are lined with a representative selection of the ensuing flood of hit arcade games from the late 70s and early 80s: *Space Invaders*, *Asteroids*, *Pac-Man*, *Ms. Pac-Man*, *Donkey Kong*, *Dig-Dug*, *Frogger*, *Centipede*... These were just some of the major moneymakers. Above each game, a plaque tells a little about its place in history. One such plaque notes that *Asteroids* earned as much in one year as *Gone With The Wind* had in 4 decades. Also of interest is a special attraction for those true chipheads: a transparent *Ms. Pac-Man* machine allows you to view the inside components! These and other video games remained almost exclusively in the domain of the coin-op machines until the the affordability of microprocessor technology expanded the realm of video games from the bar room to the living room.



The home entertainment industry lagged behind the phenomenal growth of pay-for-play video game industry of the 1970's until 1978 when the Atari 2600 and Odyssey 2 were premiered. These extremely popular cartridge-based systems featured versions of the predominately uncopyrighted pay-for-play games. But, anyone expecting the Atari 2600 *Pac-Man* experience to live up to arcade expectations was, like me, probably more than slightly disappointed. Criticisms about the apparent quality gap between arcade and home entertainment games aside, the cartridge based versions did do arcade game enthusiasts a great service. An avalanche of software for the Atari 2600 hit the market, ensuring the continued existence of classic video arcade games that might have otherwise disappeared. Though most 2600s have long ago been forsaken to yard sales or Goodwill in favor of the latest and greatest N-bit home entertainment

systems, 2600 emulators are readily available off of the Internet. Most classic arcade games can be found in some incarnation for the home gaming systems and can be relived with the aid of an emulator for your operating system. If you're looking for an emulator, you might start at: <http://eliza.netaxis.com/~petebuilt/emulate.html>

Home gaming would change directions in the early 1980s as the limelight shifted to the personal computer. The deteriorating quality in cartridge-based systems led to a nosedive crash of the video game industry in 1984. Cartridge-based systems would not regain popularity until the late 1980s, when [Nintendo Ltd.](#) and rival [Sega of America](#) premiered their 8-bit gaming systems. Successful multilevel platform game series like *Mario* and *Sonic the Hedgehog* clinched a strong contingent of gaming supporters. With today's powerful equivalents (the [Sony Playstation](#) and [Nintendo 64](#)), home gaming is bringing in well-rendered three-dimensional worlds. Throughout the advancement of the home entertainment gaming industry, the arcades have been the testing arenas for new games and technologies. A game's success in the arcade determines its livelihood within the home.

But there's something lacking in the home gaming experience. The ease of a reset or new game button doesn't impart the urgency and importance that a *last* token does. Hardware tweaked machines emblazoned with colorful advertisements beckon with the enticing incentive of getting to put your initials into the high scores for all to see. The Video Game Museum provides this arcade experience, with the classic games from the golden age of arcade video gaming.

Museum contact information

Hours	10 am to 10 pm Monday - Saturday 12 pm to 6 pm Sunday
Location	801 North Second Street St. Louis, MO 63012
Telephone	(314)621-2900

References

National Coin-Op And Video Game Museum Pages: <http://www.coinop.org/sharkie/coinop/>

Some emulators available online: <http://www.netaxis.com/~petebuilt/videogames/emulate.html>

Classic Home Video Game Museum: <http://www.cs.unc.edu/~brownde/museum/>

Inside Electronic Game Design

by Arnie Katz with Laurie Yates

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This has an excellent history of gaming.

And, of course, the Coin-Op and Video Game Museum itself.