By 1980, teens too old for traditional toys could find their play time outside the home thanks to the rise of video games and arcades. Every mall had an arcade filled with pinballs and video games, but they also popped up in standalone buildings, usually converted from closed businesses like fast-food restaurants. It was a sudden turn to legitimacy for a pastime that had long been associated with delinquency.

Pinball machines evolved from many early games including bagatelle- and pachinko-style ball games. By the 1930s, they had taken on much of the features and form known today when two major companies formed. David Gottlieb’s Baffle Ball ushered him into the pinball field and established D. Gottlieb & Company. His success led one of his distributors, Ray Moloney, to found Bally in 1932.

Over the next several decades, major changes in play and technology transformed the game. Two additions—the bumper in the late 1930s and the flipper in the late 1940s—made pinball the game we recognize today, and both have become synonymous with pinball. Bumpers debuted on a 1937 game called BUMPER and electric flippers made their debut on the Gottlieb machine Humpty Dumpty in 1947. By the late ’70s, pinball games were transitioning from electromechanical technology to circuit boards, leading some pinball producers to halt production rather than make the switch. A few companies that would later become famous for their video game technology, like Atari and Sega, used their innovations to likewise produce electronic pinball games.

With the advent of video arcade games in the late 1970s, pinball went out of fashion for a time, replaced in popularity by video games such as Donkey Kong and Space Invaders. The slump in pinball play forced manufacturers to innovate and update pinball machines. By incorporating video game technology and sound, pinball machines made a comeback in the 1990s.

Local pinball enthusiasts are bringing the game to the next generation, and Pittsburgh is at the center of this phenomenon. History Center staff worked with the Pittsburgh-based Replay Foundation to recreate a 1982 arcade of video games and pinball machines. Replay Foundation—which generously loaned all games in the arcade—promotes the preservation, restoration, and enjoyment of pinball technology, with an emphasis on the player experience. Under the brand name PAPA (Professional & Amateur Pinball Association), Replay Foundation operates and supports pinball competitions worldwide. Learn more at replayfoundation.org.

Here is a round-up of games at the Toys of the ’50s, ’60s and ’70s exhibition, but please visit the History Center to play them yourself:

**Gondolier, Gottlieb, 1958.**

Gondolier has wooden side-rails, which lends itself to more of a nudge-style game, requiring more “bumping” of the machine as opposed to using flipper skills. In 1960, Gottlieb began transitioning from wood to metal rails. Wayne Neyens, the game designer, made many of Gottlieb’s machines from this period. Roy Parker, the artist, worked for Advertising Posters in Chicago and designed all of Gottlieb’s machines of this era until his death in 1966.

All photos by Michael Dubois.
**Slick Chick, Gottlieb, 1963**
Called “one of the finest, if not the absolute finest, flipper skill game ever made” by pinball historian Dick Bueschel, Slick Chick is a well-played and -loved game. At a time when Playboy was expanding its club empire, Gottlieb tasked its game designer Wayne Neyens with producing a game inspired by Playboy without using the name.

**Dodge City, Gottlieb, 1965**
Another classic Gottlieb game of the 1960s, it features a cowboy on the backglass who randomly dances. Ed Krynski was the game designer with artwork by Roy Parker, who designed 290 Gottlieb machines; his artwork makes these machines easily recognizable and highly collectible.

**Four Million B.C., Bally, 1971**
Many pinball enthusiasts point to this game as being ahead of its time in the 1970s. It has a pair of flippers, called zipper flippers, that join together so the ball cannot pass between them. Bally designer Ted Zale created the game with artwork by Dick White.

**Captain Fantastic, Bally, 1976**
Featuring Elton John as his character in the rock opera movie *Tommy*, this pinball game became an iconic machine of the 1970s. Elton John had machines sent to all of his homes and his mother’s house. Some of its features include an in-line flipper on the left side, which means an additional flipper right behind the standard flipper. A close look at the backglass art reveals some inappropriate activity cleverly drawn in by artist Dave Christensen that was later covered, somewhat ineffectively, by stars.
**Xenon, Bally, 1980**
Xenon is a great example of pinball’s evolution into solid state electronics. Sound and music were a defining feature of this transition. Xenon is notable for being the first pinball machine to feature a female voice and it was the first talking machine produced by Bally. Suzanne Ciani, the game’s music composer, also provided the voice. Xenon is also famous for its artwork done by Paul Faris.

**Space Invaders, Midway, 1978**
This groundbreaking game is credited with bringing video technology to the masses and influencing nearly every shooting game to follow. Its most interesting—and frustrating—trait was the ability to only shoot when the last blast had disappeared. The pixelated alien is now a pop culture icon.

**Asteroid, Atari, 1979**
Released by Atari, Asteroid was hugely popular in the golden age of arcade games, and was welcomed for having multi-shot capability. Anxious players were known to line up their quarters along the screen bottom to hold their place in line, spawning a plastic coin holder accessory.

**Pac-Man, Midway, 1980**
Pac Man brought color graphics and humor to a broad audience, making it the most popular game theme of all time. Pac Man not only spawned sequels, it also produced the first popular video game mascot, inspired a Saturday morning cartoon, and led to a line of merchandise from t-shirts to lunchboxes.

**Donkey Kong, Nintendo, 1981**
Donkey Kong is one of the first platform games, meaning a game where a character is navigated through a world and jumps over obstacles and gaps. At the time the big ape was the focus, but soon the little jumping man would gain his own fame as Mario, the beloved Nintendo character featured in endless future games.

**Ms. Pac-Man, Midway, 1982**
Released two years after Pac-Man and with improved game play, Ms. Pac-Man became the best-selling arcade game produced by an American company.

**Centipede, Atari, 1982**
Similar to the earlier-released Space Invaders, Centipede was also a shooting game produced by Atari. It was developed by programmers Ed Logg and Dona Bailey—a female programmer was a rarity in the field at the time and Bailey hoped to interest more women in playing video games.
Donkey Kong, 1981.

Pac Man, 1980.

Ms. Pac-Man, 1982.

Centipede, 1982.