CHAPTER 3

THE PLAY CONTROL OF POWER FANTASIES: NINTENDO, SUPER MARIO AND SHIGERU MIYAMOTO

Genius is a word that should be kept behind glass, reserved for the truly exceptional. But no one who's ever been entranced by one of Shigeru Miyamoto's games can question his brilliance. Constantly imitated, but never equaled, he is without question the most inspirational video game designer in the world.

— "Why Are Shigeru Miyamoto's Games So Damn Good?" *Next Generation*, February 1995

The development of the Japanese video game made a quantum leap the day that Shigeru Miyamoto began to design his first one. Born in 1953 in the town of Sonebe, on the outskirts of Kyoto, where his family had lived for three generations, young Shigeru's wild imagination was stimulated by comics and animation. The Miyamoto family had no car or television, but every few months they would take a train into the city to shop and see movies. Miyamoto especially remembers *Peter Pan* and *Snow White*. At home, he "lived in books, and he drew and painted and made elaborate puppets, which he presented in fanciful shows."[1]

"When I was a little boy, I liked to play pretend," said Miyamoto in a 1995 interview. "It was a lot like a computer simulation. When we played with friends, some games ended with a winner and a loser, and a friend played as a judge. When you have a friend play the judge, he can just change the rules as he likes. When I play through the computer, the computer judges very correctly… I found that difference interesting."[2]

In 1964, when Miyamoto was 11, his father Hideo brought home a television. Shigeru became "obsessed with animation" and "hooked on Japanese superheroes."[3] His favorites were some of the first animated shows on the NHK broadcasting network: *Chirorin-mura to kurumi no ki* ("Chirorin Village and the Walnut Tree") and *Hyokkori Hyoutan-jima* ("Accidental Gourd Island"). In middle school, his "eyes opened to manga" and he began to devour the popular artists of the day. "I liked gag manga, story manga—as long as it was manga, I liked it."[4]

Miyamoto loved to explore the countryside, "investigating hillsides and creek beds and small canyons," climbing through caves, wandering without a map and marveling at his discoveries[5]. He would take paper and pencils with him and draw the places he found. He "took cartoon-making seriously," inventing lives and personalities for his original characters and then making them into flipbooks. In high school he started a manga club.[6]

Miyamoto entered Kanazawa Municipal College of Industrial Arts and Crafts in 1970. He graduated five years later (he skipped class often)[7] with a degree in industrial design[8]. He didn't feel like he could cut it as a professional manga artist, which is why he decided to go to college. But by majoring in industrial design, he was able to continue drawing.[9] At school, he played the earliest video games and developed eclectic musical interests: The Nitty Gritty Dirt Band, Doc Watson,[10] The Beatles. He taught himself to play bluegrass on the guitar and banjo, and most of all he loved designing toys. [11]

AN INTERESTING COMPANY

Miyamoto envisioned himself perhaps designing telephones or other consumer goods. He wanted to work somewhere where he could "make a hit product."[12] But he knew he wasn't cut out for the rigid corporate world of Japan, and had no idea where to go. His father called an old family friend: Hiroshi Yamauchi, the president of Kyoto-based Nintendo Co., Ltd. As Miyamoto recalled, "At that time, Nintendo made not only amusement machines but also kiddie-cars and batting machines. I thought, what an interesting company. They'll let me do what I want to."[13]

Nintendo had been an "interesting company" long before Shigeru Miyamoto's father was born. Founded in 1889, the 22nd year of the Meiji era, by Kyoto businessman Fusajiro Yamauchi as Nintendo Koppai, the company was originally a small operation devoted to the manufacture of *hanafuda*, Japanese playing cards. *Hanafuda*, which Nintendo still manufactures today*, are small cards about the size of a cracker (or a Game Boy Advance cartridge) with beautiful seasonal imagery—nightingales, cherry blossoms. The forty-eight cards in the deck are printed on thick, high quality cardboard, so the deck is more than twice as tall as a standard deck of *toranpu* (Western playing cards) and about three times as expensive.

* Although they represent an ever-shrinking side business, Nintendo's playing cards are still the high-quality gold standard in Japan. The hanafuda package is now made of strong plastic and features both kanji characters and the now-familiar English logo, but the designs of the cards and package are virtually identical. Nintendo is still so well-known as a card maker that the recent Xbox vs. PlayStation vs. GameCube console war is called "Bill vs. Aibo vs. Hanafuda-ya."

Nintendo's Daitoryou, or "President", brand of hanafuda featured a picture of Napoleon on the box.

The oldest surviving Nintendo building, on Rokujou in Kyoto (left) and detail of signs (top).

The original Nintendo building, all of two stories high, stands near the intersection of Rokujou (6th St.) and Kiyamachi, near the Kamogawa River in Kyoto. The area is only a few minutes south of the hustle and bustle of downtown Kyoto, but it is drowsy today with a few small stores still open for business, a few nondescript bars and restaurants, and a virtually empty, nearly abandoned concrete building with wrought iron signs on the front that read, right-to-left in the pre-war style, *Yamauchi Nintendo Playing Cards*. Kiyamachi was and is a seedy part of town. In 1899 it was filled with gambling dens and brothels; today you find pachinko halls and "massage parlors."

Nintendo fit perfectly with this atmosphere, as *hanafuda* were used for very serious gambling. Yamauchi's cards, hand-pressed from the bark of mulberry trees, were unmatched. The high-rolling gamblers demanded the quality Nintendo cards, and Nintendo's *Daitoryou* (President) brand quickly became the most popular cards in Kyoto and neighboring Osaka. Profits surged when the *yakuza*, Japan's equivalent of the Mafia, operated high-stakes games of *hanafuda* in casino-like parlors. Nintendo profited handsomely, because professional players would begin each game with a fresh deck, discarding the old one."[14]

In 1907, Yamauchi began the manufacture of toranpu, making Nintendo and Nintendo became the first Japanese company to do so. The company

grew and grew, but remained strictly in the playing-card business until 1949, when Hiroshi Yamauchi, Fusajiro's great-grandson, became the third president of Nintendo at all of twenty-one years old. Yamauchi fired every manager left over from his father's and grandfather's days. He had his cousin fired. He wanted it clear that he was the one in charge. He moved the plant and he modernized techniques. In 1953 Nintendo became the first company in Japan to manufacture modern plastic-coated playing cards. In 1959 he licensed Disney characters and put them on the backs of his cards. Sales skyrocketed.[15]

Yamauchi took Nintendo public, listing his family's company on the Osaka Stock Exchange. He branched off new products and services: instant rice, a taxi company, love hotels that rented rooms by the hour. But by 1969 Yamauchi was unhappy with the performance of these ventures, and decided to play to Nintendo's strength, namely its reputation in the toys and games business. Two Kyoto natives were the heart and soul of his new Games department: Hiroshi Imanishi, who was the company's general affairs manager, and Gunpei Yokoi, an electronics graduate who was working as the maintenance man on the *hanafuda* printers.

Yokoi's inventions defined the new Games division and became the popular Ultra series of toys. The series included a plastic latticework hand that extended and grasped, a pitching machine that lobbed soft baseballs for safe indoor use, and a toy periscope. Nintendo's first major hit, however, was the Beam Gun series, created through a partnership with Sharp*, who was working with solar cell technology. Yokoi worked with a Sharp employee named Masayuki Uemura to develop a toy gun that "shot" a thin beam of light. If the player hit the tiny solar-cell target, it would trigger an electrical circuit and, for example, a plastic "beer bottle" held together by magnets would break into pieces. The two men worked well together, and Yokoi hired Uemura away from his sales position at Sharp.

* This partnership continues to this day. Sharp designed and sold the Twin Famicom in the 1980s, a system that combined Nintendo's Famicom with the optional Disk System add-on; sold television sets with Famicom and Super Famicom systems built inside; and most recently in 2003 supplied the new LCD screens for Nintendo's handheld Game Boy Advance SP systems.

The Beam Gun series sold millions of units, which convinced Yamauchi and Yokoi to build the concept into a grander-scale operation. The bowling fad that took over Japan in the 1960's had died out, and Nintendo swooped in to convert old closed-down bowling alleys into Laser Clay Ranges. Players stood at one end of the alley holding large rifles with Beam Gun technology inside, firing at "clay pigeons" projected onto screens at the far end, where the bowling pins used to sit. The ranges were a big hit, but soon the economy slipped and the fad ended shortly afterward.*

* Irony rating: five stars. The first bowling center for the Japanese public (the only other bowling alleys in Japan were for American military use) was an early project of a company called Service Games—or *Sega* for short.

Another invention of Yokoi's was marketed in 1973 as Ele-Conga. Capitalizing on the popularity of Latin music in Japan at that time, the Ele-Conga was really a high-quality drum synthesizer that let the user play electronic drum beats by pushing buttons. An optional attachment (shown right) used paper "records" with holes punched in them to play drum beats automatically.

Regardless, Nintendo was an established name in high-tech entertainment, with a brilliant staff that knew how to design and market hit products. Running with this image, Yamauchi moved to get in early on a growing trend: video games that were played on home television sets. In 1977, he licensed Magnavox's Odyssey video game hardware for sale in Japan. The systems that Nintendo released were not based on the original 1972 Odyssey system; they were based on the more refined hardware that Magnavox had developed in the wake of Pong's popularity. Atari's *Home Pong* was the runaway hit Christmas present of 1975, and by 1976 seventy-five companies, including Magnavox, had announced imitation versions.[16] A Japanese company called Epoch had already broken into the market with *TV Tennis*, a black-and-white tennis machine that was so primitive it could not even keep score on screen; players had to click plastic dials on the machine's front. At Yamauchi's insistence, Nintendo forged ahead technologically and licensed Magnavox's newer color Odyssey systems, releasing the Color TV Game 6 in 1977.

In sharp stylistic contrast to the futuristic, black- or metal-colored machines that other Japanese companies released, the CTVG6 was bright orange and had rounded edges. It had a toy-like design sensibility about it.

Inside the box, as the name implied, it featured full color graphics and six variations on the tennis game. At 9,800 yen, it was a pricey plaything, but the risk paid off. It was a smash hit, and a higher-end sequel released that year, the Color TV Game 15, which featured a few improvements: fifteen games, of course, and removable controllers.

CTVG6, like every other Japanese TV-tennis game at the time, had plastic dials that were permanently attached to the machine's face. These were used to move the paddles onscreen. But the CTVG15's controllers were attached to the back of the system by long wires, so players could sit comfortably away from each other and from the TV. When the system was not in use, the controllers sat in indentations on the face of the machine. Sleek and stylish, the CTVG15 was just as popular as its little brother. Nintendo sold over one million units between the two systems, and was beginning to carve out a nice place in the budding video game industry.

And then, Shigeru Miyamoto walked into Hiroshi Yamauchi's office for a job interview.

THE EARLY PERIOD

He was 24 years old with a goofy, freckled face and shaggy hair. He brought a recent invention of his to show Yamauchi. It was a clothes hanger designed for children, with soft edges and colorful animal designs—an elephant, a bird, a chicken. Miyamoto was hired as Nintendo's first staff artist[17] and assigned to the planning department. "I was hired as an apprentice planner," he recalled in a later interview, "but basically, I could do design, so I ended up doing a lot of design work."[18]

It is July 14, 2003, and we are sitting in an austere conference room on the first floor of Nintendo's new headquarters south of Kyoto station. This new compound is pure white and shaped almost like a cube. It is clearly visi-

ble from the roof of Kyoto Station, especially if you can read *kanji* characters that spell out *nin-ten-dou*; the company name means, approximately, "the place where luck is left in heaven's hands," appropriate for a company that got its start making cards used in gambling halls.

The meeting room's walls are as white as the building's exterior. Eight leather chairs sit low to the floor, around a long table. A gigantic widescreen TV and DVD player occupy one corner of the otherwise sparsely decorated room. Two young women, dressed identically in GameCube-blue, place iced green tea in front of us. I ask Shigeru Miyamoto what his very first job at Nintendo was, and he thinks silently for a long while before answering. It was a long time ago, after all. Finally, he speaks:

Nintendo's new headquarters, a shimmering white cubic structure, dominates the southern Kyoto skyline.

Miyamoto at the 2004 Electronic Entertainment Expo.

"The first thing they had me do, the first project I worked on, was to do the outer housing designs for two dedicated home game machines we were making, called Racing 112 and *Burokku-kuzushi*. The designers of the actual game hardware would tell me about the insides of the machine, and then from that I would design the outside."[19] This was actually quite close to what Miyamoto had originally envisioned, except that instead of designing comfortable telephones, it was video game consoles and controllers.

Immediately, Miyamoto knew that he wanted to improve on the designs of the CTVG6 and 15. "They were bad," he said, uncomfortable and difficult to understand. "I tried to make my designs more fun for the player to interface with. For example, with Blockbuster, I designed the console so you could play it either right-handed or left-handed. For Racing 112, I thought it was important that there be a gear shift handle, because it's fun to shift gears with a controller like that."

Comparing Miyamoto's designs to the earlier games, more differences emerge. *Blockbuster*'s casing was even more rounded and toy-like than those of the previous consoles*, and Racing 112 featured a large, comfortable steering wheel controller for the one-player mode *and* two removable paddle controllers for the two-player version.

* It was also the first Nintendo game console to feature the Nintendo logo displayed prominently across the front of the machine. Nintendo had obviously built up a positive brand identity in the video game business by this time.

In fact, Racing 112 contained 112 possible variations on the game; switches on the front of the machine let the player control the speed and number of cars, the weave of the road, guardrails, slipperiness, and so on. These switches were typical of this type of console, but Miyamoto added picture labels for each switch in place of the text-only labels on the first two games. This was his design training coming into play; icon-based labels help users instantly comprehend the device's functions without having to read the instruction book or interpret cryptically short text labels.

This sort of design sense became so important to Miyamoto's creations at Nintendo that he eventually considered it his main job. "It's *ningen kougaku*," he says—"human engineering," the art and science of creating a smooth, natural interface between the machine and the user. From the first, Miyamoto's designs reflected this philosophy. Although the actual computer programs in Nintendo's machines were nearly identical to the many other video game consoles, the controller design set Nintendo's machines apart.

When Miyamoto was finally allowed to design the game programs themselves, things really took off for Nintendo.

But by 1978, he was still an assistant in the planning department, and so his next few jobs were relatively mundane. Having made a name in the home video game business, Nintendo turned to the emerging arcade-game market. This was more or less motivated by the huge success of *Space Invaders*. With demand for *Space Invaders* climbing higher and higher, and more potential spaces for machines than machines to fill them, numerous companies, Nintendo included, turned out *Invaders* clones by the roomful. Nintendo's entry was called *Space Fever*, and Miyamoto drew the in-game characters. Nintendo apparently liked his work; he went on to draw the characters for *Sheriff* (1979) and *Space Firebird* (1980), and he designed the cabinet and marquee artwork for *Sheriff* and another game called *Radarscope*.[20]

Nintendo was going through a few major changes during these years. Yamauchi, looking for a more innovative product, asked Gunpei Yokoi to develop a unique way of playing video games.* Yokoi came up with the *Game and Watch* series, tiny hand-held games slightly larger than a credit card with screens that used liquid-crystal displays (LCDs). Other portable games had been released by companies like Epoch, but these mostly used light-emitting diode (LED) technology. LEDs were tiny red lights that could be turned on or off, so the "graphics" of these early games were, well, tiny red lights. LCD technology allowed screens to display relatively detailed cartoon pictures, although these graphics could only blink on or off to create the illusion of movement. Nintendo's designers were so adept, however, that the onscreen action looked quite good. The *Game and Watch* series became incredibly popular.†

* Yamauchi essentially stopped development of the home game consoles, but Nintendo released one more the same year as the Game and Watch. It was based on an arcade game that played a monochrome version of the game *go* (known as Othello in the US), with the white and black chips replaced by crosses and squares. The graphics of the arcade and home versions were extremely simplistic for 1980 (by this time, color games were the norm) but the rules of *go* are so complicated that the computer processors inside the machine had to be very powerful. The home version, called simply "Computer TV Game," cost a whopping ¥50,000 in 1980 and is an extremely rare collector's item today.

† The *Game and Watch* games were very simplistic contests, but a mascot character began to emerge in even the earliest ones: a stick figure with a Charlie-Brown-style round head and big nose called Mr. Game and Watch. The character is so recognized in Japan even today that a 2001 Nintendo GameCube title, *Dai-Rantou Smash Brothers DX* (*Super Smash Bros. Melee* in the US) featured Mr. Game and Watch as a hidden character. His fighting techniques were made up of the different actions from the early *Game and Watch* games, like *Fireman* and *Chef*.

(cont.)

Another major change for Nintendo at this time was the establishment of an American branch. Yamauchi tapped his son-in-law, Minoru Arakawa, to head up the division in New York, with the sole initial intent of distributing Nintendo arcade games in the US. The first few games met with failure. The black-and-white *Sheriff* and *Space* Fever—imitation versions of *Western Gun* and *Space Invaders*, respectively—were old news by 1980. *Radarscope* also was very similar to all the other spaceship-shooting games in the American and Japanese arcades of 1980. But despite *Radarscope*'s unoriginal gameplay ("like *Galaxian* from Namco but more sophisticated," recalled Arakawa[21]), it became one of the most popular games in Tokyo.[22] It was, at the time, the second most popular game in Japan after *Pac-Man*.

Pac-Man was creating a sensation in America as well, and Arakawa believed that *Radarscope* would be Nintendo of America's big hit. He asked Japan for 3,000 units, which took up NOA's entire budget and took nearly four months to arrive by boat. By that time, *Radarscope*'s popularity in Tokyo had waned and the prototype units that had been set up in the United States were sitting idle, unplayed. Even more to their disadvantage, *Radarscope* was one of the most expensive arcade games on the market, and it came from a foreign country with a tiny American subsidiary. NOA was able to sell 1,000 games, but had 2,000 left over.[23] Arakawa needed a new game that he could insert into the *Radarscope* cabinets and sell, so he asked Yamauchi to have his staff create one. The only available designer was Shigeru Miyamoto.

DONKEY KONG

Video game design prior to Miyamoto's first effort had been a largely hit-and-miss process. Games were often designed and programmed by a single person. This meant that a successful game designer had to have a creative left brain from which he could pull new and interesting design concepts, *and* have a mathematically adept right brain that would allow him to translate his designs into a ones-and-zeroes computer program. Of course, at this time, the ability to program was far more important than the ability to design. A good program that ran an average design was sellable. An amazing design with a lousy program to back it up was useless.

Giving the keynote speech at the 1999 Game Developers Conference in San Jose, Miyamoto displayed pictures of *Space Invaders* and said, "Until *Donkey Kong*, which I directed, programmers and engineers were responsible for game design. These were the days when the engineers were even drawing the pictures and composing the music themselves. They were terrible, weren't they?"[24]

This was especially true because the video screens of the time couldn't display sharp images. In fact, color screens had only come into wide use a year or two prior. The hottest game of 1978, *Space Invaders*, was black and white. And so even in 1980, as graphics got better, most games were still being developed around very simple, basic ideas: shoot asteroids, shoot bugs, shoot missiles. Games with standout design quality were the exceptions that proved Miyamoto's point.

Miyamoto was adept at design. But he had never designed a game before and did not know how to program a computer. He would never have been given a job designing games at Atari. So how did Yamauchi sense that Miyamoto would come up with such a revolutionary game?

Looking back on his childhood and college experiences, it seems that Miyamoto was always developing the two interests that would make him such an influential game designer. His love for exploration and fascination with new, unexplored territory extended into his college years: "When I went to the university at Kanazawa, it was a totally strange city for me. I liked walking very much, and whenever I did, something would happen. I would pass through a tunnel and the scene was quite changed when I came out."[25]

This sort of exploration and discovery would become a defining aspect of Miyamoto's games once the hardware became powerful enough to bring the worlds in his imagination to life. But his gift for character designs and his love for epic stories are the factors that made his first game a success. The story of *Donkey Kong* was a combination of *Beauty and the Beast* and *King Kong*, two of his favorites. He made it a point to note that his ape, Donkey Kong*, wasn't evil but simply misunderstood—"nothing too evil or repulsive." The gorilla's keeper was "a funny, hang-loose kind of guy" but, as Miyamoto made clear, he wasn't very kind to the gorilla. "It was humiliating! How miserable it was to belong to such a mean, small man!"[26] So Donkey Kong, mistreated and confused, escaped and took his keeper's girlfriend along.

* Miyamoto wanted to title the game (and the ape) something that meant "stubborn monkey." The old English-Japanese dictionary yielded "donkey," as in a stubborn mule. "Kong" had been a generic Japanese word for "large, menacing ape" ever since the 1933 movie *King Kong*.

Donkey Kong's master was drawn from a combination of Miyamoto's ingenuity and the technical constraints of the time. "I didn't know how to make a really cool character," said Miyamoto in 1993, "so I made Mario."[27] Mario, or Jump-Man, as Miyamoto originally called him, was "neither handsome nor heroic… someone anyone could relate to." Miyamoto described Mario as "a short, indomitable, mustached man in a red cap… a kind of Everyman who rises to heroism in the face of adversity" and whose "insignificance… makes him so appealing."[28]

The idea of the unassuming guy who succeeds against the odds is a common theme in Japanese storytelling. To name a popular example from Miyamoto's day, take the main character Nobita from the ubiquitous *manga* and *anime* series Doraemon. Nobita is a middle school boy who is not any good at anything; he's not very smart or athletic or popular, but he wins in the face of adversity (with help from his alien robot cat). Mario doesn't have an alien robot cat, but the comparison is otherwise valid.

Other popular Japanese entertainment features a similar "neither handsome nor heroic" main character, but who is always "someone anyone could relate to." To illustrate this, Ian Buruma uses examples from *manga*, like the often-abused father figure from a popular strip *Dame Oyaji* ('Stupid Dad'), and from film, like the "most beloved character in the history of Japanese cinema," the lonely vagabond *Tora-san*, who is defined by his tragic failings and misadventures.[29]

This is not to say that Mario is a sad sack, an unlucky vagabond, or a fool. He is actually presented as hard working and heroic, but the Japanese preference for these sorts of characters is also clearly present in Mario's design. Mario is accessible—he is our father, or uncle or mailman, or little brother, or us—he is an average Joe. He's no superhero and yet we enjoy identifying with him.

To suggest this slightly dumpy, antihero image, Miyamoto drew a large nose and big, round eyes. Mario got a moustache because video game animation of the time couldn't render a defined mouth. He wore gloves and overalls to distinguish the movement of his arms when he walked. And his red cap was there so his hair wouldn't have to fly around when he jumped.

In other words, Mario was created to look as much like a vibrant, animated cartoon character as video game screens of the time would allow, and the effect was singularly impressive. Had anything been different about Mario—his arms frozen, his hair stiff, his face incomplete—he would have looked unnatural. Instead, he looked and moved more realistically, more like a human being than any video game character before him.

Donkey Kong was the first game project in which the design process began with a story. There were other games that had basic storylines, such as the jailbreak artwork from *Breakout*, but the stories were contrived to conform to the game after it was completed. With *Donkey Kong*, the original characters, their looks, and their motivations were created first, and the game play was crafted with them in mind.

In 1980, as in the early days of film, new video game genres were being invented constantly. "Block" games like *Pong* and *Breakout* gave way to "Space" games like *Asteroids* and *Space Invaders*. *Pac-Man* was the first "Maze Chase" game, spawning imitations from both countries. *Donkey Kong* was something entirely new, a genre that would consume the video game industry throughout the late eighties and early nineties: what Miyamoto called "running/jumping/climbing." Later on, this would be dubbed the "Platform" game, named after the platforms that the main character jumped and climbed.

Originally, Miyamoto recalled in a 2000 interview, the game he started to make wasn't a "running/jumping/climbing" game at all. "At first it was more of an athletic game—the character would ride up and down on a seesaw—it would be a game that used contrivances like that."[30] This was the invention of *Game and Watch* creator Gunpei Yokoi, but it didn't work with the technology of the time. "He wanted a game where you bounce on the seesaw and bounce up off of it. But," he laughs, "we couldn't figure out how to do it; it was really difficult. With a seesaw, if you get on one end, the other end goes up. If you hit one end real hard, the other end goes up just as hard. It was interesting to think about this, but we couldn't do it."

Another concept that didn't work out was *Popeye*. Originally, Miyamoto wasn't going to design characters at all for his first game. Instead, Nintendo was working on obtaining the *Popeye* license from King Features Syndicate. Miyamoto envisioned a game where Bluto took Olive Oyl away from Popeye, who made his way over obstacles, acquired his spinach—and BAM!—knocked Bluto out to end the round. But Nintendo was unable to get the license after all, and Miyamoto set to work on his original characters.

Since Gunpei Yokoi's seesaw idea wasn't working out, Miyamoto changed the design, instead creating a design prototype with barrels rolling down

slopes, and the main character having to climb up and down ladders to avoid them. But looking at this design, Miyamoto felt it would be more fun to have a character that could jump on his own, and so "Jump-Man" (Mario's original name, drawing on Iwatani's "Walk-Man" and "Pac-Man") was born. The story fleshed out from there, and his characters were born. Miyamoto admits that he was still thinking about *Popeye* when he created his own characters, especially in the sense that Mario and Donkey Kong were not *truly* enemies.

"Even after the *Popeye* license fell through, I was still thinking about the relationship between Popeye, Bluto, and Olive Oyl. Their relationship is somewhat friendly. They're not enemies, they're friendly rivals.

> **"Donkey Kong was the first game project in which the design process began with a story."**

"But I needed different characters. The main character, the big, strong guy, and the beautiful woman… well, uh, Olive really isn't a beautiful woman. I figured I'd make mine beautiful instead [laughs].

"What's kind of a mystery is, why did I title the game *Donkey Kong*? The main character, the player, was Mario. That much was decided. But Donkey Kong, his personality was the most fleshed-out of all of them. I think it's best to name the game after the strongest character."

Donkey Kong actually featured *more* gameplay than other games of the time. This also stemmed from Miyamoto's love of Japanese *manga*: "Thinking back, I would say that although it wasn't done consciously, I ended up designing *Donkey Kong* like a traditional Japanese four-panel *manga* comic strip. That way of telling a story in four distinct parts seemed natural to me, so I created four separate screens from the opening to the conclusion. The programmers were able to do this, but they told me at the time that I was essentially asking them to make four separate games!"

In the game's first stage (or perhaps "panel"), Mario starts at the bottom of an unfinished building site. Steel girders and ladders crisscross the screen, and Mario has to climb to the top, where Donkey Kong holds Mario's girlfriend Pauline imprisoned. Mario must jump rolling barrels, fire, and other obstacles that Donkey Kong throws at him. He can grab a hammer for temporary invincibility against the barrels (much like Popeye's spinach). In the final stage, Mario must remove all the rivets from a similar-looking structure, causing it to collapse, thus sending the monkey plummeting to his doom and reuniting Mario with his girlfriend.

The bright, animated cartoon characters and fresh game play alone would have been enough to make *Donkey Kong* stand out. But Miyamoto did something more with *Donkey Kong*. To understand what that was, first note that Miyamoto still calls the original *Pac-Man* his favorite game. In one interview, he said that *Pac-Man* was "the first game where I recognized an actual effort in design. You didn't have designers at the time, so most games didn't really have any design sense. When someone with a background in design like me saw that, I felt like this was my true calling in life."[31] "Back then, I would boast to myself that I was one of the five best game designers in the world. This is because there were very few artists involved in game design at that time."[32]

Pac-Man was innovative in its design and its use of cinematic cut-scenes, but there was no story being told. *Pac-Man*'s non-interactive, movie-like sequences simply showed humorous interludes featuring the game characters, but *Donkey Kong* was the very first game to tell a whole story, from beginning to end.

■ ■ ■

Rather than take this for granted, perhaps we should ask, what *is* a narrative? And how, exactly, does *Donkey Kong* show it?

Film scholars David Bordwell and Kristin Thompson called narrative "a chain of events in cause-effect relationship occurring in time and space."[33] In her book Art In Motion: Animation Aesthetics, Maureen Furniss quotes Bordwell as explaining that in the classical model of cinema, this cause-and-effect relationship had to "lead toward a unified conclusion, or closure of the plot." Furniss then quotes Dwight V. Swain, who elaborates: "The *beginning* establishes your character within the framework of his predicament… The *middle* reveals the various steps of the character's struggle to defeat the danger that threatens him… The *end* sees the character win or lose the battle. Remember, in this regard, the story doesn't truly end until the struggle between desire and danger is resolved, with some kind of clear-cut triumph." Swain argued that every film story must have these three elements. These same principles, argues Furniss, can be applied to commercial animation.[34] You can see each of these elements beginning to emerge in the early "cartoon" video games, starting with *Donkey Kong*.

Most arcade games of the early 1980s not only lacked a story, they also had no cinematic scenes. When you dropped a quarter (or 100 yen) into *Space Invaders*, you weren't treated to a scene of the ship flying into battle or of the aliens departing their home planet. When you pressed the Start button, you were immediately thrust into the action with no buildup.

But *Donkey Kong* was different: upon pressing the Start button, we first see Donkey Kong ascend the building site on a pair of ladders, with Pauline slung over his shoulder (Fig. 1.1). Reaching the top, he places Pauline on the top girder and stomps up and down, causing the girders below him to bend and warp (Fig. 1.2). Reaching his final position in the top left of the playfield, he leers at the player (Fig. 1.3).

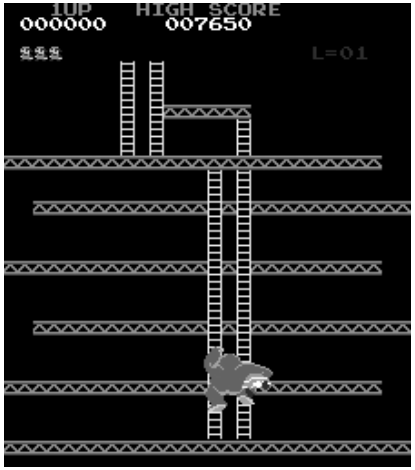


Fig. 1.1

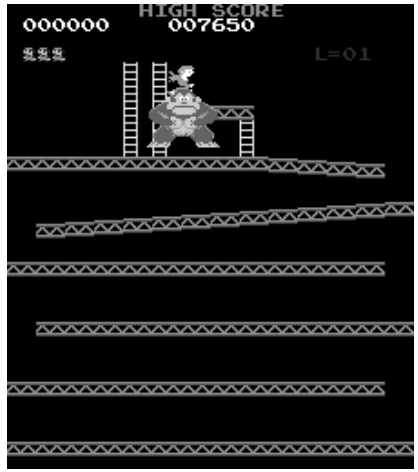


Fig. 1.2

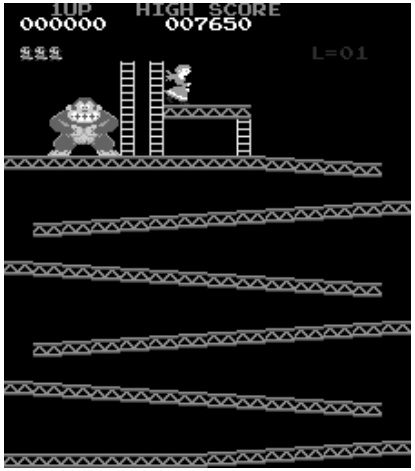


Fig. 1.3

This scene of only a few seconds accomplishes several things all at once. First and foremost, it establishes the game's real-world setting: rather than the abstract star field of *Space Invaders* or the surreal maze of *Pac-Man*, this is an unfinished skyscraper. Much like the design of Mario himself, this setting is carefully chosen to show realism within the confines of technology. A finished office building would have required too much detail. But it was actually possible to display a series of girders, straight out of real life, on the game screen.

Another important aspect of this scene is that it gives the player time to reflect on the setting, on the graphics, and on the characters' mannerisms: Donkey Kong's maniacal grin suggests that he will be a tricky enemy. The player doesn't have time to look at the designs and think about the character traits while actually playing the game; the action is too involving.

After the introductory scene, an interstitial screen alerts the player that the game is about to start, and it also communicates the game's objective: get as high on the screen as possible (Fig. 1.4). The game begins, and although the large double ladders of the introduction are now split up into fragments, the game takes place in the same virtual space as the opening "movies" did.

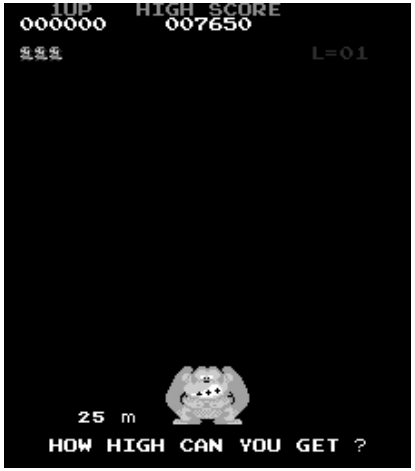


Fig. 1.4

Mario (bottom left) must fight his way up the girders, jumping over the barrels that Donkey Kong rolls down the structure (Fig. 1.5). While he does this, Pauline runs around the top girder, yelling "Help!" (Fig. 1.6). To look away from Mario means death, complete with a halo (Fig. 1.7), so the player probably cannot concentrate on these background elements. But anyone watching another person play the game has the luxury of observing the various animations of the three distinct "actors" in the "scene": Donkey Kong's grin when Mario dies, Mario's determined face, Pauline's exclamations.

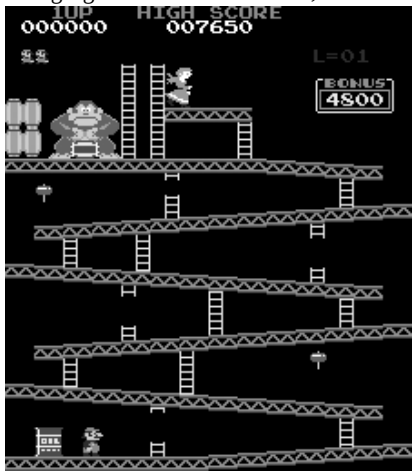


Fig. 1.5

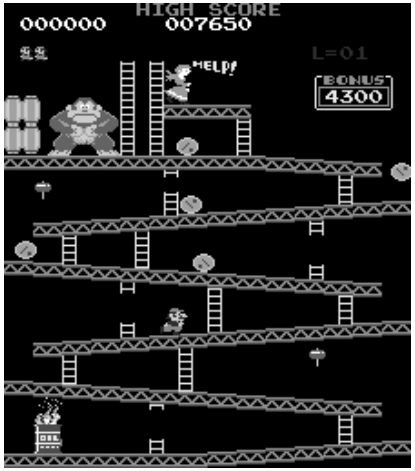


Fig. 1.6

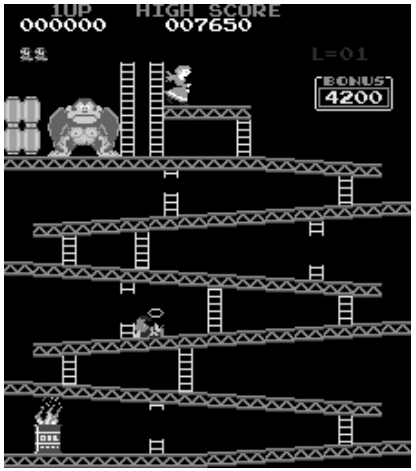


Fig. 1.7

When the player reaches the top, he is rewarded when Mario and Pauline are reunited, complete with a Valentine's heart above them (Fig. 1.8). But Donkey Kong is not yet defeated, and with a look of dismay, he snatches Pauline and carries her further up the structure as the heart breaks (Fig. 1.9). There is another interstitial screen before the second and final stage (Fig. 1.10), a set of straight blue girders that forms the skyscraper's top (Fig. 1.11). Mario must avoid fireballs; the barrels that Donkey Kong threw in the first stage would turn into fireballs that actively pursued Mario if he dawdled, and these are probably ones that managed to climb to the top of the structure. The player soon learns that climbing to the top is no longer the goal: Mario must traverse the entire structure to pull out the yellow rivets (by walking or jumping over them). Pauline runs back and forth atop the structure (Fig. 1.12), and Mario can collect her umbrella, hat, and purse for extra points in this stage. When Mario pulls the last rivet, the entire structure gives way (Fig. 1.13) and Donkey Kong falls to the bottom (Fig. 1.14) and lands on his head, his face contorted (Fig. 1.15). Mario and Pauline are finally reunited at the top of the screen as the final music plays (Fig. 1.16). This short scene is the *denouement*, the ending, the reward for a job well done, and it's the completion of the narrative.

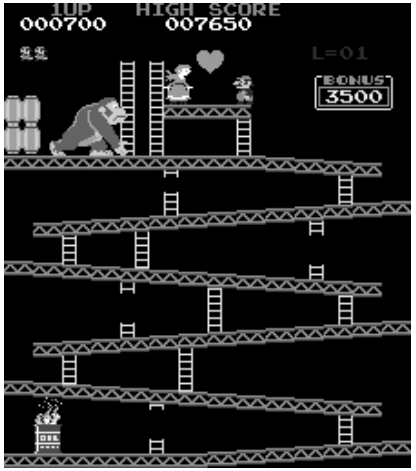


Fig. 1.8

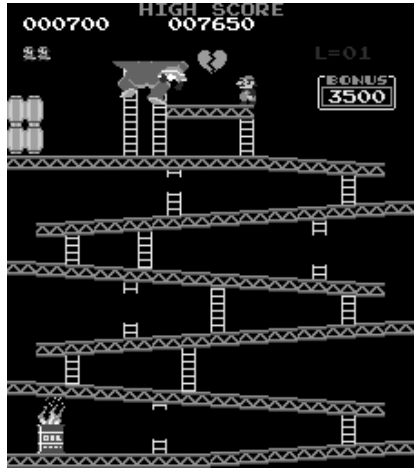


Fig. 1.9

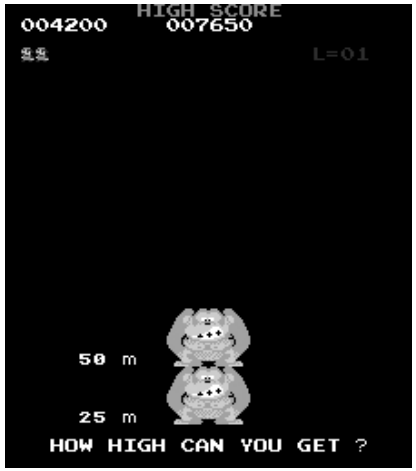


Fig. 1.10

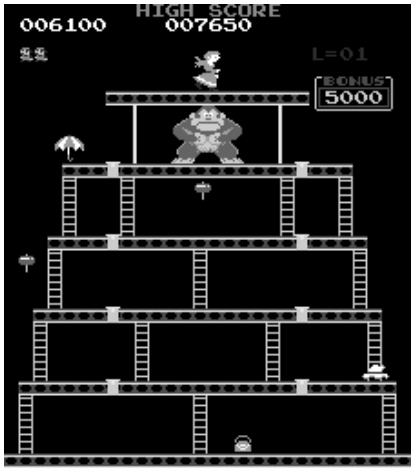


Fig. 1.11

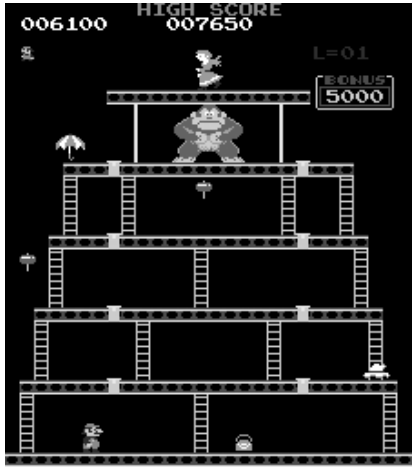


Fig. 1.12

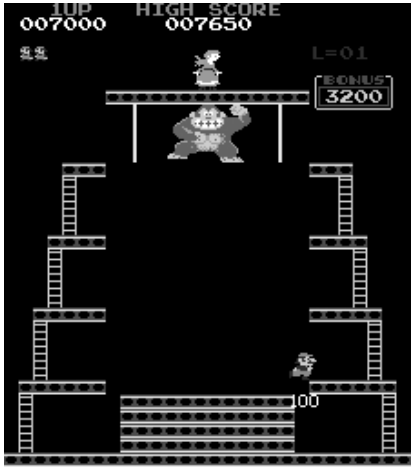


Fig. 1.13

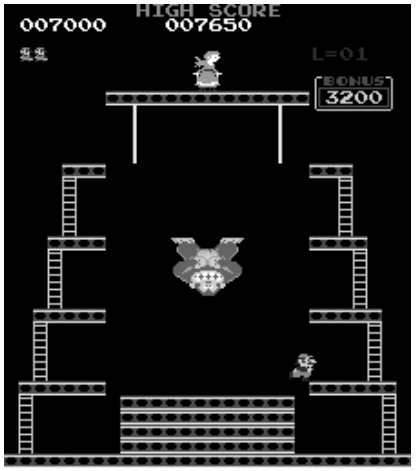


Fig. 1.14

Fig. 1.15

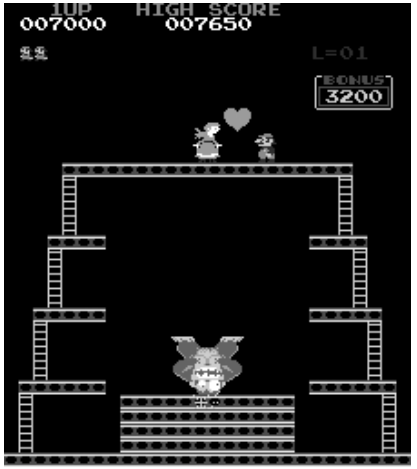


Fig. 1.16

■ ■ ■

Playing the game for the first time, Nintendo's American staff was incredulous. They thought the game played well but was ultimately too foreign; they expected a game in the established shooting or maze genres. Some, thinking the company would surely go under, began looking for new jobs. But still, it was the only game they had, so they decided to prepare the game for a US release, with a simple English-language translation of the game's story to be printed on the arcade cabinet. Because they felt "Jump-Man"

wasn't catchy enough in English, they were wondering what to call the main character. Coincidentally, their landlord came in, demanding the back rent payments. His name was Mario Segali.

Ultimately, Miyamoto's unique action and narrative development made *Donkey Kong* a massive hit in both the US and Japan, eventually outselling *Pac-Man* and *Space Invaders*. Nintendo of America was in business, raking in millions, helped by the fact that the game was too distinctive and story-dependent to duplicate successfully. And Shigeru Miyamoto was given the green light to produce more games.

His second, *Donkey Kong Junior*, was released one year later in 1982 and follows a similar beginning/middle/end narrative structure. *DK Junior*'s story actually inverts the good/evil balance of the original, which helps to illustrate Miyamoto's assertion that neither Mario nor Donkey Kong were entirely good nor evil characters. After the player inserts a coin and presses Start, he immediately sees two Marios (the other one is probably an early version of Mario's brother character, Luigi) hauling the captured Donkey Kong up by ropes (Figs 2.1, 2.2). They push Donkey Kong to the top left of the screen as ominous music plays and the main character, Junior, appears. The player is instructed to get to the Key to "save your Papa!" (Figs. 2.3, 2.4). By this time, as you can see, even in Japan the main character had acquired the name Mario.

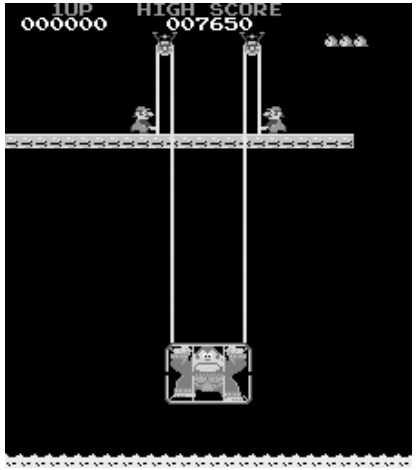


Fig. 2.1

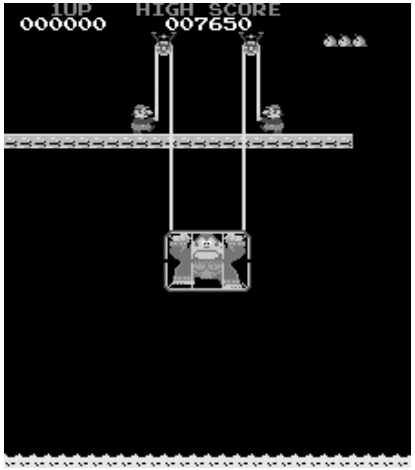
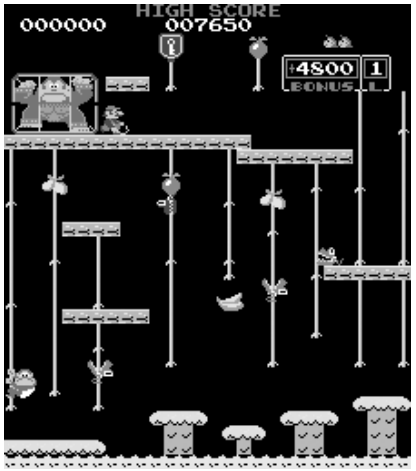


Fig. 2.2

Fig. 2.3

Fig. 2.4

The screen flashes black before the game begins, but when play commences Mario and the caged Donkey Kong are in the same place, again establishing continuity between the non-interactive opening and the interactive game play sequence (Fig 2.5). Junior, who begins at the bottom left of the screen, is in fact a far more vibrant and animated character than Mario was—note his open-mouthed smile as he climbs the vine (Fig 2.6) and his charming death grimace (Fig 2.7). Avoiding the enemies that Mario continually releases and obtaining the Key, Junior is momentarily victorious but Mario is nonplussed; he pushes Donkey Kong off the screen (Fig. 2.8) to Junior's puzzlement, represented by animated question marks above his head (Fig. 2.9).



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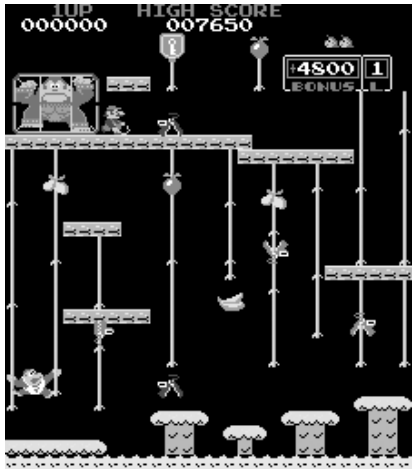

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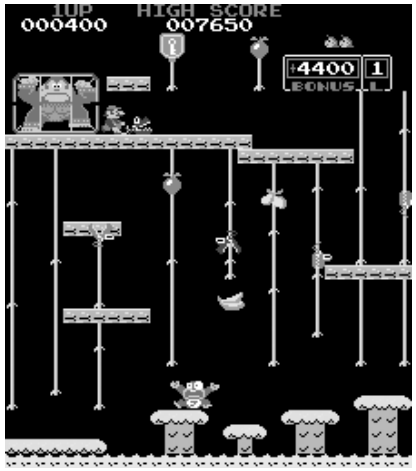

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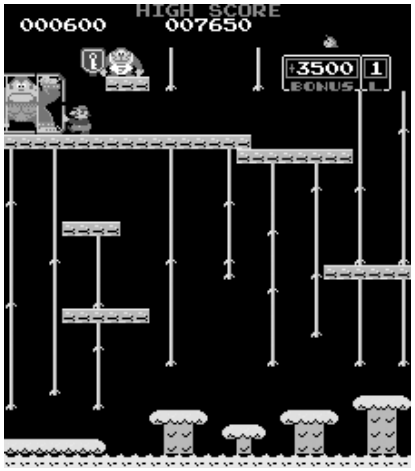

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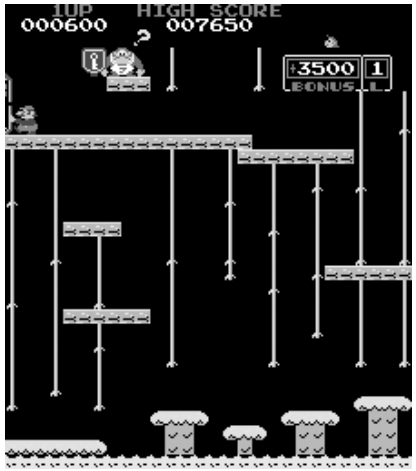


Fig. 2.9

On the next screen, Junior must push all of the Keys up into the locks to finally free his Papa, who is angrily stomping at the top of the screen (Fig 2.10). If the player accomplishes this difficult feat, he is rewarded with the story's end: Donkey Kong and Mario plummet to the ground (Figs. 2.11, 2.12). Junior, the smiling son, catches Donkey Kong, but Mario hits the ground (Fig. 2.13). As the two escape, Mario gives chase (Figs. 2.14, 2.15) but soon finds himself the recipient of a Donkey Kong boot to the face (Figs 2.16, 2.17).

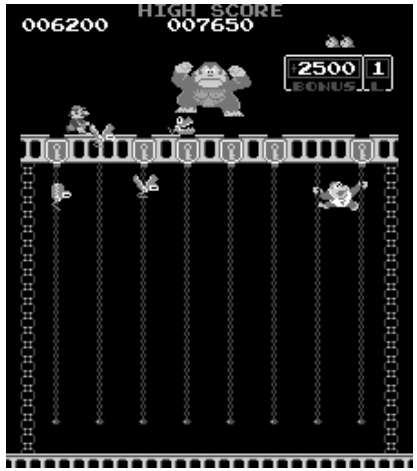
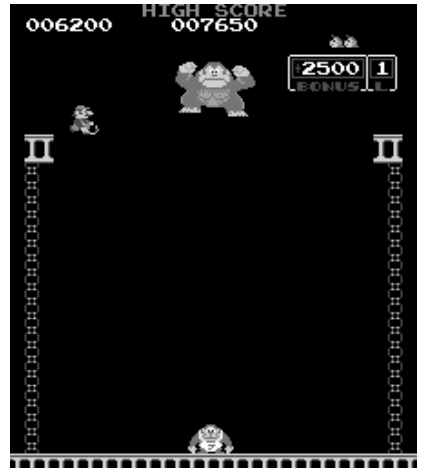


Fig. 2.10



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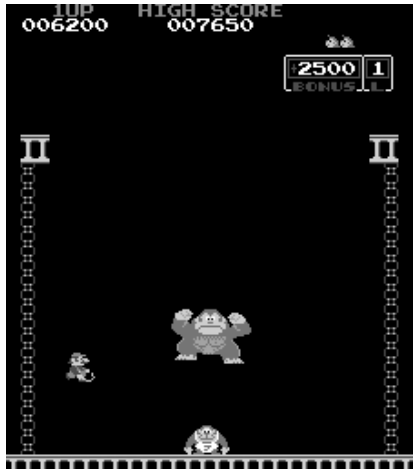
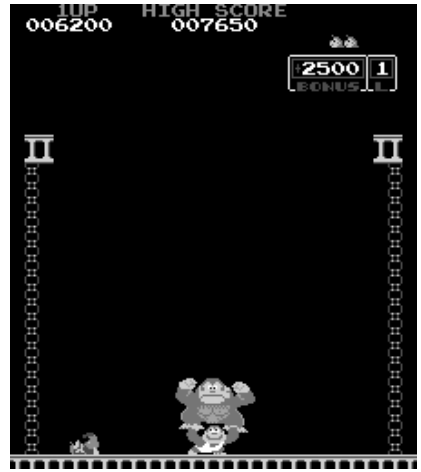


Fig. 2.12



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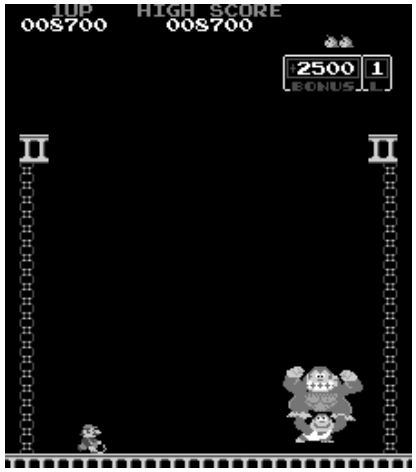

Fig. 2.14

Fig. 2.15

Fig. 2.16

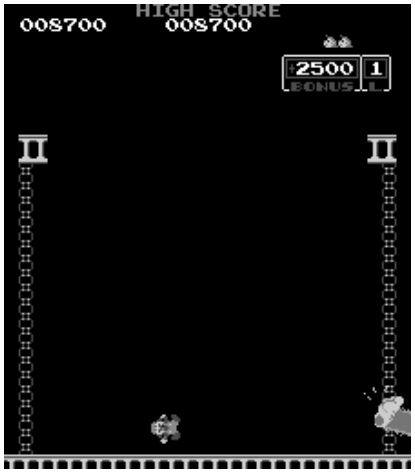

Fig. 2.17

After the stories of *Donkey Kong* and *DK Jr.* are complete, each game starts again from the beginning, and new stages are inserted between the two main ones. These extra stages serve to make the quests longer and more difficult, but there are no additional cinematic scenes in the longer version of the game. The game continues until the player loses all of his Marios or Juniors. With every arcade game since *Space Invaders*, the player's goal has been to get the high score on the machine and enter his initials for all future players to try to beat. This is the eventual goal of *Donkey Kong* players. But an important distinction is that the *beginning Donkey Kong* player starts out with a very different goal: to complete the story. Score is a secondary concern; more important is finding out what happens when you rescue the girl and clear the second screen. The final fanfare (and the appealing image of Donkey Kong's goofy, defeated face or Mario's prostrate body) is a better reward than a series of numbers.

The cut-scenes were also nearly fully integrated into the game. Only the brief interstitial screens to alert players that they were about to take control broke the continuity between the cinematics and game play. Otherwise, the non-interactive scenes occurred on the same screen as the game—this was not the case for *Pac-Man*'s cut-scenes. So, players watched these miniature, lifelike cartoon characters play out a story, and then had the privilege of controlling them for the middle of the narrative. This was important because it appealed to the consumer's desire to own the character.

■ ■ ■

In a 1997 book titled *Kids' Stuff*, Pennsylvania State University professor Gary Cross discussed the appeal of licensed character toys, which began to appear en masse in the 1930s. "Customers bought more than a plaything with their purchase [of a licensed toy]. They won entry into a special community of the initiated and of fantasy as embodied in the celebrity image… the toy made the owner a player in the world of the character."[35]

In the same way, the player of *Donkey Kong* became an active participant in the story. Even during the Depression, noted Cross, parents would pay a premium price to own a Mickey Mouse lunchbox rather than a cheaper, generic brand. So it's not surprising that this same sort of character association for *Donkey Kong* still translated directly into sales. *Donkey Kong* is still one of the biggest-selling arcade games of all time.

This comparison to toy marketing is important because video games have long been a children's pastime. But this was not always the case. The first successful arcade games—*Pong*, *Breakout*—were usually placed in over-21

establishments like bars and pool halls, and they turned fine profits from adult players. The early arcade game advertisements reproduced in Van Burnham's book Supercade all show adult or late-teen players crowded around the game cabinets. Meanwhile, advertisements for *home* video game systems showed parents and their young children (apparently 7 or 8 years old) gathered around the television.

It is clear that children were attracted to video games and that home games were being marketed to them—and to their parents, who ultimately decided on the $100+ purchase of a game console. Children also spent a lot of time in the arcades, as evidenced by the public-awareness campaigns led by concerned parents, who complained that their children were spending time in seedy public places like bars and pool halls just to play video games. The problems inherent to this sort of atmosphere led Atari founder Nolan Bushnell to envision a combination pizza parlor/arcade, decorated in bright colors and inviting to children. This became the restaurant chain "Chuck E. Cheese" in 1977. This safe and inviting environment led to a preliminary stamp of approval on video games as children's entertainment.

Miyamoto contends that he makes video games for people of all ages, but it was in this new atmosphere of games-for-kids that *Donkey Kong* was released. *Donkey Kong*'s appeal to children had a lot to do with the vibrant graphics and cartoonish presentation. After all, the game's soundtrack and animation made it look quite like a cartoon television show. But the fact that the child could *control* the character—to have total control over a person and over a small system, something that few children have in their daily lives—was another big attraction. Psychologist Marsha Kinder wrote in 1991 about Nintendo's games as oedipal fantasies, noting that the most popular Nintendo games of the time (*Punch-Out*, *The Legend of Zelda*, and *Super Mario Bros.*) all starred a small, "insignificant" character who went up against a giant with far greater powers and toppled him, sometimes even saving the woman in his grasp.[36]

Children have always loved these sorts of child-beats-giant stories; Kinder points to David and Goliath, Jack and the Beanstalk, *The Karate Kid*, and the immensely popular *Home Alone* movies. But video games, beginning with *Donkey Kong*, added the element of control. In a study based on the Teenage Mutant Ninja Turtles properties, one six-year-old boy said that he liked the video game more because "you can move the guys yourself and in [the Turtles cartoon] you can just see them."[37]

In his book Reinventing Comics, Scott McCloud noted again the importance of control over the video game narrative by comparing them to superhero comics: "Superheroes are first and foremost about role-playing, becoming the character… comics have a great untapped potential for audience participation… but [the video game] already kicks comics' butt, and it's only going to gain strength in the coming years."[38] McCloud, as you might imagine, is also quick to praise the Japanese comics culture.

It is impossible to exaggerate how crucial the element of control has been to the success of Nintendo, to video games as an industry, and to the games as a popular recreation. "Video games constitute virtual play spaces,"[39] wrote Henry Jenkins. Miyamoto agrees. When he tells me that his main job is *ningen kougaku*, he means it; if the interface—the means by which the player interacts with the character—is not intuitive and fun, then the game isn't any good.

This assertion that control is the most important addition to video game narratives is backed up again and again, from Kinder to Jenkins, to no less a person as revered film scholar Donald Richie. In a recent interview with *Kyoto Journal*, Richie reinforced the connection between *manga*, *anime*, and video games:

> "…[A]nime, like the TV games that spawned them, gives the impression of control. One could, you will remember, starve the *tamagotchi* to death if one so chose. These gadgets give the power-deprived young the impression that they are in the driver's seat. So do manga. So do anime—the ultimate presentational (every frame hand-digitaled) narrative."[40]

After all, how else could one explain why children were able to identify with and wish that they could become Mario, *a thirty-something, overweight Italian plumber*? The best illustration of how much children of both cultures recognized and liked the character comes from a 1997 Japanese middle-school introductory English-language textbook. The lesson is titled, "How old is Mario?" and the main model conversation features two Japanese and two *gaijin* middle-schoolers playing a Nintendo Super Famicom and talking about Mario:

Ken: Sarah, do you know Mario?

Sarah: Yes, I do. He's very popular in the United States.

Yumi: Oh, really?

Paulo: Mario is not so young, but he's very cute.

Yumi: Oh? How old is he, Ken?

Ken: I don't know. Maybe about thirty-five.[41]

Miyamoto not only understood the importance of control, he was also superb at its execution. Note his addition of the jumping feature; he knew that in making the simple act of moving the character enjoyable, it would be even more fun for the player to completely control Mario's jumps. This became a defining characteristic of his games when Nintendo decided to release a programmable home video game system in 1983.

COMING HOME: *SUPER MARIO BROS.*

Looking at Marsha Kinder's study, it is clear that by 1990 "Nintendo" had become synonymous with "video games" in American parlance. "Nintendo game" meant all video game software, regardless of whether or not it was played on a Nintendo system, although it probably was. But this had not always been the case. In fact, up until 1984 the word was "Atari."

The Atari 2600 Video Computer System was the home video game console in millions of American homes, and it played the home versions of nearly every arcade hit: *Pac-Man*, *Space Invaders*—even *Donkey Kong*. Nintendo had licensed *Donkey Kong*'s home-system rights to a Hartford, Connecticut company called Coleco*, who published the game on the three leading video game consoles of the time: the Atari 2600, the Mattel Intellivision, and their own Colecovision console. To save precious space on the storage media of the time, none of the home versions contained the cinematic sequences—only the main game play was programmed onto the cartridges.†)

By 1983, most of the American programmable systems were being imported into Japan. The VCS was being sold as the Atari 2800; the Magnavox Odyssey[2] could be found as well; and Japanese toy mainstay Bandai, after releasing a line of dedicated and programmable systems called "TV JACK," had imported and sold three different American systems: Mattel's Intellivision, Emerson's Arcadia, and Milton Bradley's Vectrex.*

* Stands for "Connecticut Leather Company"—based in Hartford, they had started out producing leather goods, then moved into children's toys, and then video games.

† Even more than that, the Atari 2600 and Intellivision versions looked and played absolutely terribly. The Intellivision version was so poorly rendered that Donkey Kong was colored green and resembled nothing more than an amorphous blob. There was speculation that Coleco only produced these games to show that the Colecovision, with its nearly perfect version of the game, was the best system to own. This probably isn't true, because the Atari version of *Pac-Man*, programmed by Atari themselves, was just as poor.

* The Vectrex contained a built-in vector graphics monitor, which allowed it to display finely detailed (but black-and-white) vector graphics, as in the *Asteroids* arcade machines. The Japanese name of the system was *Kousokusen*, or "light-speed vessel."

What's more, no less than five other Japanese companies, including Tomy, Takara, Epoch, and Sega, had released their own programmable video game consoles. What most of the systems on the market in Japan had in common was that they were very expensive. Commodore Japan's Max Machine sold for ¥34,800. Bandai's version of the Intellivision was ¥49,800, Tomy's Pyu-Ta was ¥59,800. Sega's SG-1000 (¥15,000) and Epoch's Cassette Vision (¥13,500) were much cheaper, but they were primitive by comparison.[42]

In short, the Japanese market was incredibly crowded, consumers were undoubtedly confused, and no clear leader had emerged. Nintendo president Hiroshi Yamauchi, having seen great success with Nintendo's first forays into the home video game market, wanted to take the lead by producing a cheaper and far more powerful programmable system than the dozen or so machines then fighting for shelf space.

That system was the Family Computer, or Famicom, which was released in Japan on July 15, 1983 and cost ¥14,800. It was an instant success; Nintendo sold more than 500,000 Famicoms in two months, and the strong sales continued. Released on the same day were Famicom versions of *Donkey Kong*, *Donkey Kong Jr.* and *Popeye*—Nintendo had finally acquired the Popeye license, but Miyamoto did not design the game. A translation of Miyamoto's latest arcade game, *Mario Bros.*, followed that September. *Mario Bros.* featured another version of the second Mario from *Donkey Kong Jr.*, but

now he was clad in green and called Luigi. *Mario Bros.* was a running/jumping/climbing game in which two players could participate simultaneously. They could either try to attack each other and be the last man standing, or cooperate to reach higher levels. *Mario Bros.* was a step back in terms of narrative, as there were no cut-scenes, no girl to save, and no final monster to defeat. The creatures just kept coming until Mario and Luigi died. But, importantly, the Marios and their enemies were even larger and more cartoon-like in their animated movements.

Mario Bros. is also where Mario and Luigi acquired much of their character back-story. Miyamoto had already decided that Mario was a manual laborer who worked very hard, but because the game was set underground in a large network of giant green pipes, Miyamoto and team rationalized that Mario and Luigi should specifically be plumbers. And when they thought about what sort of place would have that kind of labyrinthine subterranean network of sewage pipes, New York immediately came to mind.

They knew from the first that they wanted to have Mario and Luigi attacking enemies directly rather than simply avoiding obstacles as in *Donkey Kong*. Turtles were used as the main enemy because Miyamoto wanted a creature that could be flipped onto its back and made helpless. Other enemies included crabs and giant flies. They wanted Mario to be able to jump on top of the enemy to defeat it, but this proved impossible to program; it would have required the program to distinguish between Mario touching the turtle from its top or its side, which would have required an algorithm too complex for the hardware to handle.[43] Instead, Mario and Luigi could jump up and hit overhead platforms from underneath, causing enemies atop these platforms to flip over. With an enemy harmless on its back, the player could then maneuver Mario directly beside it to kick it off the screen, thus defeating it.

The Famicom titles featured only the bare essentials, which means the few cinematic scenes from the arcade versions had to be cut. But the otherwise high quality of these translations, coupled with the system's low price, made the Famicom a moderate success in its first few years. A light gun that looked like a cowboy's six-shooter, complete with holster, hooked up to the Famicom and played home versions of Nintendo's arcade gun games, which themselves were themed on the Beam Gun toys and Laser Clay Ranges: *Wild Gunman*, *Duck Hunt*, *Hogan's Alley*. The latter two of these titles were directed by Miyamoto. Two more of Miyamoto's games, a motorbike racing/stunt game called *Excitebike* and a *Pac-Man* styled maze game called *Devil World**, were also quite popular.

* *Devil World* was the only one of Miyamoto's games that was never released in America. See Chapter 8.

But the "Famicom boom" that would ensnare Japan (and the world) in its

colorfully animated grasp did not come until 1985 when *Super Mario Bros.* was released for the Famicom. *Super Mario Bros.* was Miyamoto's longest and most complex game to date, merging the cinematic, story-oriented *Donkey Kong* with the depth of play that *Mario Bros.* provided. *Super Mario Bros.* was so complicated that an extra processor chip called the MMC-1 had to be included on the game cartridge. And as a home game, it had something arcade games lacked: a lengthy, detailed instruction booklet. Although there was no opening story sequence in the game program itself, the first page of the *Super Mario Bros.* booklet spelled out the beginning of the story:

> One day the kingdom of the peaceful mushroom people was invaded by the Koopa, a tribe of turtles famous for their black magic. The quiet, peace-loving Mushroom People were turned into mere stones, bricks, and even field horsehair plants, and the Mushroom Kingdom fell into ruin.
>
> The only one who can undo the magic spell on the Mushroom People and return them to their normal selves is the Princess Toadstool, the daughter of the Mushroom King. Unfortunately, she is presently in the hands of the great Koopa turtle king.
>
> Mario, the hero of this story (maybe) hears about the Mushroom People's plight and sets out on a quest to free the Mushroom Princess from the evil Koopa and restore the fallen kingdom of the Mushroom People.
>
> You are Mario! It's up to you to save the Mushroom People from the black magic of the Koopa!*

* Taken from the US version's instruction booklet, which was an exact translation of the Japanese. See Chapter 8.

Donkey Kong was the first game that asked a player to accomplish the concrete goal of completing the narrative, but even a mediocre player could save Mario's girlfriend in a few minutes of play. The *actual* challenge of *Donkey Kong* was to get a high score by playing the same levels over and over again. Many other running/jumping/climbing games with a similar challenge followed *Donkey Kong*, but *Super Mario Bros.* was the first game in which simply completing the story was the *actual* goal of the player, and so the exhortations of this introductory text were to be taken seriously. *Super Mario Bros.* kept score, but nobody cared; the idea was to find out what happened when you saved the princess!

This sort of introductory text was common in home games before *Super Mario Bros.*, but none of them ever added so much to the game's story. Whereas the entire story of *Donkey Kong* had to be told in pantomime by the onscreen characters, the instruction booklet fleshed out the characters in far greater detail.

And because there were very few cut-scenes in the game program itself, this introduction was necessary. Later pages in the instruction booklet describe each enemy character in turn and reveal a bit about their personalities. Character introductions were not unprecedented either, but since the *Super Mario Bros.* stories and characters were turned into successful comic books, movies, television shows, and children's novels, there must have been something more appealing about the Koopa Troopas and Buzzy Beetles that populated Miyamoto's world.

The unassuming Mario gained some new powers and abilities in the world of *Super Mario Bros.* Some, like the ability to jump on turtles and kick the shells, were ideas from earlier games, and some were brand-new concepts taken from more of Miyamoto's favorite stories. From *Alice In Wonderland*, he took the Magic Mushroom, which would turn Mario into the giant Super Mario. And drawing on *Star Trek*, Miyamoto created secret "warp zones" that would allow players to instantly skip ahead to the game's final levels.

Finding and using the warp zones was crucial to Mario's victory, because in its time *Super Mario Bros.* was the longest and most complicated video game ever designed. Whereas most prior video games, including *Donkey Kong*, had taken place on a single screen or a succession of repeating screens, *Super Mario Bros.*' playfield was larger than the size of the display screen. As the player moved his character to the screen's right edge, the playfield would shift smoothly to the right to reveal portions of the playfield that were previously off-screen. This approach allowed each "level" to be dozens of screens long. *Super Mario Bros.* was not the first 'side-scrolling' game, but it looked smoother than any other and exploited the technique much more effectively.

Although *Super Mario Bros.* was a great step forward in graphics, characters, and game play, it lacked the beginning/middle/end narrative structure of *Donkey Kong*. The game begins with Mario on the title screen (Fig. 3-1). One can watch a demonstration of the game or press the Start button to begin. The terrain Mario must travel (always left-to-right) is impressively diverse: from the bricks-and-pipes level 1-1 to the giant platform trees of 5-3 (Fig. 3-2) to underwater levels through which Mario must swim (Fig. 3-3). This variety of terrain and color, not to mention the game's sheer scope, made Mario's world leaps ahead of previous video games. The fourth level of each world is a castle filled with fireballs and pools of lava. At the end, Mario encounters the giant lizard Koopa, also known as Bowser (Fig. 3-4).

Fig. 3-1


Fig. 3-2


Fig. 3-3

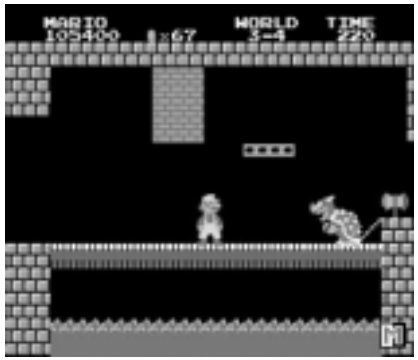

Fig. 3-4

At this point, a gamer accustomed to the brief Atari games of the era would assume that the game is nearly over and that he is moments away from rescuing the Princess. But this is far from true. In fact, there are seven more "worlds" of four levels each to traverse before the Princess is found. All of the Koopas (Bowsers) save the one in level 8-4 are fake; after Mario defeats them he advances to the right to find not the Princess Toadstool (*Piichi hime*, or Princess Peach, in Japan) but instead one of her Mushroom Retainers (*kinopio*), who informs Mario that the Princess is, in fact, in another castle (Fig. 3-5).

Fig. 3-5

Mario continues to hear this until the final level, 8-4, the most difficult in the game. While most other levels are rather straightforward paths, some with difficult enemies and most with hidden surprises (accessed by going down pipes and climbing up vines: Fig 3-6), level 8-4 is a devious maze. Following the wrong path sends Mario back to an earlier part of the level. If Mario makes it through this ordeal via trial and error, he goes up against the final gauntlet of enemies, ending with the real Koopa (Figs. 3-7 ~ 3-10). Mario can either kill Koopa (Bowser) with fireballs (Fig. 3-11) or cut the drawbridge by grabbing the axe (Fig. 3-12). If he does the latter, the player enjoys a comical sequence in which Koopa remains briefly suspended in midair, wiggling his toes as he discovers that his drawbridge has been cut from beneath him, at which point he plunges into the lava. In context, Koopa's maniacal, open-mouthed grin changes from leering to pathetic.

Fig. 3-6

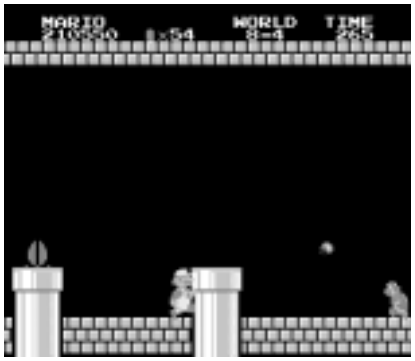

Fig. 3-7

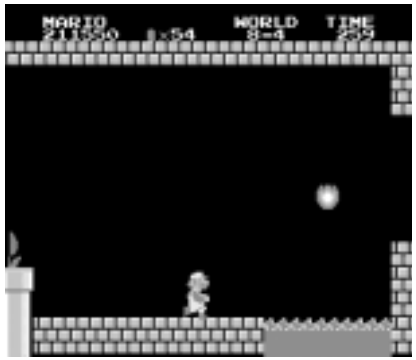

Fig. 3-8

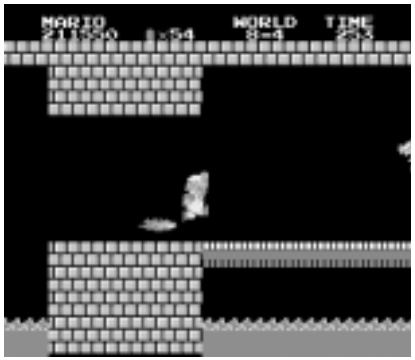

Fig. 3-9

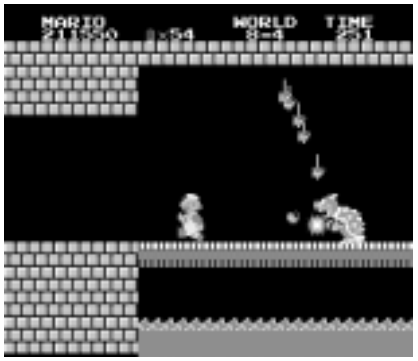

Fig. 3-10

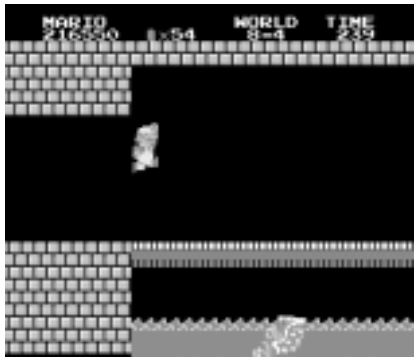

Fig. 3-11

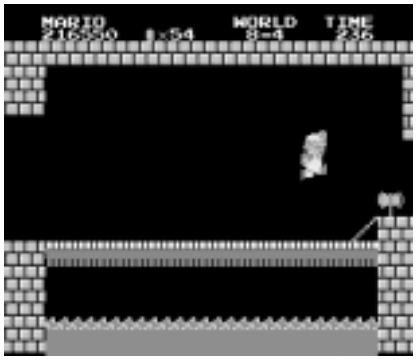

Fig. 3-12

Super Mario Bros. was, like the original *Mario Bros.*, a step back in terms of narrative compared to the movie-like *Donkey Kong* games. Even *Super Mario Bros.*' ending simply consisted of a flat, motionless Princess congratulating Mario curtly (Fig. 3-13) before sending him on "another quest," a harder version of the original game (Fig. 3-14). Even so, *Super Mario Bros.* was novel enough to become the best-selling video game of all time, a record that it is in no danger of losing even today.*

* *Super Mario Bros.* sold approximately 6,810,000 copies in Japan alone. Worldwide sales figures are unavailable but would easily bring the total well past twenty million copies, not counting the millions and millions of bootleg copies that sold in China, Taiwan, Hong Kong, and elsewhere. The next highest game on the list is Nintendo's Tetris for the Game Boy, which sold 4,230,000 copies. [Data from 2002 CESA Games White paper, published by the Computer Entertainment Software Association in Tokyo.]

Fig. 3-13

Fig. 3-14

The US version of the Famicom, renamed the Nintendo Entertainment System, launched in New York City for Christmas 1985 with games like *Duck Hunt*, *Wild Gunman*, and *Donkey Kong*, but not *Super Mario Bros.*, which arrived in 1986. As in Japan, it was Super Mario that launched "Nintendomania" in the US—it was so unlike any game that had come before that everyone had to have it.*

* For a detailed, informative, and entertaining account of Nintendo's success in the US, I heartily recommend David Sheff's Game Over.

In Japan, a book that contained detailed maps of *Super Mario Bros.*' worlds, which plotted out all of the enemy locations, hidden warps, and power-up items, such as the Magic Mushroom, quickly became a certified best-seller. There were Mario *manga* serials, and finally an animated feature film, *Suupaa mario burazaasu: Piichi hime kyuushutsu daisakusen* (*Super Mario Bros: The Great Battle Plan To Save Princess Peach!*) was released to theaters in 1986. The film opens with Mario playing a Famicom late at night, suddenly finding that the characters have started to come out of the game screen. He attempts to save Princess Peach from Koopa but fails. Later that morning, Luigi convinces him it was all a dream. The next day, at the general store that the Mario Bros. run, Mario is lost in daydreams over the lovely Princess Peach when suddenly, a strange dog-like creature appears and summons the Mario Bros. to the Mushroom Kingdom.

Other plot elements added to the movie include the Mushroom King, who sends Mario, Luigi, and the dog-like creature on their way through the kingdom, and of course the final plot twist at the end, in which the dog is revealed to be Princess Peach's fiancé (he had fallen under Koopa's curse) and Mario's crush on the Princess comes to an unrequited end. Because that is the extent of the plot, the bulk of the film consists of repetitive 'choreographed' musical scenes depicting Mario and Luigi (the second player's character) running through the Mushroom kingdom stomping on enemies—very much like the bulk of the game.

Licensed Mario properties of this type took a while longer to reach America, but they did in spades: a live-action movie, a syndicated television show called *Super Mario Bros. Super Show* that featured live-action segments and animation, and a comic book series called Nintendo Comics System. The characters and plots for these generally came from the later games in the Mario series. As one might imagine, the later games not only expanded Mario's abilities but also greatly expanded the number of cinematic sequences and featured more refined character roles.

SUPER SEQUELS

> [Celebrated filmmaker] Jean Renoir, in a famous saying, pointed out that a director essentially makes only one film, has only one story to tell. A number of unarguable auteurs give clear credence to this notion [by remaking earlier films]… Such practice is perhaps even more common in Japan… That these men were in essence (and often in fact) their own producers when they remade their own films convinces us of their own overt desires to redo an earlier film, even beyond the manner in which all of these directors continually rework, repeat, and refer to motifs found in earlier films. That they were in a sense allowed to remake an earlier film within the commercial context in which they all worked is also not surprising… We also note something else: that in most of these instances (and others throughout film history to which one could point), the remakes add another dimension to the film, typically color cinematography.[44]

It is interesting that film critic David Desser finds the practice of remaking films "even more common" among Japanese auteur/directors, because we also find this to be true of Miyamoto and other Japanese game creators. *Donkey Kong Jr.* is the only game in the Mario series that could be called a true sequel in terms of storyline, a *continuation* rather than a *remake*. For the rest of the Super Mario Bros. games, the basic plot of the original—Mario defeats Bowser, saves Princess Peach—is retained, but there are more cinematic scenes and sometimes plot twists over the course of the game.

We find another parallel in the notion of advancing technology. New computer hardware technology from Nintendo is *always* accompanied by a new Mario game, even today. *Super Mario Bros. 2* (1986) launched with the Famicom Disk System, a floppy disk drive add-on only released in Japan. *Super Mario Bros. 3* (1988) was on a standard cartridge but contained

Nintendo's new MMC3 computer chip, which allowed for more complex graphics. The Nintendo Game Boy's launch in 1989 was accompanied by a scaled-down, portable Mario adventure called *Super Mario Land*. *Super Mario World* (1990) and *Super Mario 64* (1996) were the first games for Nintendo's Super Famicom and Nintendo64 hardware, respectively. *Mario Clash*, a 3-D version of the first *Mario Bros.*, launched with Nintendo's ill-fated 3-D platform, the Virtual Boy, in 1995. The one time that a new Mario game was *not* available at the launch of a Nintendo system was with *Super Mario Sunshine* on the Nintendo GameCube. In that case, the Mario game launched a little less than a year after the system, but *Luigi's Mansion*, a *Ghostbusters*-style haunted house adventure starring Luigi, was available on launch day.

In general, then, it is only when new technology makes it possible to truly upgrade the game that Miyamoto remakes his titles. There are, of course, many more games bearing the Super Mario name, from sports games like *Mario Golf* to puzzles like *Mario's Picross*. But the ones with which Miyamoto—who by the early 1990s had been promoted to "producer," overseeing the development of dozens of titles at once—had the most direct involvement are the ones that remake the original story.

Super Mario Bros. 2

The New Hardware: In 1986, the Famicom was riding high on the *Super Mario Bros*. Boom, and Japanese gamers eagerly anticipated Nintendo's next big move. It turned out to be a floppy-disk drive called the Famicom Disk System. The games came on small magnetic disks encased in hard yellow plastic, slightly smaller than the 3.5" floppies that would much later become standard on home PCs. The disks were double-sided and held more data than the standard cartridges for a cheaper price, about ¥4000 for a disk game versus ¥6000 and up for a cartridge. Even better, the disks were rewriteable. A video game store equipped with a Disk Writer kiosk could erase old, unwanted games and give the player a new game, with a new instruction book and stickers for the disk, for between ¥500 and ¥1000.

The Game: *Super Mario Bros. 2* was subtitled "For Super Players," and it was not a top-to-bottom remake, but rather a new and blisteringly difficult set of levels. Besides the different world maps and a few new enemy characters, the game's graphics, sounds, and story were entirely identical to the original.

Miyamoto was not very involved with the production of *Super Mario Bros. 2*. At a 2003 lecture at Tokyo University, he admitted as much: "Once we all got a little bolder and hired on apprentice-type people, around the time of *Super Mario Bros.*, I could just bring out the original design and leave the rest to apprentices. That ended up being the best way of all to make games. So by that time I was a director—. I started work on Mario and Zelda sequels at the same time. I was the director on both projects and I really thought I was going to die."[45] Feeling pressure, Miyamoto focused his energy on Zelda and left most of *Super Mario Bros. 2* to a designer named Takashi Tezuka. "He directed the project, and I contributed about ten percent."[46] Tezuka would go on to work closely with Miyamoto throughout the Mario series.

***Super Mario Bros. 2* looked superficially similar to the original game, although the levels were much harder (left). A special reward awaited players who made it all the way to the Princess: she was redrawn to look much prettier, and she recited a poem (in English) while a remixed, lengthier version of the ending theme song played (right).**

Super Mario Bros. 3

The New Hardware: The Famicom turned five years old in 1988, and that is *ancient* for a piece of video game hardware. These days, all but the most popular video game systems are pulled from production before their fifth birthday. But the Famicom, as perhaps the most popular video game platform in history, had remarkably long legs. And Nintendo, as a conservative business loathe to do anything that might jeopardize their reign over the Japanese and American game industries, were not about to shake things up by introducing a new video game system. This despite the fact that hardware technology had evolved considerably in five years and soon-to-be rivals NEC and Sega were gearing up to release new machines with advanced processing

power. Of course, if Nintendo continued to produce 1983-era games like *Donkey Kong*, they'd quickly lose that number-one spot. There were two ways to produce more complex games on the Famicom: add extra memory to the cartridge ROMs, or add a coprocessor chip into the cartridge. *Super Mario Bros. 3* did both.*

* But the Famicom Disk System could do *neither*, because the disk format did not allow for it. Nintendo realized this failure and pulled Disk System support, releasing nearly all its post-1986 titles on cartridge.

The Game: *Super Mario Bros. 3* was Miyamoto's first complete, bottom-to-top remake of the Mario adventure. It is even today considered one of the finest video games ever made. While its graphics might not compare to today's games, the expansive world of Mario 3 (which most players never fully explore) let Mario *backtrack* through stages, climb *up and down* instead of left and right, and gave Mario several new powers, not the least of which was the ability to fly.

Each time Miyamoto remakes the Mario adventure, he refines and adds to the game play mechanics in this manner, but he also remakes the story. By examining the ending sequences of the latter Mario games—each of which includes Mario in the final showdown with Koopa, the rescue of the Princess, and some form of credits sequence—we can see how each game's ending became more and more like a film's.

In *Super Mario 3*, the fight against Koopa becomes even more epic and lengthy. First, in place of eight identical Koopa stand-ins, Mario squares off against one of Bowser's seven children at the end of each world (Fig. 4-1). When he finally eludes the traps and dangers of Koopa's castle, the player finds that he cannot simply run past Koopa or jump on his head to defeat him. Rather, he must trick Koopa into breaking his way through the blocks beneath him into the bottomless pit (Figs. 4-2, 4-3).* It is more of a *fight*, as the player must spend minutes evading and luring Koopa to his doom, rather than simply running underneath him, as in the first game. This accomplished, Mario can enter the door to the right, into the Princess' chamber (Fig. 4-4).

* One of Miyamoto's new ideas for the game play of *Super Mario Bros. 3* was that Mario could put on a variety of 'suits' that gave him new powers. The suit shown in this picture is in fact a *tanuki*, and one of the things that *tanuki* Mario could do was turn into a statue. This is another example of how the games were being created specifically for a Japanese audience.

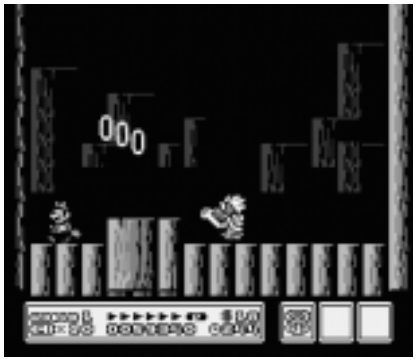

Fig. 4-1

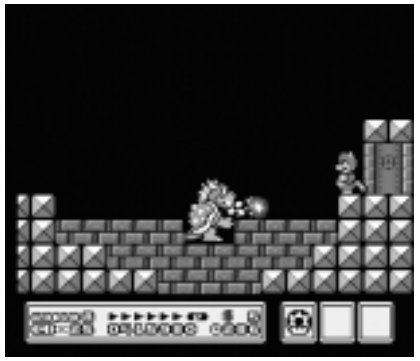

Fig. 4-2

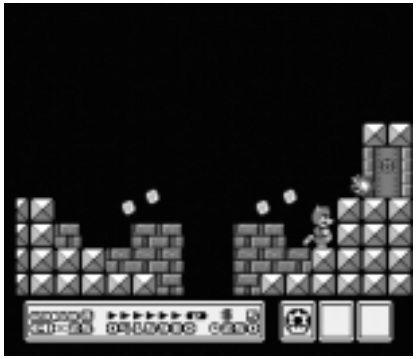

Fig. 4-3

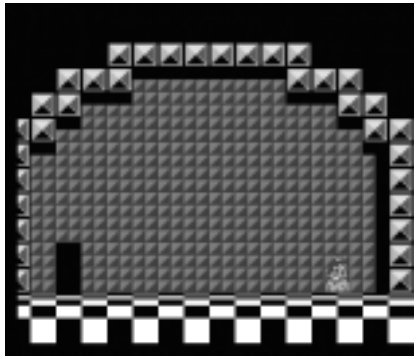

Fig. 4-4

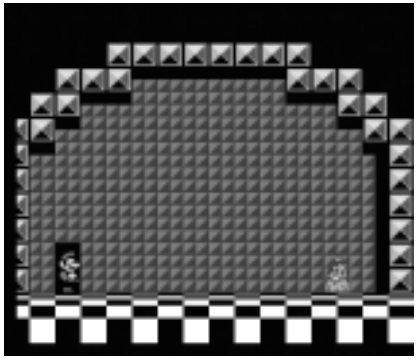

Fig. 4-5

The meeting-the-Princess scene is entirely refined. First, we see the Princess crouched in a corner of the darkened room (Fig. 4-5). Mario then appears in the door and turns on the lights (Fig. 4-6). The two meet each other in the center of the room (Fig. 4-7), and the Princess delivers a short, congratulatory message (Fig. 4-8). In the Japanese version (left), the Princess' comments are rather subdued: "Thank you! Peace has returned to the Mushroom world. The End!" The English translators had a bit of fun with the Princess' comment for the American version of the game (right): "Thank you! But our Princess is in another castle! …Just kidding. Ha ha ha! Bye bye."

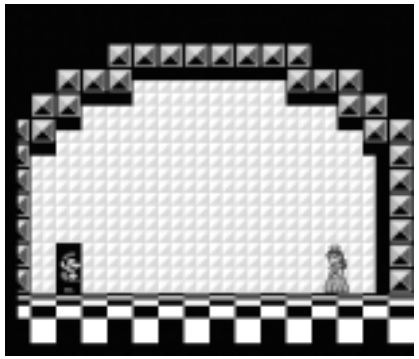

Fig. 4-6

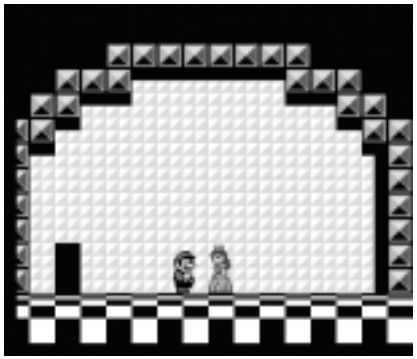

Fig. 4-7

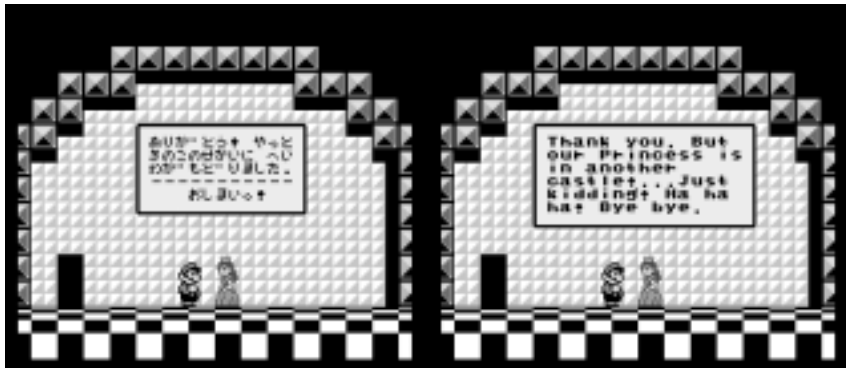

Fig. 4-8

With this, the same curtain that rises at the very beginning to reveal the game's title screen now drops (Fig. 4-9), and we see a series of drawings representing the game's eight worlds (Fig. 4-10) before the curtain finally falls and we see the "The End" title (Fig. 4-11). The rising and falling curtain adds a theatrical element and reinforces the beginning/middle/end structure. Due to the game's length and difficulty, the player has probably seen the curtain rise far more often than he has seen it fall, which makes the final curtain fall even more gratifying.

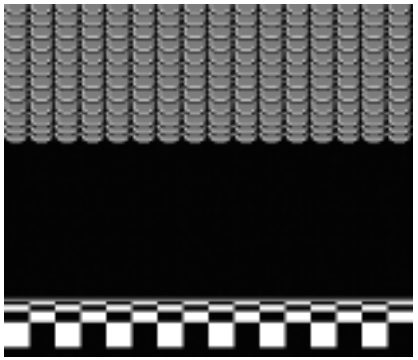

Fig. 4-9

Fig. 4-10

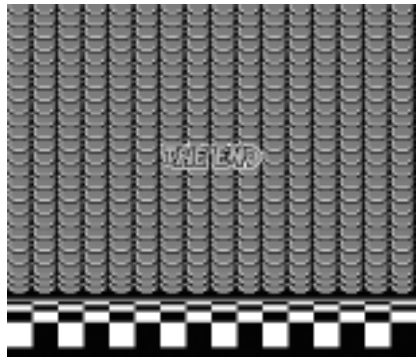

Fig. 4-11

*Super Mario Bros. 4: Super Mario World**

The New Hardware: *Super Mario Bros. 3* started the Famicom boom all over again in Japan and the US, but by the time it was released, Sega's Mega Drive and NEC's PC Engine had been released worldwide, and the Famicom was starting to show its age. By 1990, Nintendo could hold out no longer and released

* The "Super Mario Bros. 4" portion of this game's title was dropped in the United States. Nintendo quite often changes the names of its games for different territories.

the 16-bit processor-powered Super Famicom. Only two games launched with the system, but one of them was Miyamoto's *Super Mario World*. Game and system sold out immediately, with demand vastly outpacing supply.

The Game: With *Super Mario World*, Miyamoto and the Mario team (which had by then expanded to sixteen people) had a far more advanced game console to work with. This meant that there could be more detailed, colorful artwork and expansive play areas, and cinematic sequences could be longer and more fanciful. Mario could revisit any world he had previously completed; and indeed, he had to, because most levels had multiple "exits" that would lead to new and sometimes super-secret areas.

The final fight against Koopa is also more intricate and lengthy (Fig. 5-1). This time Mario must pick up the little, robotic Mecha-Koopas that Koopa throws from his Clown Copter and hit Koopa in the head with them. Each time Mario knocks out Koopa, he disappears and the Princess emerges from the copter for a second to throw Mario a Super Mushroom as she screams for help (represented, as in *Donkey Kong*, with the text, "Help!" above her head). When Koopa is defeated, the Princess is dumped from the copter, which spins into the horizon with Koopa still inside. The Princess walks over to Mario and gives him a congratulatory kiss (Fig. 5-2). A short text message confirms that Mario's adventure is over (Fig. 5-3), but the ending sequence has only just begun.

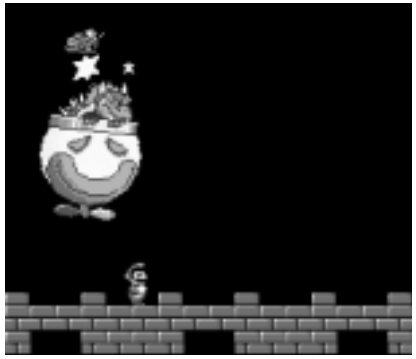

Fig. 5-1

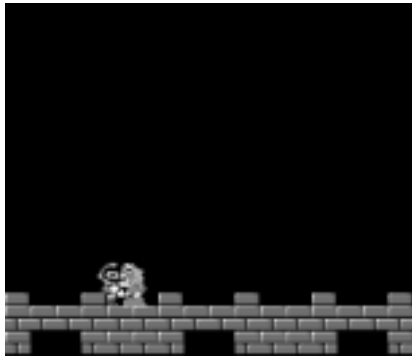

Fig. 5-2

Fig. 5-3

First, we see celebratory fireworks (Fig. 5-4), ending with a large, heart-shaped one (Fig. 5-5)—have Mario and the Princess fallen in love? A movie-like credits sequence follows, underneath which we see Mario, his dinosaur friend Yoshi, and the Princess riding back to Yoshi's house, followed by the eggs that Mario has collected along the way (again, by defeating Koopa's seven children) (Fig. 5-6). When they arrive back, we see a colorful, vibrant scene showing the eggs hatching, and Mario and the Princess wave good-bye to the player (Fig. 5-7). But the endgame continues: a lengthy 'cast' sequence presents all of the enemy characters in the game and names them, ending with Koopa and his children (Fig. 5-8). At last, the "THE END" screen appears, accompanied by a detailed, *manga*-like portrait of Mario, Luigi, and the Princess (Fig. 5-9).*

* This *amazed* me as a child—absolutely *amazed* me. I was so in awe of what the hardware could do, of course, but beyond that I was just stunned at how much this illustration added to the characters and to the world behind the games. Looking back, this picture was probably what inspired me to draw comics based on the world of the Mario games.

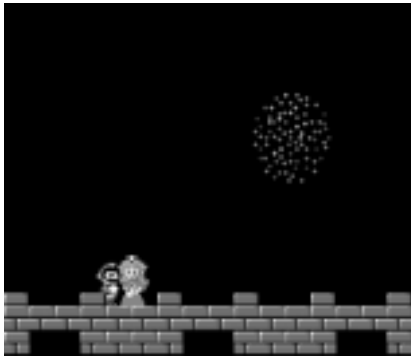

Fig. 5-4

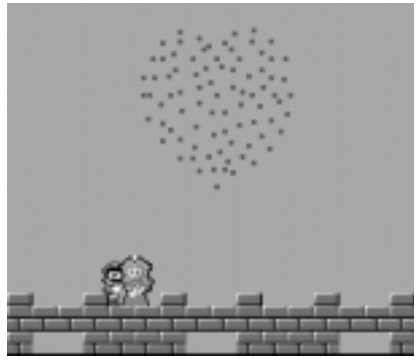

Fig. 5-5

Fig. 5-6

Fig. 5-7

Fig. 5-8

Fig. 5-9

This ending sequence, like that of *Super Mario Bros. 3*, calls attention to the beginning of the game. When Mario starts his adventure, the first place he enters is Yoshi's House, where he finds that Yoshi has gone out on a quest to rescue his friends (the unhatched eggs). By bringing the action back to the beginning of the game, Miyamoto again sets up a definite sense of completion, of the player having come full circle.

Super Mario 64

The New Hardware: By 1996, Nintendo was, for the first time, in trouble in its home country.* The 16-bit era was ending and Nintendo faced real competition in the "next-generation" hardware front from, of all companies, Sony. Their PlayStation was running neck-and-neck with the Sega Saturn in Japan, and it was making inroads in the US. The PlayStation and the Saturn were CD-ROM game systems, but Nintendo decided to stick with cartridges for its Nintendo 64, named after the machine's 64-bit graphics processor. This riled game developers and caused quite a few of them to take their popular Famicom and Super Famicom game series to the PlayStation and Saturn. That left the Nintendo 64 standing only on the quality of Miyamoto's games—which were consistently brilliant.

* The Super Famicom was the system of choice in Japan, but clever marketing and a successful lineup of sports games gave Sega's Mega Drive (Genesis) an early lead in the US.

The Game: *Super Mario 64* took advantage of the Nintendo 64's advanced graphics processing power and was one of the first 3-D adventure games. Hailed by one magazine as "The Best Game Ever Created," *Super Mario 64* was truly a quantum leap in game design. *Super Mario Bros. 3* and *Super Mario World* added elements of non-linearity to Mario's adventures, but with its 3-D freedom of movement, *Super Mario 64* was like no adventure Mario had ever encountered. Just running through levels to find the 'exit' was no longer the goal. Mario had to explore the worlds around him and accomplish many, varied tasks to find 120 secret stars scattered to the four corners of the Mushroom Castle.

After earning at least 70 stars, Mario could face Koopa, this time by running *around* him, grabbing his tail, spinning him around, and throwing him far away, into a spiked bomb on the edge of the playfield. After the final battle, Mario is transported outside the Mushroom castle, where he began his adventure. The giant stained glass portrait of the Princess, visible from the game's opening, is revealed as the Princess' magical imprisonment. She floats down from the sky, thanks and kisses Mario, and brings him back inside the castle to bake him a cake—the Mushroom retainers are again present. The scene is "acted" with recorded voiceovers for Mario and Princess Peach, and the "camera" captures the action from many different angles. As one of the first 3-D games in which such "camera work" could be done, this scene showed how far film-like video games had come and offered a glimpse of the future. Again, a lengthy credits sequence follows, and an intricate "THE END" title screen closes the game.

Super Mario Sunshine

The New Hardware: Having given up their first-place position to the Sony PlayStation, Nintendo cut its losses as soon as possible, pulling Nintendo 64 support in early 2001 to concentrate on launching the Nintendo GameCube, the company's first optical disc-based system*, starting in the fall of that year. Nintendo built the GameCube from the ground up to connect to its newest portable system, the Game Boy Advance—Nintendo had never lost its commanding lead in the portable market.

* Specifically, the GameCube uses 3.5 inch optical disks, which are much smaller than the standard DVDs used by the PS2 and Xbox. Those two systems can play DVD movies, DVD audio, and audio CDs, but the GameCube cannot. In 2002, Panasonic released the Q, a combination GameCube and DVD player, in Japan only. Sales were low because most GameCube owners already had a DVD player, whether standalone or built into another game system.

The GameCube launched a week prior to the Microsoft Xbox but a year behind the PlayStation 2, and even this was too early for Nintendo to supply a Mario game at launch time. Nearly a year later, *Super Mario Sunshine* was released worldwide.

The Game: *Super Mario Sunshine* represents yet another location change for Mario's adventures. Now, instead of taking place inside Mushroom Castle or Dinosaur Land, the crew travels to the tropical Isle Delfino. The story is told in lengthy cinematic sequences that depict Mario, Peach, and friends traveling by plane to the island. Other such sequences are sprinkled throughout the game, telling a similar story to the earlier titles but now more fleshed

out with character dialogue and vibrant animation. Interestingly enough, the dialogue is spoken in English even in the *Japanese* version of the game, subtitled in Japanese.

The tropical, water-covered setting was necessary for Mario's newest game play innovation, a water-shooting backpack called F.L.U.D.D. Mario could use this to spray a jet of water at enemies or rocket skyward with a powerful blast, but its main function, the reason why Miyamoto and team built the game around the device, is that it let Mario hover in the air for brief periods. This was done in an attempt to solve the difficulties of jumping in a 3-D game. One of the chief complaints about *Mario 64* and, indeed, most other 3-D platform games, was that it was too difficult to accurately judge jumping distance. Having the ability to hover and change direction in midair allowed more accurate jumping and made *Sunshine* easier to play, although the learning curve for using the water pack was a bit steeper.

So it is not only the story that changes throughout each Mario game, but also the elements of control: the new moves and abilities given to Mario, and the changes in the actual game controller. *Donkey Kong Junior* added a new dimension to the avoid-all-enemies game play by allowing Junior to increase his speed by climbing up two adjacent vines at the same time—of course, doing this would make him twice as vulnerable to enemy attack, since enemies slid down only one vine. This was a choice that *Donkey Kong* players didn't have to make. With *Mario Bros.* the core game play changed completely, from avoid to conquer; by knocking the enemies out from the lower levels and then kicking them straight on, they were defeated. Also, *Mario Bros.* was the first and last game in the main series to offer simultaneous two-player game play. Mario and Luigi shared the same screen and could either help or hinder each other; the players could cooperate or compete.

Super Mario Bros. introduced dozens of new moves for Mario, the most important being the power-ups that made him grow taller, shoot fireballs, or be temporarily invincible; collecting coins for extra lives; jumping on enemies' heads; breaking bricks; entering pipes to subterranean secret worlds; climbing beanstalks to find *heavenly* secret worlds; finding bricks with hidden coins; kicking turtle shells to defeat more enemies…and on and on. *Super Mario Bros. 2* introduced upside-down pipes and strong winds that blew Mario back; warp zones that worked backwards; and a differentiated Luigi who jumped higher and ran faster than Mario but was more likely to go careening into a waiting enemy or trap.

Super Mario Bros. 3 introduced worlds that could scroll up and down as well as back and forth, allowing Mario to retrace his steps to find more hidden secrets. This added an element of non-linearity; similar was the map

screen that gave Mario a limited choice as to which area to tackle next. Between rounds he could play card games for extra powers or visit Toad's house for free gifts. Mario had a stock of extra items on the map screen to use before entering difficult levels…and on and on.

Super Mario World gave Mario even more freedom. He could revisit any level he had previously conquered. Many of them had a hidden goal that would lead to a brand new level, which itself might have two exits; he could ride on Yoshi the dinosaur, who could eat enemies with his long tongue…and on and on. *Super Mario World* was so vast, so sprawling that Miyamoto and team included a lithium battery in the cartridge that would save the player's game in progress. This concept was pioneered with Nintendo's role-playing adventure *Legend of Zelda* but became standard fare for nearly all genres soon after the release of *Super Mario World*.

With *Super Mario 64* came a brand new controller. The controller for the Super Famicom featured unique "shoulder buttons" where the index fingers rested on top of the unit. These L and R buttons, for *Super Mario World*, let Mario advance the screen to the left and right to see what was up next: an interesting if impractical concept. The main controller for the Nintendo 64, however, featured something revolutionary for a console game system: an analog joystick.

Arcade joysticks and the Famicom D-pad were digital; when you pressed the pad or stick to the right, the signal was only "on" or "off," regardless of how hard you pressed the buttons. But the analog joystick measured how far you pushed it. For Super Mario 64, pushing the joystick a tiny bit would make Mario tiptoe, pushing it halfway would make him walk at normal speed, and all the way would make him run at full speed.*

* Nintendo kept the controller secret for a very long time, fearful that rivals would copy the analog stick if they knew about it. Their fears were well founded; once the Nintendo 64 debuted, Sega and Sony immediately started work on their own analog joysticks. (Sega actually made it to market first with theirs.)

With the Nintendo GameCube, Nintendo refined their controller even more, using a unique button layout, a more comfortable stick, and analog L and R buttons. These triggers worked with the water-shooting pack in Mario Sunshine, enabling Mario to shoot just a little water or a firehose-style blast that knocked enemies (and sometimes Mario) backwards.

An in-depth discussion of the new moves, abilities, and secrets found in each new Mario game and the controller innovations that worked in tandem with them would *literally* fill a book on its own. And because we don't want to do that just yet, perhaps we should take a brief look at Miyamoto's *other* world-famous, consistently groundbreaking game series.

THE LEGEND OF ZELDA

Zeruda no Densetsu (*The Legend of Zelda*) is only *slightly* less internationally recognized than the Super Mario games. The original *Legend of Zelda* was released on the Famicom Disk System in 1986 and was unlike any Famicom game before it. For *Zelda*, Miyamoto drew on his store of childhood memories and created a vast world called Hyrule, filled with green forests, stony mountains, and dark, labyrinthine dungeons. Rather than being on the forced, straight-line path of a Super Mario game, the player was able to move around the world of Hyrule at will, going from place to place in any of the four compass directions. The player had to find important items and solve puzzles to conquer the nine dungeons and finish the adventure.

Not only was *Zelda* the largest game that had ever been created for the Famicom, it was one of the first Famicom games that did not end when the player died. When a player ran out of Marios, he had to start again from the beginning. Not so with *Zelda*—the player could save the game to the writeable portion of the Disk Card and start again where he left off. *Zelda*'s world was so expansive that the player *needed* to save the game and start again; it simply couldn't be completed in one sitting.

Zelda "was so different that we were afraid that people couldn't figure out how to play," recalled Nintendo of America president Minoru Arakawa. Nintendo's own testers needed ten hours or more to truly start enjoying the game, and even then they needed to be guided through the process by Nintendo's Japanese employees. Nintendo of America gave America's young (and not-so-young) adventurers the next best thing: a 1-800 telephone hotline that they could call to obtain advice. By 1990, the number of people staffing those phone lines had grown from four to two hundred.[47]

Still, Zelda's plot and characters were only slightly more refined than Donkey Kong's. The player's character was named Link, a small elven boy charged with

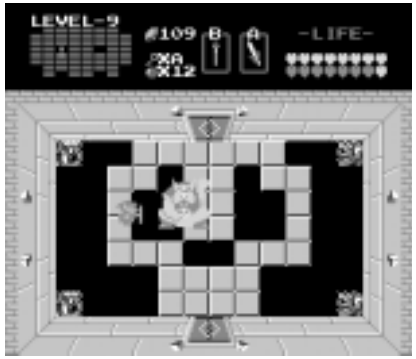

Fig. 7-1

Fig. 7-2

finding the eight pieces of the Triforce—a mystical item of unknown power—and rescuing Princess Zelda from the evil Ganon. The story was conveyed, as in the first Super Mario games, via sparse text boxes and limited character animation. After the decisive battle with Ganon (Fig. 7-1)—which could be won only if Link searched out the Silver Arrows in the game's final dungeon—a nearly motionless Princess Zelda thanked Link and told him that "this ends the story" (Fig. 7-2).

A brief credits sequence (Fig. 7-3) then followed, something that very few games had in 1986. Even well into the 1990s, it was rare to see a video game with a full credits sequence featuring the real names of the designers. This was because video game company management didn't want their designers' names known lest they get hired away by competitors. This was less of a problem in Japan because most employees stay at the same company for life. Even so, Miyamoto and his co-designer were referred to by pseudonyms; Miyamoto was referred to as S. MIYAHON—the *kanji* for *moto* can also be pronounced *hon*.

Fig. 7-3

The *Zelda* sequels and remakes progressed in much the same way as the Mario games did. The basic *story* hardly changed, but the *plot* was always embellished upon with new characters, plot twists, and expanded cinema scenes.* The Super Famicom game, *The Legend of Zelda: A Link To The Past* (directed by Kensuke Tanabe) didn't just start in the middle of the action, with the only back-story in the game's instruction booklet. Instead, it began with a lengthy story introduction in which Link gets out of bed on a stormy night and sneaks into Hyrule Castle. This is not played out automatically, the player *controls* Link during these scenes.

* A quick film-studies lesson: the story is the events of the narrative (Using an array of weapons, a boy rescues a princess from the clutches of a horde of demons.). The plot is exactly what happens and the order in which it happens (boy enters cave, is given magical sword, kills monster, finds money...).

Similar story scenes abound throughout the game. The most impressive was the ending, which began with a lengthy story scene featuring Link and a rotating, three-dimensional Triforce, juiced up with the new game system's processing power (Fig. 7-4). This was followed by a succession of brief story scenes showing the various ways that peace had returned to Hyrule (Fig. 7-

5). Finally, a credits sequence listed the full names of all involved (Fig. 7-6). Said credits sequence also featured a moving, orchestral-sounding score that was, at the time, a giant leap for videogame soundtracks.

Zelda II: The Adventure of Link is the black sheep of the series, abandoning the original game's top-down action for side-scrolling sword fighting mixed with RPG game play. No other Zelda games using this style have ever been produced.

Fig. 7-4

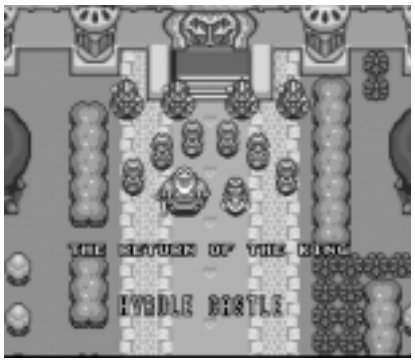

Fig. 7-5

Fig. 7-6

Much like *Super Mario 64*, the first N64 incarnation of Zelda, *The Ocarina of Time*, introduced a full 3-D world. Of course, because *Zelda* was more of an RPG-style adventure game and less of an acrobatic, athletic action game, the move to 3-D had less of an impact. Futhermore, previous Zelda games already featured non-linear worlds, which meant that Link already had the freedom to roam about, unlike Mario. *Ocarina* featured numerous cinematic scenes, all rendered in 3-D graphics and thus they were more movie-like than practically any Nintendo game before it.

Having already accomplished a masterpiece *Zelda* game with *Ocarina*, *Majora's Mask*, the second N64 Zelda game, took the series for a drastic turn. Miyamoto had handed over the director's chair to his right-hand man on the series, Eiji Aonuma, who concocted a brilliant game play system. Like the movie *Groundhog Day*, the world of the game was caught in a constant three-day loop. Every three days, which took about an hour and a half of game play time, the game world would reset, forcing Link to lose all of his progress. He had to steadily accomplish small tasks before the world ended again.

Although it had its happy and silly moments, *Majora's Mask* was a remarkably dark and sometimes depressing game. The world's inhabitants started each day not knowing what was to come, but by the end of the third day the entire city had descended into chaos—people's true natures began to come out, families and friends ripped apart. And even when Link could solve their problems, there was, until the very end of the game, nothing he could do about it; at the end of the third day, everyone died. (See Chapter 10 for more.)

After *Majora's Mask*, Aonuma moved on to direct the first GameCube installment of the series, *Kaze no Takuto* (Baton of the Wind, called *Wind Waker* in the US). In sharp contrast to the realistically-designed scenery and characters of the Nintendo 64 games, *Wind Waker* used a graphical style known as cel-shading ('toon-shade' in Japan). This made the game look remarkably like an *anime* film. But although the new Link looked happy and childlike, the places he explored were still dark and dangerous, creating an artistically brilliant contrast.

Then, just as series fans were getting used to the cel-shaded look and anticipating that it would be used again for the next installment in the series, Aonuma and Miyamoto threw yet another curveball. They showed off the new *Zelda* game for the first time in the spring of 2004, and it was not cel-shaded nor cartoonish. It was a dark, violent, gritty, and realistic world inspired more by *Lord of the Rings* than *Astro Boy*. A grown-up Link galloped on his horse, slashing the heads of grotesque monsters. The series was again about to take a drastic turn.

When asked in a 1995 interview if he thought his games were "humorous," Miyamoto attributed it to "us Kansaiites. Kansai is the area covering Osaka, Kyoto, and several other cities. The Kansaiites make much of wits, explicit jokes, and are proud of making people laugh. The Kansaiites feel like cracking a joke or two even during a very serious talk."[71] Although *Zelda* games featured a few humorous scenes and characters, the tone of the games was much more serious than that of the Mario games. The opening and closing screens of the *Zelda* games tended to feature towering titles and somber

music, or, once the technology allowed it, sweeping orchestral scores. If the Mario games followed from and expanded upon the comedic aspects of Miyamoto's *Donkey Kong* story, then the Zelda series was the serious, dark battle between good and evil.

That his work could even in 1986 be classified into serious, lighthearted comedies, and dark, intense adventures shows just how much Miyamoto changed video games.

FUTURE GAMES

Time marches on, and things change. Miyamoto is still recognized as one of the world's leading game designers, garnering a nomination, but not a win, for Best Game Designer in WIRED magazine's 2002 Rave Awards. New Mario and Zelda games are still the highlights of Nintendo's game lineup, but their release dates are no longer the earth-shattering events they were in the company's prime. *Super Mario Sunshine* was barely a whisper in the US compared to the tornado that was *Grand Theft Auto: Vice City* for the Sony PlayStation 2, which racked up millions of dollars in *pre-sales* before its October release.

The *Grand Theft Auto* series, developed in London by Rockstar Games, is a far cry from Miyamoto's colorful wonderlands. My young cousins (then 14 and 10) introduced me to *GTA3* one summer and showed me how your character, a gangster-in-training, regains his health in critical situations. Super Mario collects golden coins to fill his health meter; Grand Theft Auto's main character has to do a little more legwork. As I watched, the boys hijacked a car, killed the driver, sped immediately toward the red light district, solicited a prostitute, pulled into a dark alley—"the car has to be totally hidden or she won't do it with you," they tell me—then watched the car bounce up and down as the girl moaned and the player's health replenished.

Fully restored, the characters exited the car. As the younger yelled, "Kill the hooker!" his older brother guided the character to beat the girl to death with a baseball bat. Blood pooled around her slinky red dress. Then, a distinctly video-game-like thing occurred: a wad of bills popped up and rotated on the ground, gleaming like a 1-Up Mushroom—it was the fee that the character had just paid for her services. The kids then directed the character to take the cash and dash off, hijacking a different car now, to throw the police off the trail.

"I am not sure whether that sort of extreme subject matter is always appropriate," said Miyamoto in a WIRED interview. Nonetheless, *Vice City* designer Leslie Benzies won the WIRED award that Miyamoto lost. There

was little argument that he deserved it; critics maintained that it wasn't the extreme violence and sexual situations that made the *GTA* series fun. Rather, it was the polished game play interface. Not to mention the fact that, as one American game designer put it in the same article, "*Grand Theft Auto* is basically a rip-off of *Zelda*, because *Zelda* invented massive-world games that let players explore freely, rather than following a linear path. Miyamoto innovates, so he's pushing the form. End of story."[49]

Miyamoto has always been thinking far ahead of his time. Many of his ideas for the original *Donkey Kong* had to be scrapped because they simply couldn't be done yet. In a 1991 interview, when *Super Mario World* was released in the United States, Miyamoto revealed that he wanted to have Mario ride a dinosaur like Yoshi ever since the first game in the series, but the technology wouldn't allow it. In the same interview, Miyamoto conjectured, "Who knows what Mario will look like in the future. Maybe he'll wear metallic clothes!"[50] Five years later, in *Super Mario 64*, Mario could in fact wear metal clothes that let him walk on the bottom of pools of water.

Shigeru Miyamoto relaxes with SimCity creator Will Wright, circa 1989. Photo credit: Jeff Braun.

And those who had seen the 1986 anime *The Great Plan To Save Princess Peach* knew that Mario defeated Koopa at the end of that film by grabbing him by his tail, swinging him in a circle, and letting go. This preceded the identical Koopa fights in *Super Mario 64* by an entire decade. One wonders how many *new* ideas Miyamoto has had recently, and how many of the features in every new Mario adventure have been in Miyamoto's head long before technology allowed him to implement them in a game. When Miyamoto closes our interview by talking about wanting Nintendo to go into the robotics field so that he can create a giant robotic Donkey Kong suit and stomp around in it as "some kind of a part-time job," it is hard to know if he is joking.

Said Miyamoto at the 1999 GDC, "Many people have said that I should make movies. But I don't feel like a moviemaker, I feel like a creator of fun. For me, game design is like expression through music or poetry—while I'm always trying to hit on new ideas, I place a lot of importance on tempo and sound effects. The designers that use rhythm are successful—when I hold the controller and set the tempo, I feel like I'm making my own personal game…

We use cinematic sequences to stimulate players' emotions— But we position these sequences as only one part of development. We opt not to use our limited time and energy on pre-rendered cinematics."

Indeed, although Miyamoto pioneered the use of narrative in video games, the games he directs do not put the focus on telling lengthy, in-depth stories. So many of his games follow the same man-loses-princess, man-finds-princess story with little variation. Miyamoto has said that he would rather concentrate on producing games with unique and deep game play. Of course, Miyamoto is head and shoulders above every other game designer in this area. Miyamoto's contribution to cinematic gaming is most profoundly felt in his earliest titles, because he was the first to create games with beginning/middle/end narrative structures and non-interactive cinematic scenes, and he was one of the first to create original, if simple, cartoon characters for his game worlds.

To see the later development of the cinematic Japanese video game, we turn our eye to the Japanese RPG.

■ ■ ■