Shigeru Miyamoto

Super Mario Bros., Donkey Kong, The Legend of Zelda

Jennifer deWinter

Bloomsbury Academic
An imprint of Bloomsbury Publishing Inc

BLOOMSBURY
NEW YORK • LONDON • NEW DELHI • SYDNEY

Contents

2

Spatial Narratives: Characters in their Worlds

Early in the history of video games, arcade cabinets offered players a series of discrete game boards. For example, *Asteroids* (Atari 1979) provides the player with a single screen in which a player controls a triangular ship that must shoot asteroids into smaller and smaller chunks without getting hit. Or for a more complex game, consider *Pac-Man* (Namco 1980), a game that Miyamoto holds in high regard as one of his favorite games. *Pac-Man* provides players with a series of discrete mazes through which the player must navigate, eating balls, avoiding ghosts, and eating power balls to be able to eat those same ghosts. While this game does provide players with multiple levels, each is separate from the other. In fact, other than an imperative to live and clear boards, narrative was not introduced into the Pac-Man universe until the 1982 release of *Ms. Pac-Man* (Bally Midway, Namco), and the narrative was encapsulated in cut scenes between maze types: "They meet," "The chase," and "Junior." I do not want to dismiss this evolution in gaming history; *Ms. Pac-Man* is the first game to use cut scenes. However, the levels that players progressed to were still isolated. Meanwhile, in the home console market, *Adventure* (Atari 1979) provided the player with a map game in which players had to collect keys, fight dragons, and solve mazes. Yet this game was criticized for rudimentary graphics and unbalanced challenge over the course of gameplay. And it is here that Miyamoto's games helped to shape the industry: He provided games that were spatially connected to provide players with an integrated play experience that was visually polished and accessible for both short and long play sessions.

In this chapter, I examine Miyamoto's use of space and maps to create narratives, build worlds for characters, and provide players with challenging play experiences. In the history of video games, I argue, this evolution in the use of narratives shaped the types of stories that games provide players, creating spaces for exploration and surprise. Indeed, in responding to an interview question concerning the secret to a great game, Miyamoto says: "I think it has to do with balance. My formula for success is that 70 percent of the game should have to do with objectives, and the rest should be secrets and exploration—things such as burning trees to find a hidden dungeon entrance link in the first Zelda game" ("The Legend of Miyamoto" 1998, 52). This spatial formation creates two types of narratives in Miyamoto's games (and subsequent games influenced by this approach). The first is a narrative that unfolds as players progress linearly through the game, such as *Donkey Kong* (Nintendo 1981) or the side-scrolling variants of the Mario games. The second is a narrative that is layered with both linearity as defined by objectives (find the hidden key) as well as nonlinear idiosyncratic play that each gamer introduces into the unfolding of the plot. The nonlinear play allows for different experiences of space because players traverse the map in their own ways, different emotions that can include boredom, frustration, joy, or optimism because of how players are able to navigate or interpret challenges, or different amounts of time on task because of luck or skill.

What holds these games together is not a series of levels that are connected only through a high score (although the leader board is still there with some of the games, so this does still play a role); it is the flow between each level, a purposeful movement through space. While Miyamoto often uses the analogy of playgrounds or nature, he does spend time talking about building worlds that make sense to characters. In other words, he creates characters that have special abilities and then he creates environments that make sense for that character (Mario can jump, so the world includes platforms for jumping, for example). We see this again and again in Miyamoto's franchises, such as Donkey Kong, Mario, Zelda, Kirby, and even Pikmin and Nintendogs. This type of world building, further, can account for the types of player immersion and personal investment that players often felt in games like *The Legend of Zelda*, a game in which players slowly unfold the story through the process of spatial exploration—a topic that I will take up later in this chapter. First, however, I turn to *Donkey Kong* to explore an early example of this linked landscape.

Donkey Kong and climbing the building

In Chapter 1, I discussed *Donkey Kong* at some length, partially because it is part of what enabled Miyamoto to become a game designer and partly because it is the first example that encompasses many of his design practices. I will take this game up again here to consider the beginning of spatial storytelling. When Miyamoto was originally given the challenge of converting the *Radar Scope* (1979) cabinets, he conceived of *Donkey Kong* as a side-scrolling game. However, the hardware that was available in the *Rader Scope* cabinets would not support side scrolling. This material limitation required some rethinking of the original design so that the eventual *Donkey Kong* would be comprised of four screens that represented different 25-meter levels of a steel structural building, making the total building 100 meters tall. Interestingly, Miyamoto's team also had to figure out what to do with the "Fire" button on the *Radar Scope* cabinet. In an Iwata Asks interview, Miyamoto explained that they created a scenario that asked what a character would do if a barrel were coming toward it. The answer: Jump. Without that extraneous button, Jumpman would probably not have jumped (in fact, early in development, he was called Mr Video because he still lacked the ability to jump) ("Mario Couldn't Jump at First" n.d.).

The question then raised was what goal would make sense for Jumpman, and the answer was to go up. While early iterations of the game experimented with mazes (probably inspired by Miyamoto's respect for *Pac-Man* and the market success of that same game), the team eventually abandoned that because of the difficulty of marrying jumping with mazes. Thus, the team decided to make Jumpman climb. In this final product, we can see the combination of space with narrative. When players approach the game, they are greeted by the high-score page, indicating that scores are the win condition for the game. True to form, winning can be evaluated only on the basis of player score; there is no win screen, no complete game.

The game starts with a clear call to action within a game narrative. What I mean by this is that some games start and have the player figure out what needs to be done whereas others tell the player to complete a task in writing on the screen. Almost all arcade games provide an objective and directions for gameplay on the cabinet itself as a paratext to the video game. In *Donkey Kong*, the player puts a quarter in to start the game and then is greeted by sinister-sounding music, reminiscent of early cinema organ music used to identify the antagonist. Donkey Kong takes Lady and climbs a ladder up to the top of the screen, puts Lady down at the very top, and jumps to break the ladders. Then the screen prompts the player: "How high can you get?" with a meter-based measurement offered. In Figure 2.1, I describe each level with its corresponding image. The levels are inverted, however, to recreate the tower, with level one at the bottom and level four at the top.

Throughout playing the game, Lady calls for help, and Donkey Kong is obviously trying to thwart the player. The love triangle acts to provide rudimentary motivation within the storyline, and the player has a clear narrative role as the protagonist. This is not an original storyline, however; *Donkey Kong* is at best a simple adaptation of the Popeye storyline that Miyamoto was originally planning—Popeye, Olive Oyl, and Bluto. What Miyamoto carefully recreated in these characters was a sense of comedy. The Donkey Kong character—a large and goofy ape—is not scary and wasn't intended to be scary. This is why this same character can appear in other games as a playable character or part of a team. Miyamoto even wanted the name to be familiar yet whimsical as well. He chose Donkey because donkeys are stubborn and Kong because of the obvious similarities with King Kong. In many ways, this invokes multimedia intertextuality with two other established intellectual properties, adapting them for new uses, again common in Japanese business practices. As *Donkey Kong* ascended in popularity, Universal Studios clearly did not share an affinity for this sort of adaptation, and the company filed suit against Nintendo for *King Kong* trademark infringement ("King Kong Toppled" 1984, 19). Universal eventually lost the suit even though the King Kong reference is there to see. However, the experience of the game is not like the movie. The movie is about fear and saving the girl whereas *Donkey Kong* is not just about getting the girl; it's about the action of climbing the skyscraper to get the girl.

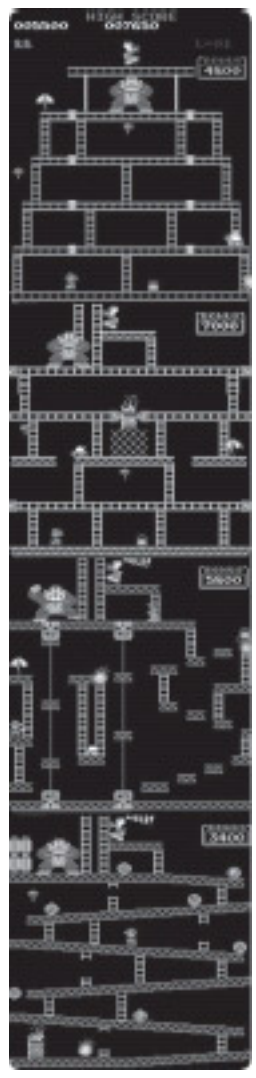

Figure 2.1 Donkey Kong levels, showing the vertically spatial storyline and gameplay.

Screen 4 (all the way up to 100 meters): In the long fall level, the visuals let players know that they are at the top of the building: the beams taper off into a triangle. The purpose of this level is to remove the rivets so that Donkey Kong falls from the building, all the while avoiding the flames that stalk the level. Lady and Jumpman are reunited at the end with a heart over their heads. And then the game starts over again.

Screen 3 (meters 51–75): This time, Jumpman must avoid pies (or coal) rolling on conveyor belts, climb ladders, and move through those same conveyor belts to get to Lady. One last time, Donkey Kong runs with Lady.

Screen 2 (meters 26–50): Jumpman starts on a platform surrounded by elevators. He must get to the top once again by using a combination of ladders and elevators. He must avoid getting crushed between an elevator and the platform and still manage to avoid fireballs. Again, when he reaches the top, Donkey Kong climbs with Lady again.

Screen 1 (the first 25 meters): Jumpman starts at the bottom and must go up seven stories of sloped steel beams and ladders to get to Lady. Meanwhile, Donkey Kong throws barrels, which can kill Jumpman if they come in contact. Further, the barrels can burn in oil, which releases fireballs that chase Jumpman. Jumpman can get the hammer and score extra points by destroying barrels. The level ends when Jumpman reaches the top and Donkey Kong grabs Lady to climb up to the next level.

What can be seen in this initial game is a foreshadowing of Miyamoto's early design work, and some of this may be accidental because of the limitations placed on the original *Donkey Kong* design. Had Miyamoto been able to design a game that was a series of mazes like *Pac-Man* or a sidescroller like *Pitfall* (Arari 1982), he may not have imagined a vertical map. The narrative movement through space, furthermore, provides rising action, in this case literally. In *Donkey Kong*, we can see evidence of the most basic form of cinematic three-act structure, with a call to action, rising action with a series of reversals, and resolution (Trottier 2014). While Kohler claims that *Donkey Kong* is the first game to tell a narrative story from beginning to end (or from bottom to top), I would argue that what we see here is the narrative being used to outline the objectives in a way that is cinematically integrated into the video interface. And cinema matters to Miyamoto, as I will discuss later in this chapter. Thus, as Miyamoto moves into *Super Mario Bros*. (Nintendo 1985) and *The Legend of Zelda* (Nintendo 1986), this practice of using spatial narratives to immerse players and provide the player with objectives and experiences is refined, defining two of the most successful franchises for Nintendo and embedding a place for Zelda and Mario in the hearts of video game players the world over.

Mario and Zelda: Exploring spaces as a core game mechanic

It may seem strange initially to speak about Zelda and Mario in the same section, especially considering that these are generically two different games—one is a sidescroller and the other is an adventure game. However, Miyamoto started working with his teams to start designing these games simultaneously, and Miyamoto has explained that designs from one game turned up in another, and that both games had similar design visions. Miyamoto continued to work closely with Gunpei Yokoi, but for the design and eventual roll out of these two titles, Miyamoto's close collaborators were Takashi Tezuka, who also did not have a background in game design before joining Nintendo, and Toshihiko Nakago, who worked with Miyamoto on *Excitebike* (Nintendo 1984). President Iwata has referred to these three designers, Miyamoto, Tezuka, and Nakago, as the "golden triangle" because so many of the games that they collaborate on go on to be huge successes ("It Started with a Square Object Moving," n.d.).

Writing about game designers as single auteurs with a vision is often difficult because game designers usually work closely with others, including producers who have design input, codirectors, teams of designers, and even hardware designers. Within the old documents released by Nintendo, it is often difficult to identify Miyamoto's work outside of his collaborations. This is fine because it speaks to his process as a designer and one that he admits to often. For example, when asked where he gets design ideas, Miyamoto has said, "I wish I could find somewhere where I could get ideas, but unfortunately, I don't have any specific place. Rather, in my case, I often come up with ideas while I am talking with my programmers and creators" (Fielder 1999). It comes as no surprise, then, that when President Iwata shows an old design map during the interview, Nakago reminisces about watching Miyamoto and Tezuka sitting side by side, drawing simultaneously on the same map ("Bonus Stage 1" n.d.).

Within these two later games, *Super Mario Bros*. and *The Legend of Zelda*, Miyamoto started imagining character and abilities and the designed worlds that would suit those characters. This is an extension of what he did in *Donkey Kong* in which he imagined a game board that would best suit a jumping man. The character and the gameplay affordances made possible by those characters affected the world building, which in turn affected other character creations. Throughout, these two early games are somewhat dreamlike and surreal in presentation as Russel DeMaria notes in the documentary *The Videogame Revolution* (Palmer 2004). Each game refers back in some way to childhood spaces: the playground for *Super Mario Bros*. and the woods and caves that Miyamoto whiled away time in, Sonobe, for *Zelda*. Each game is multilayered, and each hides surprises in space. Thus, a player who revisits levels and spaces multiple times is rewarded. Before delving into examples of these, I turn to the characters of these two games.

Super Mario Bros.

It was never preplanned that Link and Mario would appear as the protagonists of two of Nintendo's most important brands. When the development teams got together, they had to design for the 1983 Famicom (known in the United States as the Nintendo Entertainment System). What the development team knew was that they needed to design a game that utilized the hardware available, and the hardware for the Famicom would adapt the D-pad controller input from the Game & Watch series rather than the joystick of the arcade or Atari 2600. The team started designing a square that moved around in space for the *Super Mario* game using the D-pad for directional input, but the movement enabled eventually would inform *The Legend of Zelda* ("Using the D-pad to Jump"). For the Mario game, the team wanted "a dynamic, athletic kind of game that would be set on land, sea and air and that would feature a large character" ("It Started with a Square Object Moving") while Zelda was meant to be more about exploration. Even though the dynamic movement that would eventually be Zelda was groundbreaking, it did not convey the core concept of the game. For this, Miyamoto used Jumpman—now Mario.

Mario was chosen early in the design process of both *Super Mario Bros*. and *The Legend of Zelda* because the brand proved to be commercially successful. In an interview with President Iwata, Tezuka spoke specifically to this point, explaining that he went over to the head of the Sales and Marketing Division and asked to see sales numbers (amazing considering that he had been with the company for only one year). He looked at the numbers and saw that the *Mario Bros*. (1983) game that Miyamoto designed initially for arcade release continued to sell well on the Famicom one year later. *Mario Bros*. followed the release of *Donkey Kong*, *Donkey Kong Jr.* (1982), and *Popeye* (1982), adapting many of the ideas that Miyamoto used in platformer games ("It Started with a Square Object Moving").

Mario's abilities morphed during these early game iterations. Because of his close working relationship with Yokoi, Miyamoto was convinced by his mentor to allow Mario to fall from great heights without getting hurt—something that Miyamoto was dubious about because he thought that wasn't realistic. *Mario Bros*. also introduced the game mechanic of hitting turtles from underneath and then knocking them away. The knocking away added a level of challenge that wasn't there when all a player had to do was attack from below. In developing *Super Mario Bros*., the team wanted to have a large Mario jumping around the screen. They eventually opted to have a magic mushroom that would enable the character to grow big and maintain Mario's ability to fall without getting hurt (

"The Man Behind Mario" 1991). And Mario could still jump.

With this character in mind, Miyamoto and his team started level designs for his games, and documents and photos that are contemporary of that time show Miyamoto drawing a series of maps for horizontal worlds that Mario could run through, keeping the heart of a fun and energetic game (these can be found throughout Nintendo magazines and on Iwata Asks interviews). However, these were not just horizontal worlds, as can be seen in Figure 2.2, a composite image made up of screenshots strung together. Miyamoto hand-drew these maps in the design process and then implemented them. What can be seen right away is the secret levels that can be found only through exploration.

Figure 2.2 *Super Mario Bros.*'s world map of level 2.1 showing underground level and sky level.

(Screenshot and original composite credit: Ian Albert [http://ian-albert.com/games/super_mario_bros_maps/] Additional image composite credit: Aaron McGaffey)

As can be seen, a person can run through the level, following a linear narrative arc: Start running, don't die, and try again and again to save Princess Toadstool, otherwise known as Princess Peach, from the evil clutches of Bowser. We know the narrative because the book that accompanies the game tells us. The object of the game is not to win, the booklet informs us. Rather, it relies on the narrative for its call to action:

> One day the kingdom of the peaceful mushroom people was invaded by 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 horse-hair 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 the 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! (*Super Mario Bros. Booklet* 1985, 2)

This game focuses on a hero's call to adventure rather than on winning points. Picking up the controller is the moment that the player crosses the threshold to start training, to "maybe" become the hero. This should be a linear call, with tests and setbacks. And it can be. But the space available in *Super Mario Bros.*, the space that Miyamoto created, is more playful, often diverging away from the narrative while still serving it with forced directions and timers. Further, this structure had tremendous influence across the gaming industry.

Many people find it difficult to remember playing the first *Super Mario Bros.* and not knowing about the secret pipes and spaces in midair that would release a vine for climbing, yet the magazines from the 1980s attest to the fact that players did not always know of the secrets hidden in the game. Questions and advice range from "Where are the warp zones in Super Mario Bros. and how do I get to them?" ("Counselor's Corner" 1988, 66) to "How to get to the hidden room in World 3-1" ("Pro's Corner" 1987, 20). Indeed, when *Super Mario Bros. 3* was released, *Nintendo Power* dedicated all of volume 13's content to a strategy guide for the game (*Nintendo Power Strategy Guide* 1990). No other material was covered and no contests were run. While I will speak to challenge in the next chapter, the point here is that the use of space was different, mysterious, and fun, breaking the linearity of objective-based gameplay but not subverting it completely. Here, Miyamoto's analogy of a playground may be used to make sense of these design choices.

Miyamoto often talks about his childhood as providing a firm starting point for his design processes. When asked about his ongoing philosophy about making video games, Miyamoto responded, "I think great video games are like favorite playgrounds, places you become attached to and go back to again and again. Wouldn't it be great to have a whole drawer full of 'playgrounds' right at your finger tips?" ("The Man Behind Mario" 1991, 32). These feelings are well encapsulated in *Super Mario Bros.* and subsequent Mario titles. The colors are bright and attractive. The environment promotes climbing and jumping, and even in underwater levels, the sense of buoyancy is lively. Every time players go in, they can choose to include different aspects into the game. They can choose to warp from one part of the map to another, traversing representational space and opting into a shorter game experience. They can try again and again to get the jump just right on the turtle at the end of World 3-1 to get a large number of free lives. They can explore every part of the world. Thus, when Jenkins (1998) explores childhood cultures and the connections between playgrounds and video games, his analysis is based in large part on Miyamoto's influence on the game industry, interpreting playgrounds into play spaces.

In addition to providing a playground for players, *Super Mario Bros*. is a replayable game. The purpose of the game is not to find out what the end is. In other words, the motive to play is not diminished once the player knows the full storyline. This is a game that shifts the locus of challenge from the game (there is no easy, normal, or hard setting on this game) to the player. As Greg Costinkyan (2013) notes in his book *Uncertainty in Games*, "Super Mario Bros. is practically the Platonic ideal of what game designers call a 'player-skill' (as opposed to 'character-skill') game [that perfect standard that all other copies attempt to achieve]. Luck is not a factor. Strategic thinking is not relevant. Puzzle solving is rarely germane. Success is virtually 100 percent dependent on your mastery of the controls, and your ability to respond to the situation unfolding on your screen with accuracy and alacrity" (20). In his chapter "Everything I Know About Game Design I Learned from Super Mario Bros." Curry backs up this claim and builds on it. According to Curry, this early game had all of the essential elements of game design, making it "the most influential videogame of all time" (n.d.). Without it, he argues, we may not have had such seminal games as *Metroid* (Nintendo 1996), *Sonic the Hedgehog* (Sonic Team 1991), or *Crash Bandicoot* (Naughty Dog 1996).

The Legend of Zelda

While Mario was about playing in the structure of playgrounds, *The Legend of Zelda* developed around a core concept of free exploration, linking discovery to the core narrative of the game. *Zelda* came out a full year after *Super Mario Bros*. even though production was started on them simultaneously (and even though *Zelda* was ahead of *Super Mario Bros*. at one stage of development). Early design ideas for *Zelda* attempted to exploit the Disk System's ability to rewrite data onto the cartridge (Miyamoto 2011, 2).[1] Development continued, and the decision was made to make this a story-driven game. Slightly more than a year after its Japan release on the Disk System, *Zelda* was released to the US market on a cartridge with an internal battery, which enabled saving for the first time on cartridge-based games.

The Legend of Zelda is a groundbreaking game, and this mostly has to do with challenge. The booklet that introduces the game provides a narrative backdrop that is legendary in tone. Like *Super Mario Bros*., the kingdom was invaded by an evil magician—Ganon—and like *Super Mario Bros*., the player must rescue the princess who can return everything to normal. At the end of this textual call to adventure is this phrase: "Can Link really destroy Ganon and save princess Zelda? Only your skill can answer that question. Good luck. Use the Triforce wisely" (*The Legend of Zelda Booklet* 1986, 4). The book then provides the player with a series of hints that compel the player to explore, such as asking her how many labyrinths she has found and suggestions that hints will be provided to solve riddles. Then the imperative: "Don't rush forward too fast! It's dangerous" (8). The game begins, and the player is prompted to put his or her name into the main board so that the cartridge can store the information. This use of storage is a significant advancement in games, allowing players to walk away and then return to continue the same game. More importantly, the storing of the player's progress allowed Miyamoto and his design team to design a complicated game that didn't assume an unskilled and potentially lazy player but assumed that the player would take the time and invest the energy to move forward.

Miyamoto admitted that, at first, he was concerned about the complexity of the game, thinking that it would turn players off of the title. In reminiscing about the release of *The Legend of Zelda* in 2003, Miyamoto explained, "*The Legend of Zelda* was our first game that forced the players to think about what they should do next. We were afraid that gamers would become bored and stressed by the new concept. Luckily, they reacted the total opposite. It was these elements that made the game so popular, and today gamers tell us how fun the *Zelda* riddles are, and how happy they become when they've solved a task and proceeded with the adventure" ("Super Play Magazine Interviews" 2003). These riddles depend mostly on spatial exploration, which drew on Miyamoto's cave adventures from his childhood. He would go out into nature and explore, playing in the densely growing woods. When he discovered a cave, he spent a great deal of time exploring it thoroughly. Thus, when design for *Zelda* began, early documents indicated that it would be a dungeon crawler game. But the team eventually moved it to be multileveled and include aboveground and belowground elements (much like *Mario*). Also, while this is an adventure game, complete with sword throwing and weapons collecting, it is at heart an exploration and problem-solving game.

So many of the puzzles in *The Legend of Zelda* are spatial challenges—finding items in one space (often hidden) and applying those items in another space. Then, once down in the dungeons, the map becomes an element of gameplay, constantly present in the top left corner of the screen (see Figure 2.3).

This game was complicated enough that the *Tips and Tactics* strategy guide was available almost immediately after its initial release, offering more comprehensive maps (but not giving away the ending) and walkthroughs of the puzzles. Perusing old issues of *Nintendo Fan Club News* and *Nintendo Power*, it is interesting to see the number of letters and columns that were dedicated to helping players with the spatial puzzles and cluing in the players to other spaces they may not have known about. One particularly amusing letter appears in a 1988 *Nintendo Fan Club News* Mail Bag section. In it, Marilyn Lee Reed writes:

> Dear Nintendo, This year we acquired the Nintendo Entertainment System with your Super Mario Bros. cartridge. After noticing what great fun Jeff (age 30) was having with this machine, I rushed out to purchase The Legend of Zelda. Since then, Jeff has spoken at the most, six words; his sleeping habits have gone from a normal eight hours to quick cat naps. . . . My husband needs some sort of advice (or map) indicating how to get out of castle five (or is it six?) and into eight (or is it nine?) and on to Death Mountain to rescue this chick called Zelda—fast! While the world is rescuing Zelda, you wonderful people are going to have to rescue Jeff! Please hurry. ("Mail Bag" 1988, 26)

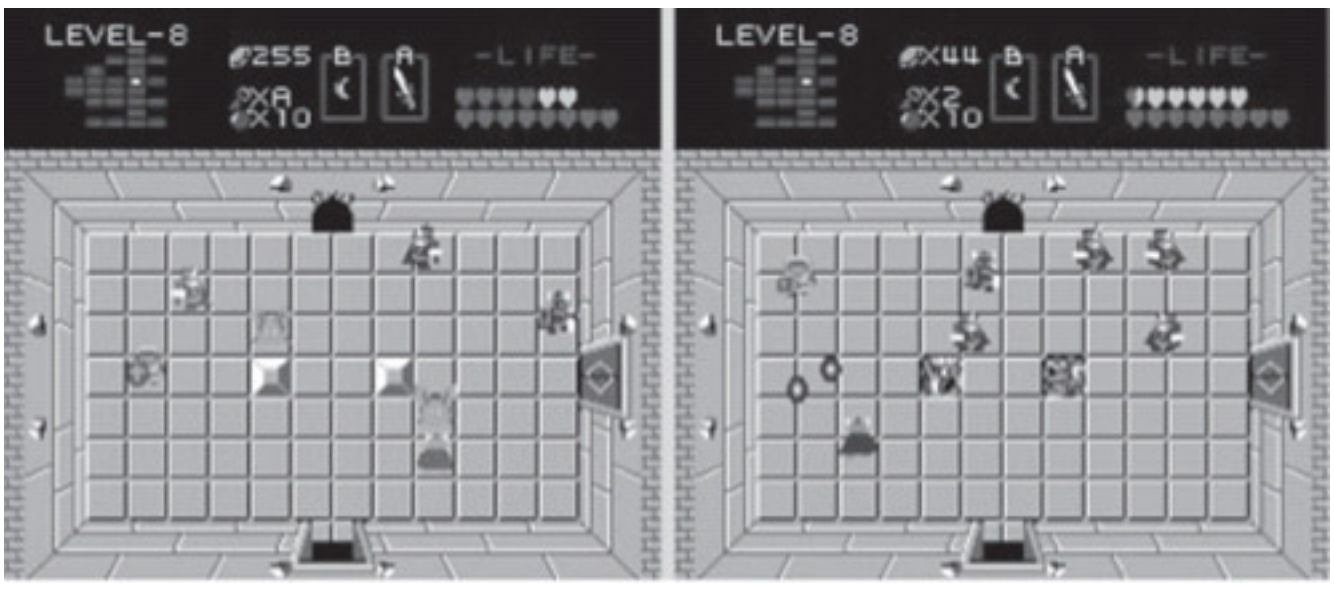

Figure 2.3 Screenshot of *The Legend of Zelda* level 8 dungeon.

In this letter (and many others besides), we see evidence of a key Miyamoto outcome—and one that I will take up later in this book at more length—and that's collaboration. In *Mario*, collaboration could be achieved through multiplayer mode, much like arcade games. *Zelda* appears to be a single-player game, forcing player isolation. However, Miyamoto has explained that he wanted people to go to work and talk about the game, share tips, and build community through communication about experiences. This letter evidences spouses talking but also people reaching out to a broader community—this is a game that is difficult to win without help.

In addition to spatial puzzles, this game is an excellent early example of the type of in-game narrative that Jenkins and Squire (2002) discuss—narratives that are spatially constructed rather than linearly constructed: "Game designers use spatial elements to set the initial terms for the player's experiences. Information essential to the story is embedded in objects such as books, carved runes or weapons. Artifacts such as jewels may embody friendship or rivalries or may become magical sources of the player's power. The game space is organized so that paths through the game world guide or constrain action, making sure we encounter characters or situations critical to the narrative" (70). Of course, these encounters happen. The story unravels as players navigate Link to find objects, collect and spend money, and defeat monsters. The story is the same for everyone—the game ends only when the player collects the three pieces of the Triforce—yet different for each player—the game unravels over different periods of time and in different orders. It is the difference that matters because it is what creates the bond between the players and Link and also what allows story spaces to become places of adventure.

In creating bonds between players and Link, Miyamoto may have unconsciously tapped into Campbell's idea of the Hero's Journey (2008). In this, the hero is part of an ordinary world; he doesn't even have a sword. In taking up the sword in the game, the player is taking up the challenge and shifting from an innocent child to one who must learn the rules and triumph over a series of trials. These trials need the player to be involved, solving puzzles and riddles. This is not a game that a player can win by mashing a button and eventually killing all of the enemies on the screen. Rather, the player must fight and dodge, explore and reexplore, and solve puzzles. This all acts to ensure that the player is an integral part of this world. She doesn't have the ability to save the world—that is up to Princess Zelda—but she can learn how to control Link and use her wits to traverse the map and defeat Ganon. Furthermore, if these games were easy, the probable immersion would be less. Rather, because the player has to invest so much time and intellectual engagement into the world, she is more likely to think about the game when not playing (think about the husband in the letter above). Success comes only after toil, which makes that success all the more sweet. This toil is not capricious, based on luck and whatever fates are programed into the algorithm. There is a logic to it that rewards the player. Miyamoto spoke specifically to this in relation to another game: *Link's Crossbow Training* (Nintendo 2007). He explained:

> The fact is, the journey is really the reward. And there are times when game creators use well-made "rewards" as the excuse. For example, if someone invents an ending that they're really proud of, that they just think is fantastic, then they might end up settling for a less-than-splendid journey. But that's a definite case of getting your priorities mixed up. So with Link's Crossbow Training, I really saw it as my responsibility to make sure that the creators didn't get too caught up with the reward, and focus instead on making the journey itself the fun part. I even told them not to make any bosses. ("The 'Process' as the Reward")

The games are not about the resolution or the return with the hero's elixir. They are about the actions, the journey, and the time spent doing things in a world. Experiencing frustration and overcoming it through skill and practice are more rewarding than a well-crafted ending.

In addition to the connections between the player and Link is the connection between the player and the setting of Hyrule as a place. Here too, we can see Miyamoto's influence on the trajectory of video games: Miyamoto provides players with open space to play in while also providing the closed places that are defined by the narratives. Consider Michel De Certeau's (1984) argument that stories are spatial metaphors: "Stories could also take this noble name [metaphorai]: every day, they traverse and organize places; they select and link them together; they make sentences and itineraries out of them. They are spatial trajectories" (115). Stories, De Certeau emphasizes, fix space as a culturally creative act (123). Likewise, Yi-Fu Tuan (1977) explores the idea of fixing place in opposition to the openness of space: "The ideas 'space' and 'place' require each other for definition. From the security and stability of place we are aware of the openness, freedom, and threat of space, and vice versa. Furthermore, if we think of space as that which allows movement, then place is pause; each pause in movement makes it possible for location to be transformed into place" (6). In other words, places are defined by something happening in a space, and that something fixes space both geographically and temporally: "That's the place where I proposed marriage." Or more germane to this game, "That's the place where I found the second Triforce or got stuck for five hours."

The balance that *The Legend of Zelda* managed to achieve was to provide the player with both a sense of cultural place and a sense of personal place. The sense of personal place is easier to see. These are the places in the game where I as the player have done something idiosyncratic to my game, such as always dying or feeling the elation of finding something after searching for a long time. In this, my time playing the game stories my personal experiences into the world; I would be narrativizing myself into the game space. These game experiences become my experiences. In many ways, this affinity is formed through the gameplay, the affordances of what I am able to do to complement the plot, which is the role of a good relationship between gameplay and narrative (see Juul 2005). Such a relationship may help to understand Miyamoto's position on narratives as a whole. Often, he is quoted as not caring about narratives, that his main focus is on gameplay only. Yet this is not completely true. In a *Super Play Magazine* interview, Miyamoto discussed narrative in the Zelda universe, explaining, "The most important thing for me, is the player get sucked into the game. I want the games to be easy to understand, and that the people appreciate the game's content, its core. I will never deny the importance of a great story, but the plot should never get that important that it becomes unclear" ("Super Play Magazine Interviews" 2003). The clarity comes from the play experience, the ability to explore, and the joy of discovery. The narrative is there to provide objectives. Further, the narrative helps to shape a sense of community place.

Community places are those places that are storied for those connected to events, culture, and history. These are the places where the Declaration of Independence was signed, that the Red Sox finally won a World Series, or that a house once burned down in a neighborhood and everyone still remembers it. These places provide the narrative glue for a community, a shared touchstone to history and space. *The Legend of Zelda* did this early in video game history as well, providing enough structure that people could talk about the world, ask one another for advice, and smile knowingly when someone got stuck with a particular puzzle. Miyamoto planned for this, designing a game for which one of his objectives was that people would talk to one another about it. Thus, communities could form around imagined places, building mythologies and narratives that have lasted for the previous thirty years.

Feeling the worlds in the 64 era: Designing for sensory immersion

The next major evolution in these spatial narrative games came with the release of the Nintendo 64 in 1996, which moved Nintendo from 2D to 3D environments. With its release, Miyamoto created *Super Mario 64* (Nintendo 1996), still the best-selling game on that system (selling 11.89m units [VG Chartz, "Super Mario 64" 2014]), and then two years later (and two years late), Miyamoto released *The Legend of Zelda: Ocarina of Time* (1998). This three-dimensional Zelda still appears on top-rated games lists, and in a retrospective, *Edge* (2014) declares "*Ocarina* may no longer be the prettiest, or even the biggest, but it's still the best of them all." Both of these games continue to organize the narratives within space, but the difference is that the space is modified and has a depth of view that allows for a different type of interaction. Furthermore, these interactions are enabled through the use of a newly designed controller: "*Ocarina* is also a model of how to design for a machine, rather than on it" (*Edge*). Thus, even though these games were designed almost twenty years ago, they defined the conventions for designing in 3D environments.

It often gets said that Miyamoto designed the Nintendo 64 controller for the *Super Mario 64* game, and for people playing *Super Mario 64*, this feels like it could have been the case. The yellow buttons in the right of Figure 2.4 allow the player to change the camera angle. The analog stick is pressure sensitive, which means that Mario would tiptoe, walk, and run depending on the pressure.