

THE ANATOMY OF SUPER MARIO

VOLUME I

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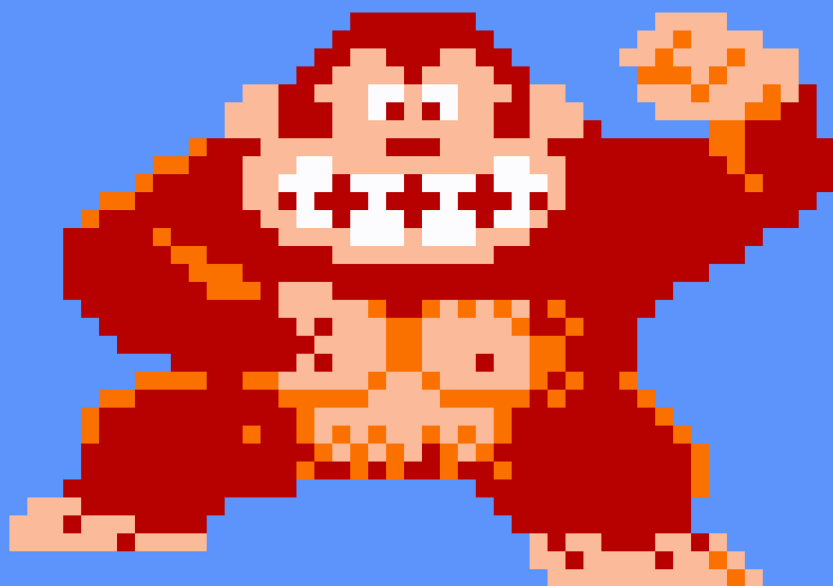
16 PX

OVERALLS
HELP DEFINE
SHAPE AND
MOTION OF
ARMS

MOUSTACHE
PROVIDES
DEFINITION
FOR NOSE

CONTRASTING
TONE FOR LOGO
PANEL IN CAP

REVERSE
COLORATION
DENOTES
FIRE POWER



THE ANATOMY OF SUPER MARIO

VOL. I

DONKEY KONG

DONKEY KONG JR.

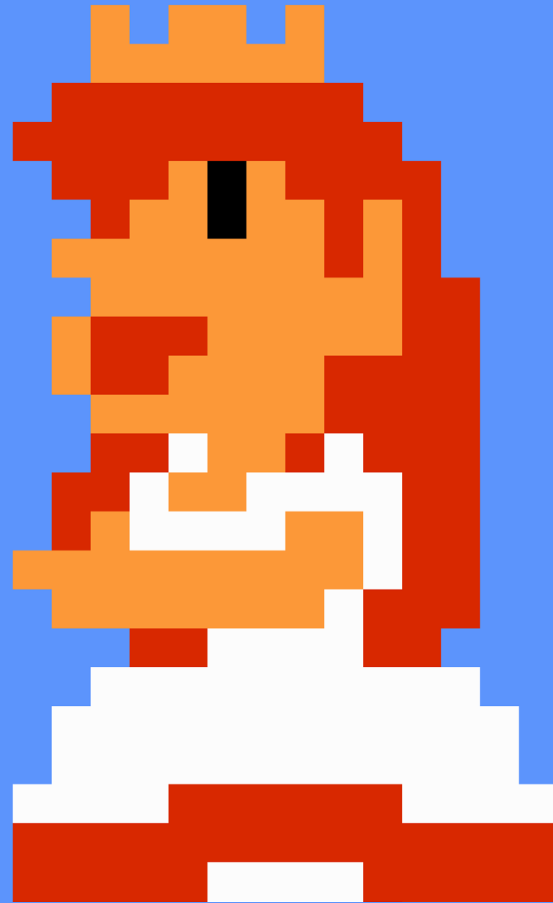
MARIO BROS.

DONKEY KONG 3

WRECKING CREW

SUPER MARIO BROS.

BY JEREMY PARISH



Mario, Donkey Kong, Pauline, Donkey Kong Jr., Stanley the Bugman, Luigi, Foreman Spike, Bowser, Goombas, Koopa Troopers, Koopa Paratroopers, Lakitu, Spinies, Cheep-Cheeps, Bloobers, Princess Toadstool, Mushroom Retainers, Bullet Bills, Buzzy Beetles, Podoboos, Metroid, and all other related characters, games, and indicia are trademark and copyright Nintendo of America and Nintendo Corporation Ltd. All rights reserved. Characters and game-related screenshot images used under the guidelines of fair usage as a critical and academic work. No claim of ownership by the author of this work is stated or implied.

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The full contents of this book may be read for free at www.2-dimensions.com. Just look for the Anatomy of a Game link at the top of every page!

I had originally planned to follow up *The Anatomy of Metroid* with a series on *Kid Icarus*, but after thinking about it a little more I decided perhaps I'd be wise to go back to basics and look at some of the games I keep referencing in these features. The Anatomy series dissects the design of games as best as I'm able within my limited capabilities, and the design of every good game builds on the wisdom it receives from those who have gone before it—shoulders of giants and all that. With that in mind, I should spend some time with one of gaming's true baselines: The *Super Mario* series.

1985's *Super Mario Bros.* may actually be the single most influential video game ever—certainly it rivals *Pac-Man*, *Tetris*, *Doom*, and *Space Invaders* in terms of importance. In any case, it has exerted tremendous influence over any game revolving around jumping, both 2D and 3D, which makes for an awful lot of descendants. For many of the games slated for exploration on the Anatomy list, most of which have their origins in the late '80s and in *Mario's* wake, understanding the basics of *Super Mario* would seem as important as learning to read before trying to write a novel.

So, let's talk about *Super Mario*, and let's start from the very beginning. I admit that I jumped into this series with a fair amount of trepidation. These Anatomy pieces are always written by the seat of my pants as I power through fresh playthroughs of games, and I confess I'd never finished *Super Mario Bros.* (made it 8-2 a couple of times before I burned out) let alone *The Lost Levels*. But save states are God's way of saying "It's OK to try again until you get it right," so all is well. More concerning to me is the fact that some of these games—particularly *Super Mario Bros.*—have been dissected in such exhaustive detail by so many critics and designers I have my doubts as to whether or not I can bring anything new to the table. Therefore, please accept my apologies in advance if I simply retread familiar ground and regurgitate things you've already read.

With that said, let us begin at the beginning.

Jeremy Parish
Nov. 4, 2013





Donkey Kong

Year: 1981

Format: Arcade

Also available on: Amstrad CPC, Atari 2600, Atari 7800, Atari 400/800/XE, Amiga 500, Apple II, ColecoVision, Coleco ADAM, Commodore VIC-20, Commodore 64, eReader, Game & Watch, GameCube, Intellivision, MSX, N64, NES, Game Boy Advance, Wii, 3DS, Wii U

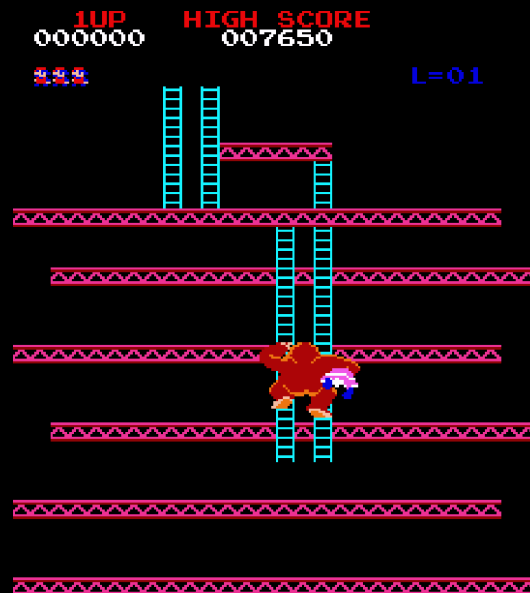
Designer: Shigeru Miyamoto (with Gumpei Yokoi and Ikegami Tsushinki)

Analyzing *Donkey Kong* is perhaps a little *too* easy, because Shigeru Miyamoto has talked rather exhaustively about the game's design—well, the first stage's layout, anyway. And yet, this is where Mario begins. And in any case, *Kong* is one of the medium's early works, so the fact that its designer has been so frank in his discussion of its influences and objectives is invaluable to the preservation of the medium. Imagine if we had a film series called "Iger Asks" in which the CEO of Disney interviewed folks like Fritz Lang and Georges Méliès. Games enjoy the distinction of being a medium entering something akin to maturity yet remaining young enough that nearly all its founding fathers remain alive.

As one of the medium's foundational works, *Donkey Kong* needs to be viewed in the context of its era for proper understanding of its challenges and impact. Arcade games in 1981 were primarily simplistic things: *Pac-Man* had made a huge splash the year before and warmed people to the concept of video game protagonists as mascot characters, and while simple fixed shooters in the *Space Invaders* vein dominated the arcade we began seeing the first hints of bigger, more complex game spaces with *Scramble*'s linear scrolling and *Defender*'s mind-blowing, free-movement Moebius strip of a world. Of course, on the PC we had *Ultima*, *Zork II*, and *Wizardry* jockeying for attention with their seemingly boundless intricacy... but those bear no nevermind on *Donkey Kong*, creations from an altogether different universe than the quarter-popping twitch style Nintendo was shooting for here.

One thing curiously lacking in games to that point was the now-cliché idea of a man walking from left to right and jumping over things. In the research I've done over the years, I can only find a handful of jump-oriented games that predate *Donkey Kong*: Namely, *Frogs*, *Heiankyo Alien*, and *Space Panic*, none of which embody the essence of a platformer in the contemporary sense—the sense that Mario pioneered. Of course, Nintendo didn't employ a bunch of geniuses working in a vacuum, and other designers were homing in on similar concepts; still, *Kong* got there first, and it did so brilliantly.

But originality can often be a crippling set-



back in the world of game design. When you ask players to perform tasks they've never done before, confusion often results. In this case, *Kong* expected players to forego the option to shoot and instead placed them in a more passive role. Kong's rival Jumpman, Mario, followed in Pac-Man's footsteps as a largely offenseless character forced to avoid the many hazards surrounding him, only occasionally managing to turn the tables on the eponymous gorilla—making this a product with the then-unusual distinction of taking its name from the villain—with specifically placed power-ups of limited duration.

As a hero, Mario behaves in ways we as humans find very natural. He runs, he jumps, he climbs ladder, he grabs hammers and smacks the crap out of barrels, all in pursuit of his abducted lady love. *Kong* obviously takes its inspiration from *King Kong* (to the point of inspiring a legal dispute), but Mario chases the monkey right up the side of the proverbial Empire State Building himself rather than relying on biplanes. While most action games to this point had consisted of either space ships jetting freely through a flat plane, cars driving forward into the screen or around a circle seen from above, or various characters running through mazes via

an illusory forced perspective, *Kong*'s point of view took a natural side-on perspective that gave Mario two axes of movement (left and right, up and down).

However, his vertical movement came in a very limited capacity: Rather than being able to move freely up and down, he only could climb ladders, drop from one platform to another (usually with fatal results), and leap in a short, precise arc. This placed heavy emphasis on vertical motion as a strategic tool, either allowing him to evade danger or move one level closer to his goal. Vertical movement also entailed limitations and danger: Mario climbed ladders more slowly than he ran, and he couldn't jump while climbing. In a sense, Mario became a reverse *Space Invader*, moving primarily left to right/right to left, and advancing forward in steps that moved him from one end of the screen to another.

Miyamoto has cited the need to move from bottom to top as one of *Kong*'s design challenges. If we look at *Space Invaders* and *Pac-Man* as the post-*Pong* juggernauts of arcade design circa 1981, we have a game where players begin at the bottom and lurk there to fend off advancing challenges and a game where players begin near the center of the screen and need to clear the entirety of the surrounding maze. *Kong* combines the two, with Mario beginning at the bottom left but needing to "clear" (as in traverse) the space ahead of and above him. Barrels roll toward Mario from above, but the challenge is to forge ahead and reach the top rather than simply hang out at the bottom and leap objects that reach the bottom.

The initial screen layout communicates this in two ways. First, the player's objective is communicated directly through introductions: Kong climbs to the top of the screen, distressed damsel Pauline tucked under his arm, and pounds his chest in challenge. "How high can you get?" the game literally asks, daring you to advance to Kong's perch and take back Mario's beloved. But in case that's not clear, Miyamoto incorporates an in-game incentive to truck it forward. In addition to the dangers dropping from above, Mario also begins with his back to a flaming oil barrel that begins to disgorge fireballs that drift slowly toward the player. At some point, you're left with no choice but to escape this flaming menace by

Super Mario Bros. may be history's most influential and best-selling game (yes, yes, outside of *Wii Sports*), but that doesn't mean you should look down your nose at its esteemed predecessor. In the early '80s, *Donkey Kong* served as the foundations of empires—not only Nintendo's empire, but others as well.

Donkey Kong certainly saved Nintendo's bacon back in 1981. The toy company had ventured into the arcade game business in the 1970s, in large part because the global oil crisis had made the cost of the plastics that their toy products were made of prohibitively expensive. (See also G.I. Joe's 70% size reduction around this time.)

Unfortunately, Nintendo's games never fared terribly well, so they decided to double down on a *Space Invaders* clone called *Radarscope*. Thousands of units were shipped to America in the hopes that they would help establish Nintendo as a force to be reckoned with... but by the time those coin-ops arrived overseas, America's brief interest in *Space Invaders* had long since passed. No one wanted *Radarscope*, and Nintendo was stuck with a warehouse full of unsold games—not only was the company out the sunk costs of the units and

shipped, but also the ongoing price of warehousing such a huge collection of pointless machines.

At this point, the company famously gave a young artist named Shigeru Miyamoto the mandate to come up with a *Radarscope* conversion kit that would somehow move those unwanted units. The result was *Donkey Kong*—initially intended to sport the *Popeye* license, but quickly worked into a *King Kong* pastiche when that deal fell through.

Amusement vendors didn't think much of the game, but they were the same people who a year before had decreed *Pac-Man* an uninteresting flop compared to *Rally-X*; the quarter-popping people of America, however, begged to differ. *Donkey Kong* was an immediate hit; Nintendo burned through its converted *Radarscopes* in short order, and still the world wanted more.

And indeed, such was the demand for *Donkey Kong* that it became the killer app for a number of fledgeling consoles. Coleco and Atari famously went to the mats over the license to *Donkey Kong*, with the former winning console rights and the latter securing computer rights (which caused a considerable kerfluffle when Coleco made a version for their ADAM system, a

computer based around a console core).

One might think that *Pac-Man*, being a much larger hit than even *Donkey Kong*, should have been a more hotly contested product. Instead, *Pac-Man* went down in infamy for the mediocrity of its Atari 2600 conversion, but the enthusiasm for *Donkey Kong* probably had more to do with the relative newness of Nintendo's game and the fact that, by 1983, *Pac-Man* had already been undermined by the ease with which its design could be cloned and the proliferation of mediocre *Pac-Man* sequels that had already begun to filter into arcades courtesy of Midway.

While no one managed to create an arcade-perfect home port of *Donkey Kong*, its console conversions turned out much better than *Pac-Man*'s 2600 port—yes, even the 2600 version of *Donkey Kong*, despite the game's relative technical sophistication. Nintendo's own Famicom version definitely looked best, which made for a fitting sales pitch when the console launched in 1983; but only computer versions included the notorious cement factory stage. In the end, only the original arcade game is the perfect rendition—and that, for various reasons, may never see the light of day again.



climbing. Whether or not you want to, you have to begin your ascent to the top.

The level design itself leads your eye upward. Kong makes a real hash of the construction site at the outset of the game, causing girders to buckle and sit askew. Conveniently, this creates the visual effect of a series of ramps that make "up" your natural course of action. The level could just as easily have been designed as parallel girders—and in fact subsequent stages take precisely that form—but instead we have this warped construction site to lure you toward Kong and Pauline.

The off-kilter beams serve an important gameplay function, too: They introduce an element of risk and reward. There's really not a lot to this level—you run and climb to the top, dodging barrels—but the exact route you take is left to your discretion and you're scored on how quickly you reach the top. At the outer edges of the board, the ladders have been compressed, which

makes them shorter and thus allows you to climb them more quickly. You're less vulnerable on short ladders, and barrels (which can drop down either by rolling along a ladder or dropping at the edge of an I-beam) are less likely to take an unexpected shortcut and catch you off-guard. The downside to playing it safe is that you burn a lot of clock time dashing all the way to the edges, so using the short ladders proves to be less efficient. Yet the long ladders are far more hazardous, restricting your movement and giving you less reaction time to avoid chaotic barrels.

You're presented with only a single ladder to climb from the first "floor," but as soon as you reach the second you find yourself with a few choices. You can make a mad dash for the far end of the girder and climb the distant ladder; you can take the middle ladder, though its close proximity to another tall ladder leading from floor three to floor four means there's a chance a

barrel could come trundling down both ladders and wipe you out before you have time to react; or you could jump and grab the hammer, smashing barrels for points. The hammer makes you briefly invulnerable (or nearly so), pulping any barrel that rolls into range for extra points. It lasts for roughly five seconds. An obvious impulse here is to snag the hammer and make a break for the far end of the second floor, pummeling every barrel you come across and waiting at the left edge where the upswing of the hammer's arc can actually destroy barrels on the floor above. This way you rack up points and have immediate access to the short ladder once the power-up phase ends.

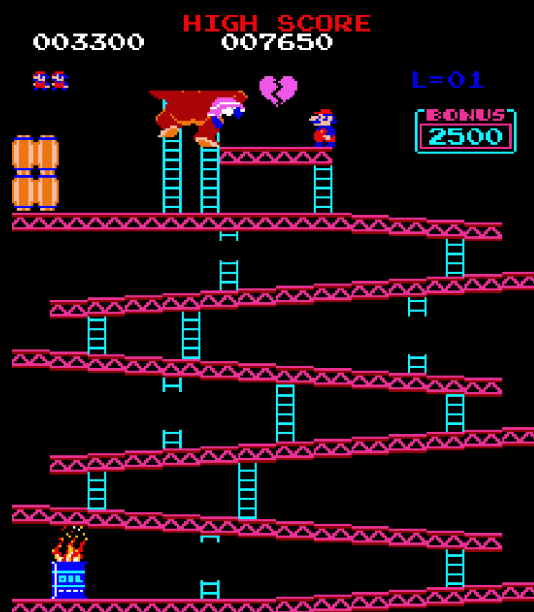
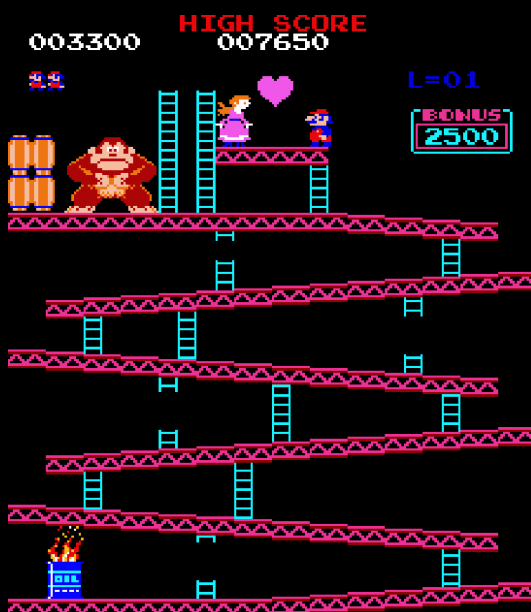
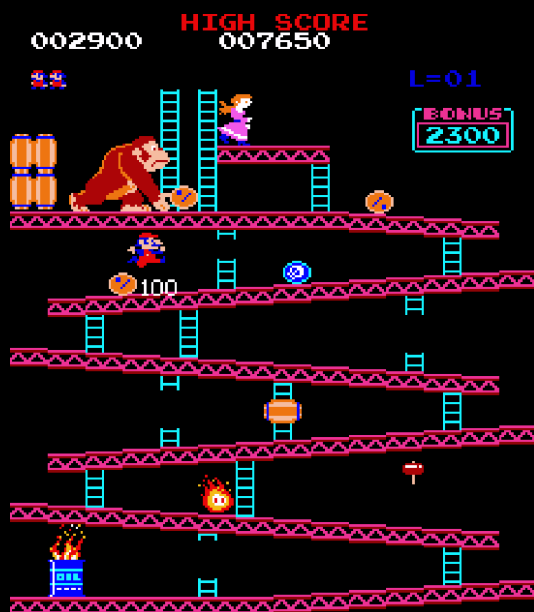
The next two floors, however, don't offer the security of a hammer. While the second floor provides its power-up as a means to get you safely from one end of the girder to the other, the third floor demands you forge ahead on your own. That means watching for barrels from above—occasionally Kong tosses one quickly

on a diagonal, and the closer you get to his perch the less time you have to react to one of these missiles—and leaping the ones coming from straight ahead. The fourth floor is much the same, except even the “center” ladder is further away from your starting point and forces you to spend more time on the ground. It also means the left edge of the screen is extremely dangerous, as it provides three avenues for a barrel's descent in close proximity: The beam edge, the short ladder, and the long ladder. Reaching the fifth floor requires patience and nerve.

Once on the fifth floor, however, you'll find a touch of grace: Another hammer. Since you pass directly beneath Kong here, there's a decent chance one of his quick projectiles will klonk you on the head and you'll have made it all this way for nothing. The hammer works as a sort of umbrella, keeping Mario's noggin safe from the beat directly overhead. The downside to the hammer's security is that it lasts longer than a dash across the girder, which means you'll burn time waiting for it to

run out (Mario can't climb while holding a hammer, and he can't dispose of a hammer, only wait until its timer winds down) and could potentially lose your rhythm of barrel evasion lurking down at the end. There's a certain inertia to games like this, and once you slow down it can be tough to pick up momentum again. So while grabbing the hammer seems a natural tactic, you may be better off foregoing it in favor of a naked run.

The top floor can seem nerve-wracking, but it's actually one of the easiest spaces to navigate. Kong's attacks offer plenty of safety between tosses—more than enough to reach the ladder to Pauline and climb above the barrels' paths. You can also skip Pauline and take on Donkey Kong, at which point you'll die horribly. What did you expect, you idiot? No, the correct answer is clearly to go for Pauline, reuniting Mario with his lady love and bringing an end to the relentless barrel assault... at which point, of course, Kong drags her to the next stage.



Donkey Kong's second level has become something of a legend thanks to its omission in nearly every home port of the game ever released. See, Nintendo (and ghost-writer development house Ikegami Tsushinki) went a little crazy with the game's design, cramming four different stage layouts into the arcade board. While these mostly shared assets amongst themselves, the second level apparently featured just enough unique graphics and mechanics that it couldn't easily be squeezed into cartridges—even those released a few years after the arcade version's debut. So, this level ended up being cut.

Why this stage, you ask? Probably because it is by far the weakest level of *Donkey Kong*.

After the clear, directed design of the first level, stage 2 lacks a certain clarity of purpose. Some of that is clearly intentional. The angled ramps vanish, removing the player's straightforward path to the goal and replacing it with a more open symmetrical structure that allows you to climb up on either side.

Oddly, the hazards this time have nothing to do with Kong himself. He slides back and forth at the top of the screen, but he doesn't throw anything. He's just kind of there, pounding his chest at you to no avail.

Instead, the threats come in the following forms:

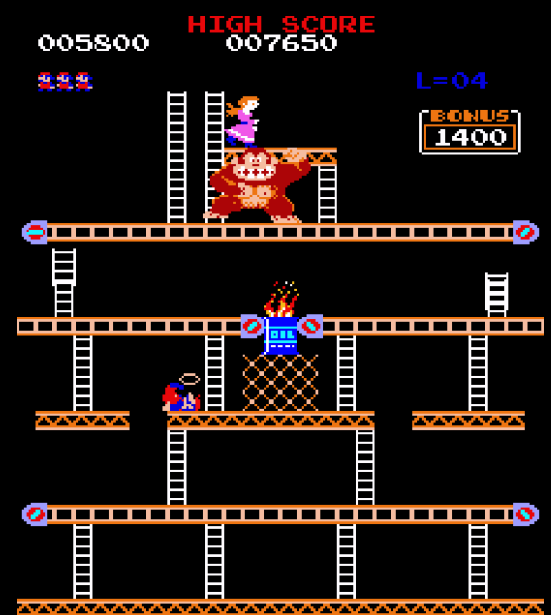
- Fireballs disgorged from the OIL drum suspended above a wire mesh in the center of the screen. Like the first stage's fireball, these drift slowly in Mario's approximate direction with just enough unpredictability to be incredibly dangerous.
- Piles of wet cement in basins that slide steadily along the screen on two different levels. These can be leapt or destroyed with a hammer.
- The stage itself: The second, fourth, and fifth floors are conveyor belts. It's not just Kong and the cement piles that roll along the belts. Mario does, too. Walking in the direction of a belt's movement causes Mario to advance at double speed, while walking against its flow slows Mario's pace to a crawl. Additionally, the ladders linking the fourth and fifth floors constantly rise and retract, forcing you to time you climb carefully lest you find yourself stranded midway up as a fireball chases you up the rungs.

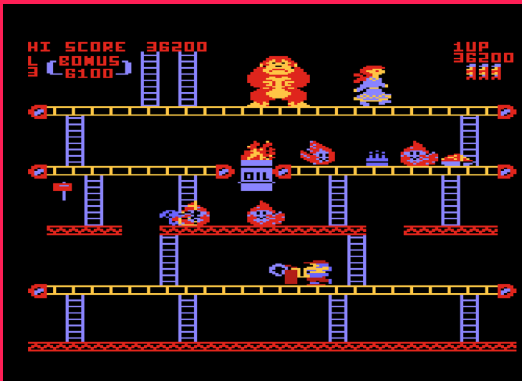
That's a lot of factors to keep track of in a level so much

more freeform than the first. Realistically, this would make a better third stage than second. (Edit: And in fact, Nintendo seems to agree; in the U.S. version, this stage doesn't even appear until your third loop through the game.) Since it lacks a clear focal point beyond "get to Pauline" while forcing you to deal with so many moving objects, it can be overwhelming for a first-time player. While the ultimate objective communicates itself fairly well by presenting itself identically to the goal of the first stage, even that's a little fuzzy.

To beat this stage, you simply need to reach the fifth floor without climbing into Kong as he slides overhead. Unlike the previous level, you don't actually need to ascend to Pauline's level; as soon you hit Kong's floor, he escapes to the next screen. It's an odd inconsistency; I can understand why they didn't design it so that you're railroaded up the right side of the screen, but I don't think it works nearly as well as the other stages.

Of all the stages to drop from home ports, I can see why they axed this one. Even so, it actually loosely inspired its own Game & Watch (*Mario's Cement Factory*). I guess even substandard *Donkey Kong* ideas are still pretty OK.





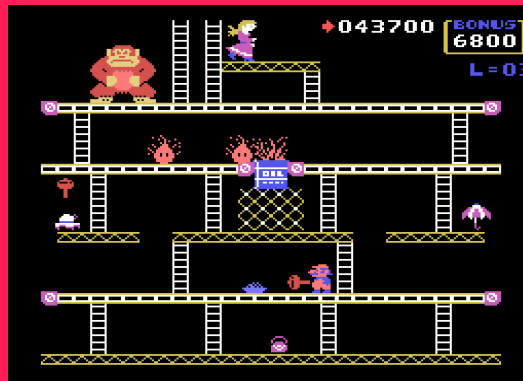
The cement factory! (Or, as it's often known, the pie factory!) Easily the most infamous of *Donkey Kong's* levels, the cement factory has lived a troubled life from the very start. For starters, as noted here, it wasn't particularly great; its design and challenges by far represent the most half-baked (get it?) effort in *Donkey Kong*.

In the arcade game, this stage—ostensibly the second—was pushed back in the U.S. release, becoming much harder to reach than in Japan. While it certainly made sense for such a challenging level to be pushed back in the rotation, players had to complete six levels (including two cycles of the first and final stages) due to Nintendo's strange stage resequencing.

Where the Japanese arcade title simply offered endless loops of the four stages in order, Nintendo shortened the first loop of the game and lengthened each subsequent cycle. The first loop consisted only of the first and fourth stages; the second added the elevator level in the middle; and only on the third loop did the cement factory appear, coming right after the first stage as in the overseas release.

While the reshuffling makes a certain amount of sense from an arcade operator's perspective—entice players to try to advance further by dangling unique content as a hard-to-reach carrot—it had the effect of rendering the cement factory almost something of a myth. Only the best players unlocked the factory, and even for them it was a fleeting glimpse, appearing only once every four stages in a phase of the game in which difficulty ramped up steeply from the beginning.

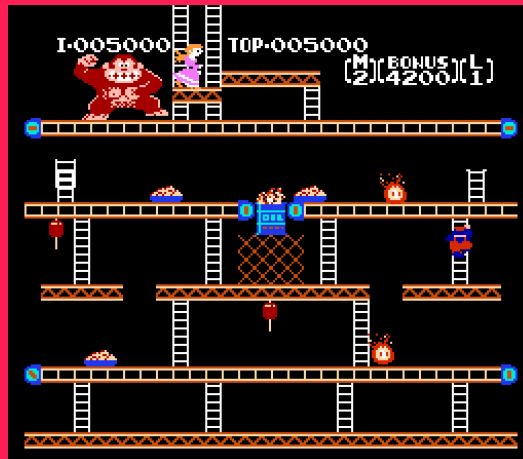
To further (ahem) cement the factory's sense



of intangibility, it failed to make the cut for home console conversions. It showed up in a number of computer renditions, but on Atari 2600, ColecoVision, et al., the cement factory simply never appeared.

Why the absence? Old consoles suffered from extreme memory limitations, and every byte of data counted. The cement factory's combination of mediocre design and new elements and mechanics undoubtedly made it the easiest choice for the necessary cull.

Even Nintendo's own Famicom version—a killer app with nearly arcade-perfect visuals and play—lacked the cement factory. Recently, they created what amounts to an official ROM hack with the cement factory added in... though, strangely, they didn't restore the excised intro cutscene. And so, the dream of a perfect console port continues unfulfilled....



If the cement factory stage represents *Donkey Kong* at its worst—and remember, “worst” in a game this well-designed simply means “OK but not amazing”—the lift level that follows it offers *Donkey Kong* at its best. While this screen may not offer an exquisitely crafted visual scenario on par with the opening stage, that's only because the first screen bears the burden of teaching players the rules and goals of the game. This lift sequence builds on the knowledge engendered in the first stage and changes the rules, but it does so in a way that feels more focused than the cement factory.

While this stage comes third on the original Japanese arcade board and fourth on the U.S. boards, most home conversions treat this as the second stage—and rightly so! It's a perfect elaboration of *Donkey Kong's* rules, consistent with the opening screen's rules and hazards while offering plenty of new things to consider and deal with.

As in the beginning level, Mario begins at the bottom left and has to make his way to the upper right in order to reach Pauline. Once again, Donkey Kong continues to pose a direct threat: This time he tosses spring jacks that bounce along the top girder before plummeting to the ground below. The jacks offer a more limited threat than the barrels—they follow a single path and can't suddenly change direction—but they're much, much faster. In fact, they're the fastest object in the entire game. Their speed relative to everything else around them (including Mario) makes them intimidating, which can be unnerving enough to keep you from realizing that they always bounce in the exact same spots. It's easy enough to stick to the apex of their bounce arc in order to keep Mario safe, but it's also easy to become flustered by their brisk movement and lose your nerve.

Once you figure out the safe spot (as Mario has here), it's easy enough to make a break for it and climb the ladder to Pauline between jack bounces.

Of course, the real trick here is simply reaching the top. While Mario faces fewer active hazards in this stage than in the game's first two screens, the pas-

sive threat represented by the level itself can be plenty to deal with. Mario's forced to navigate this stage by jumping, and unlike the first two stages he has plenty of opportunities to discover the unfortunate jump physics of *Donkey Kong*: If he falls from a height greater than his own body, he dies instantly. Clearly this is something he worked hard to overcome through the years.

To further complicate the choppy, broken scenery, much of the stage is dominated by a pair of elevator lifts, one rising up and the other moving downward. These increase the stress considerably since they force players to time their jumps carefully—wait too long (or twitch too soon) and the lift will have moved out of alignment with solid ground and your leap will take you more than a head-height, much to your regret.

Dangerous as the lifts can be, the level design offers alternatives for the insecure. If you prefer, you can simply climb the ladders to the left of the first elevators. It's slower than riding up, but once you reach the top you can use the lift as a stepping stone, leaping quickly

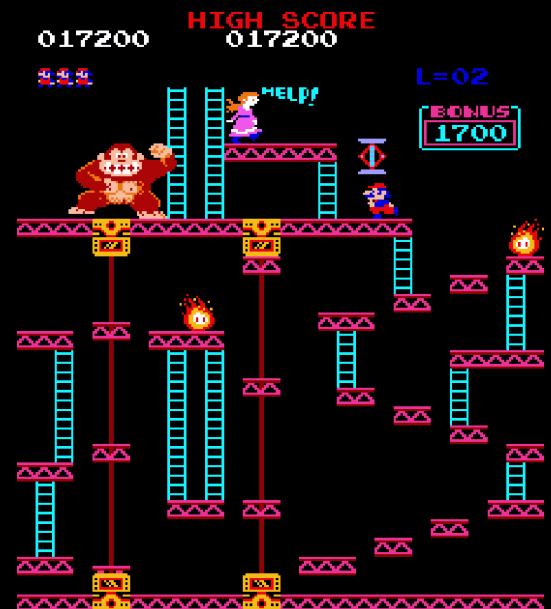
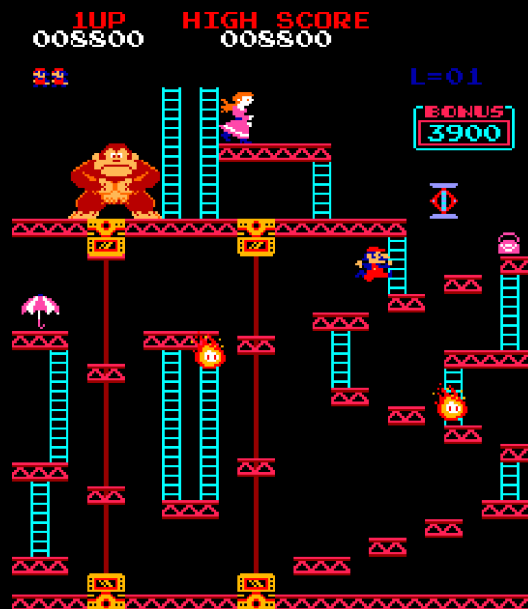
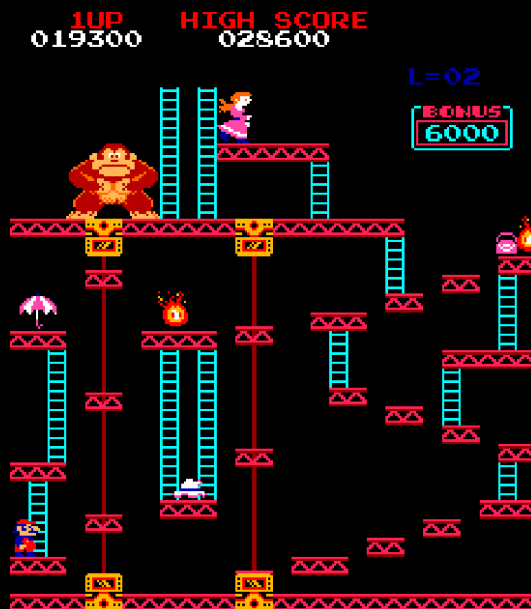
to the elevator once it reaches your level and then off again with no real need to worry about its height. However, climbing comes with its own concomitant peril: The platforms and ladders wedged between the lifts are patrolled by a roaming fireball, and it loosely tracks Mario's location. If you choose to climb, it'll putter up the ladder alongside you... meaning that when you go to leap to the center platform, it'll be right there waiting to scorch you. Thus it's a trade-off: Speed enough to outrace the fireball, or slow and steady leaving yourself vulnerable to its hostile drift?

On the center platform, you can play it a couple of different ways. You can be brash and leap from the top level onto a descending platform and to the top-most platform opposite—an incredibly tricky feat given that the opposite platform is slightly higher than your starting point, so you have to know the limits of Mario's jump to a pixel. Or you can either hop onto a lift and ride it down to the bottommost platform or simply climb down a ladder and meet the lift at the bottom. If you go

the top route, you bypass a huge chunk of the stage and rack up bonus points for your efficient use of time.

But if not, you have to navigate another route that once again offers a couple of different options. You can ascend the far right of the screen on nice safe ladders... but once again, this area is patrolled by a fireball that tends to drift in Mario's direction. The other option is to leap your way up the platforms that bend to the left and then loop back around to the right. This poses a double hazard, though: Not only do you have to deal with the early days' limitations of Mario's jump, the left route also passes through the course that the spring jacks take as they plummet.

All in all, a fantastic level. Fast-paced, throwing out tons of things for the player to cope with and keep track of, but never overwhelming. You're given multiple choices to reach your goal at every turn, and the hazards comprise a mix of very carefully defined patterns and quirky randomness. Every pixel is plotted to exquisite perfection.



Here we are, already at the “end” of *Donkey Kong*: Its fourth screen. By today’s standards, DK is comically short, but four uniquely designed screens was nothing to sneer at back in 1981. Besides, arcade games weren’t after long-term immersive commitments. This was a light snack of a game to see how high a score you could rack up before being unable to keep up with the rising difficulty as you worked through the four looping stages over and over again. You wanted the kind of time sink we expect today from a *Skyrim* or whatever, you bought a PC and played *Wizardry*. For a quarter—about 65 cents in today’s money—*Donkey Kong* offered a satisfying bang-to-buck ratio.

One neat thing about *Donkey Kong*’s fourth stage is that it actually lets you “beat” the game. Sure, once you finish this level you loop back to the start, but for all intents and purposes the game places a clean divide between story and play. Subsequent post-conquest loops simply let you experience the story in a more challenging way, but once you’ve blasted through all four levels you’ve witnessed the full *Donkey Kong* story: Gorilla steals girl, climbs construction project. Blue-collar dude goes to rescue her. Gorilla retreats further up the construction site every time the dude comes near.

And eventually, we come to this place: 100 meters up, a place from which there is no further retreat. Mario’s pursued Kong all the way to the top of the building being assembled. Pauline stands stranded atop a scaffold at the peak, while Kong stands pounding his chest as a cornered beast with no further tricks up his sleeve. Unlike previous stages, he has no offensive maneuvers here, and he doesn’t move left or right. He is, effectively, on the ropes, seeking sanctuary in the skeleton of the penthouse office.

Of course, he can still smack Mario senseless, so the goal here is to conquer Kong indirectly. You can’t win in a straight fight, so instead you get to turn the tables on the beast and use the level design against him for once.

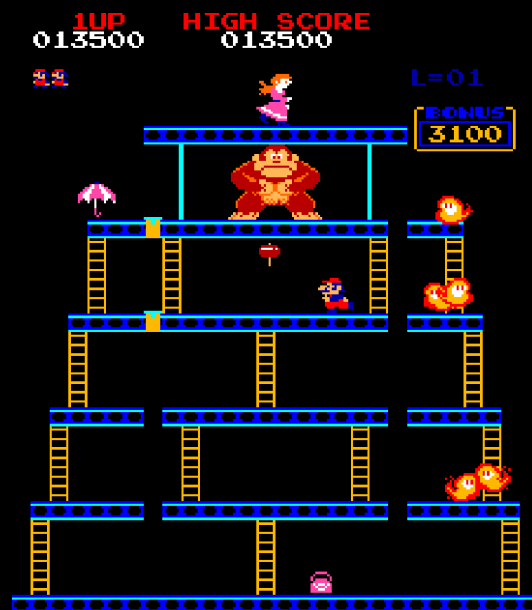
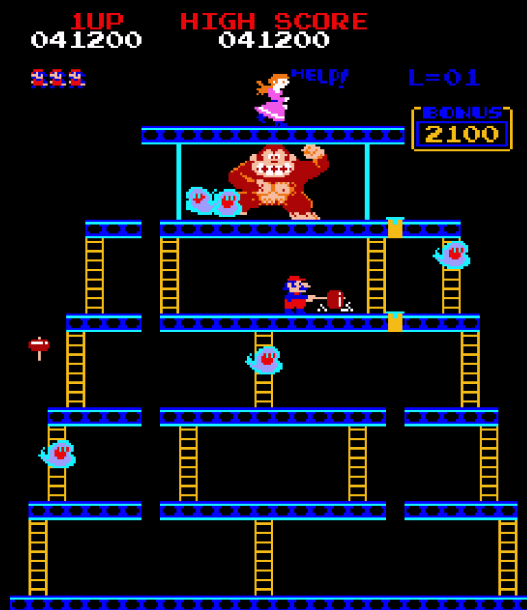
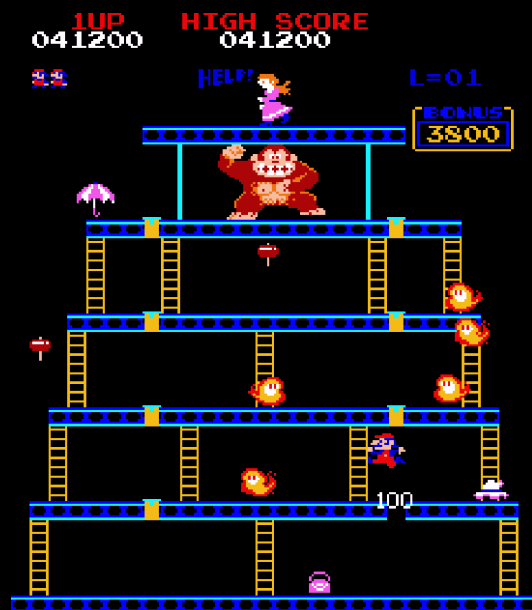
Fittingly, this is the most “boring” stage layout in the game. Unless you’re simply a thundering idiot and leap off the side of the girders, it lacks the platforming challenges of the past two stages. The ground is stable, flat, and spans nearly the entire screen uninterrupted. The only real threat comes in the form of the Mario-seeking fireballs, which appear in alarmingly large numbers.

But your goal here is different than in the

previous levels. You’re not trying to reach Pauline this time; it’s a snap to climb to the top of the girders. But with no ladder leading to her from Kong’s perch, Mario can’t actually reach Pauline here. The objectives have changed, and instead of its previous race to the pinnacle the game takes on a touch of *Pac-Man*: You can move freely around the screen now, and your goal is to pass over and gather each of a specific type of collectible. Here, though, the items you pursue aren’t dots but rather rivets holding the structure together.

Sharp-eyed players will notice that the center portion of this structure on every level consists of the same I-beam flanked by a pair of bolts. Mario’s task, then, is to remove these rivets from the joints holding the central portion aloft, causing Kong’s support to collapse. You accomplish this by simply walking or even jumping over the bolt.

Simply accept the game logic of this all, OK? No, realistically it doesn’t make sense (why doesn’t each girder collapse once the rivet is removed? How is Mario able to grab a bolt while sailing through the air above it?), but, you know, whatever. The goal communicates itself pretty neatly and obviously through visuals, and the level objective does a great job of turning the tables



on a grand scale. It works. It feels climactic. And it's fun.

The bolt-gathering mechanic changes up the nature of the game. Until now, collecting has been optional: You can gather up Pauline's lost belongings (purse, hat, umbrella) in each stage for a score bonus, but it's strictly a points thing. Here, you have to chart a path through a swarm of unpredictable fireballs while also taking into account the dynamic nature of the stage.

See, while this level begins as a wide-open four-tier structure linked by ladders—allowing you to move freely at your whim—gathering up the rivets changes the lay of the land. Each rivet you swipe leaves a gap in the floor that affects both you and the fireballs. You can leap the holes, but you can't walk over them (Mario hadn't learned to B-dash yet—it's very tragic). Neither can fireballs pass over the holes.

This can have both good and bad effects. It's great when you're being pursued by eager flames: Simply hop over a rivet and it'll be stuck at the edge of the hole, fuming at you in impotent frustration like those cops from the next county over every time the Duke boys crossed back over the Hazzard county line. On the other hand, the vanishing rivets causes the fireballs to cluster up dangerously, which can be a real problem when they

clump together around a spot you need to pass over to pick up a bolt. The gaps also limit your own offensive capabilities; since you can't jump or climb while wielding a hammer, the presence or absence of bolts on your current level determines just how widely you can range in pursuit of fireballs to smash.

With all the bolts in hand, Donkey Kong experiences a comical Wile E. Coyote moment as the girders collapse and he's left hanging in the air for a moment before plunging 15 meters to the lowest level.

But wait! Pauline's platform is also suspended in midair with no support! Does that mean...?

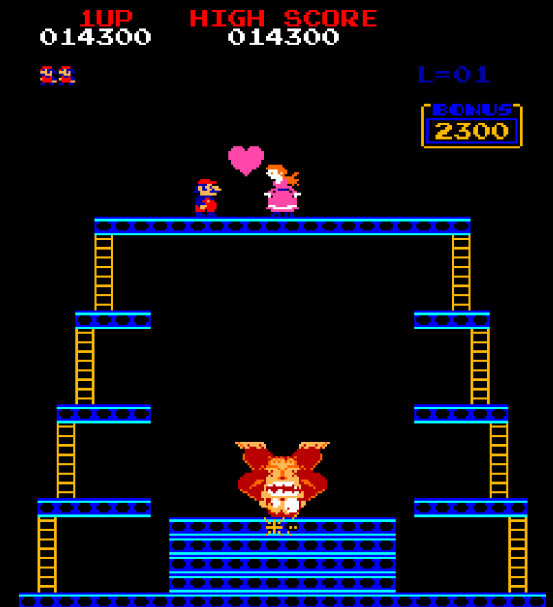
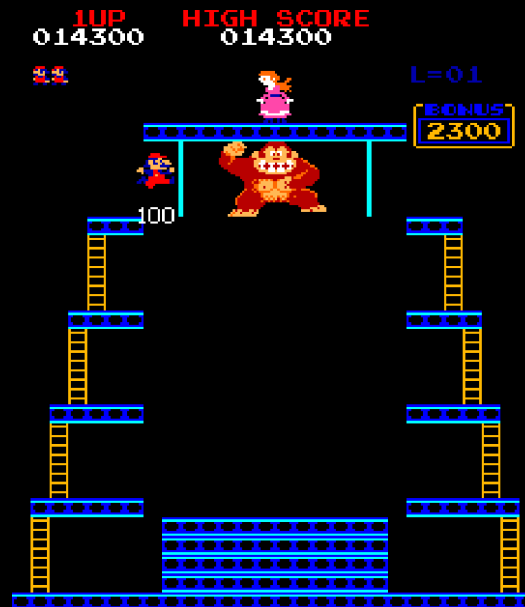
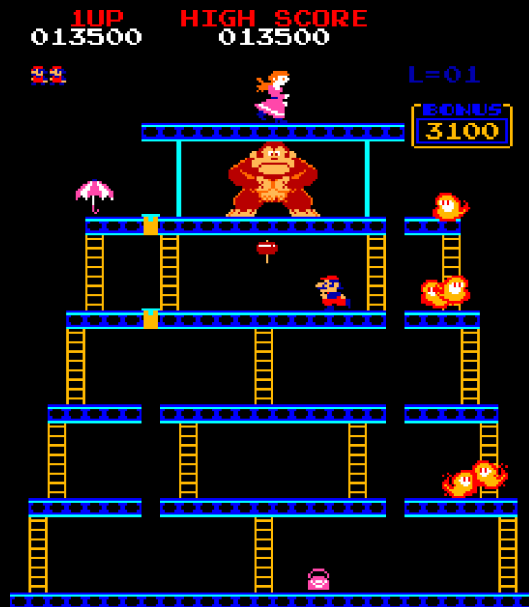
No. It doesn't. In a nicely thoughtful touch, Miyamoto designed her perch to be slightly wider than the span of the girder-and-rivet gap below, so it drops down to where Kong had been standing, allowing her to reunite safely with her midget love. Pity Tom Cruise and Nicole Kidman broke up—they'd be perfect as the leads in the live-action *Donkey Kong*.

Kong himself is defeated but not dead, a divergence from the *King Kong* source material (and more in keeping with *Donkey Kong's* other inspiration, *Popeye*). He's merely stunned. Video games were more humanitarian back in the day, you see. Ostensibly, this

leaves Kong free to start the next loop and kick things off all over again. But really, it leaves the door open for the sequel, in which some basic roles become radically reversed.

It's not hard to see why *Donkey Kong* catapulted Nintendo to powerhouse status. In 1981, its breadth of variety, crisp visuals, and shifting challenges and objectives outshone anything yet seen in the arcades. Other games matched it in one area or another, but nothing else brought all three of these values together into a single package. For all its relative complexity, its design did an excellent job of teaching the player on the fly from the very opening moment where Kong chucks a barrel directly down into the oil tin to motivate Mario to get moving.

Despite the somewhat weak second level, *Donkey Kong* remains fun to play more than 30 years later—it's simple compared to all that it inspired but remains entertaining for its purity of purpose and how well its concepts are expressed. You can see how *Donkey Kong* would kick off a dynasty of games that continues strong three decades later; its creators are still around, and they've never completely lost sight of the design discipline they demonstrated here.



Few games hold as significant a place in video game history as *Donkey Kong*. And yet, unlike contemporary landmarks such as *Space Invaders* and *Pac-Man*, it hasn't been republished and compiled half to death. Where those games are practically commodities, the original arcade version of *Donkey Kong* has only been reproduced once, as an Easter egg in *Donkey Kong 64*.

It's a curious absence. Nintendo certainly isn't shy about churning through its own history for profit, as the fact that gamers can buy no less than *two* different versions of the utterly dreadful *Urban Champion* for 3DS. On the contrary, Nintendo was one of the first publishers to properly capitalize on its own legacy, with *Super Mario All-Stars* serving as what may in fact be the first-ever proper remake anthology in the industry's history. Yet for some reason, the company perpetually shies away from its own arcade roots; outside of offhanded references in microgame collections like *WarioWare*, you'd be hard-pressed to find any acknowledgement by Nintendo that it made video games prior to the Famicom's debut.

You could write this off to the passive-aggressive ethnocentrism that leads the Japanese game industry to begin chronicling the history of the medium with the Famicom's launch in July 1983 at the annual Tokyo Game Show history museum (apparently *Space Invaders* fever was some sort of mass hallucination). But more likely, *Donkey Kong* has fallen victim to other circumstances entirely: Namely, legal circumstances.

Based on documentation unearthed and translated in large part by the Game Developer Research Institute (gdri.smspower.org), *Donkey Kong* fell afoul of several courtroom struggles throughout the '80s. The most famous of these was the one initiated by Universal Studios, claiming that *Donkey Kong* openly infringed on *King Kong*—a case mooted by Howard Lincoln's legal team, who discovered that Universal had itself snagged the rights to *King Kong* based on the property's lapse into the public domain. Nintendo handily won that case, and you can read all about it in any number of retrospectives on the company.

Much less publicized was a case that

transpired in the Japanese courts—one that seemingly had a less positive outcome for Nintendo. "Seemingly," because the actual resolution doesn't appear in any public documentation; most likely, Nintendo settled the case quietly out of court.

The case in question concerned not the overall intellectual rights to the *Donkey Kong* concept, but the specifics of its code. Many of Nintendo's early arcade games were evidently outsourced to a third party developer; Nintendo would create the art and concept, and the contractor would assemble the code and put together the boards for the machines. Such appears to be the case with *Donkey Kong*; the arcade source code even includes a small message from the apparent contractor, an electronics company called Ikegami Tsushinki.

Ikegami Tsushinki's role doesn't diminish the involvement of Shigeru Miyamoto in *Donkey Kong*'s design by any means. The original art and concept and planning, legendarily tossed together in order to salvage all those unused *Radarscope* cabinets, couldn't have happened without Miyamoto's aesthetic sensibilities and love for play. But it also couldn't have happened without Ikegami Tsushinki's capable programming work.

By many accounts, *Donkey Kong* was hardly the first game Ikegami Tsushinki did the legwork for. They're credited by a number of online sources for previous Nintendo titles, including *Galaxian* clone *Space Fire Bird*; the difference between those games and *Donkey Kong* is that only *Donkey Kong* proved to be a colossal hit. And therein lay the problem.

Nintendo initially placed a modest order for *Donkey Kong* boards. The main objective for the game was to move a few thousand unwanted cabinets in storage; ultimately, though, it sold more than 60,000 units in its first year of release alone. Nintendo stepped up production to fulfill demand, and Miyamoto quickly got to work on a sequel.

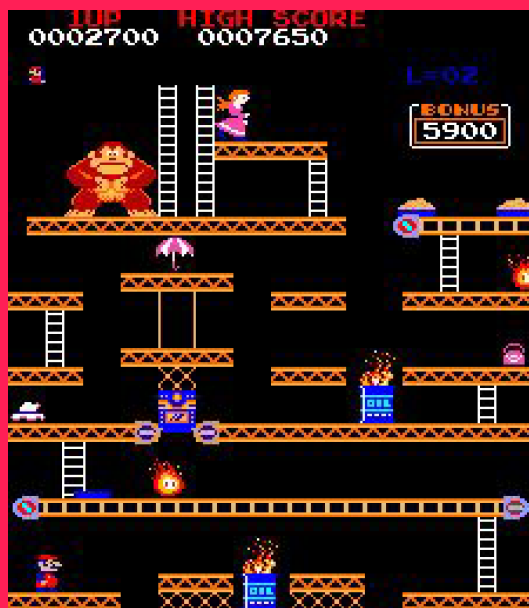
However, according to Japanese court documents, Ikegami Tsushinki alleged that both of these responses violated their rights. This is all my tenuous understanding of someone else's reporting of translated legal documents, but it goes something like this: The

contractor didn't see any additional profits on the extra production units Nintendo manufactured, receiving pay only for the initial run. Furthermore, they weren't given any involvement in the creation of *Donkey Kong Jr.*, even though Nintendo evidently reverse engineered Ikegami Tsushinki's *Donkey Kong* code in order to produce the sequel. This sounds entirely plausible, as Nintendo would hardly have been the first game company to play fast and loose with intellectual property in the Wild West early days of video gaming. Even today, the games industry seems to revolve around little guys getting screwed—and certainly Nintendo's draconian licensing policies in its console days would give no one reason to doubt that Nintendo's only looking out for Nintendo.

Unfortunately, the apparent decision to settle quietly outside of court means both the truth and resolution of the situation will forever be unknown to the general public. Still, we can certainly speculate. The simple fact that Nintendo's history includes one of the most important, popular, and successful video games of all time yet keep it buried in the vaults suggests that they can't legally republish it. Knowing the nastiness that sometimes lurks behind Nintendo's family-friendly façade, it's also quite possible that Ikegami Tsushinki would be able to claim some significant percentage of profits from a rerelease of the game, so Nintendo refuses to reissue it simply to be spiteful.

Whatever the reality of the situation, the ultimate result is that the world has consistently been denied access to one of the most important video games of all time. The irony of the situation is that the only reasonable way to play the original *Donkey Kong* is to acquire it legally... but then again, for Nintendo to offer it themselves may actually be illegal, too.

For more on Ikegami Tsushinki's alleged role in the development of Donkey Kong and other Nintendo games, please see:
[gdri.smspower.org/wiki/index.php/Ikegami_Tsushinki_tcrf.net/Donkey_Kong_\(Arcade\)](http://gdri.smspower.org/wiki/index.php/Ikegami_Tsushinki_tcrf.net/Donkey_Kong_(Arcade))
http://www.gamasutra.com/view/feature/134790/the_secret_history_of_donkey_kong.php

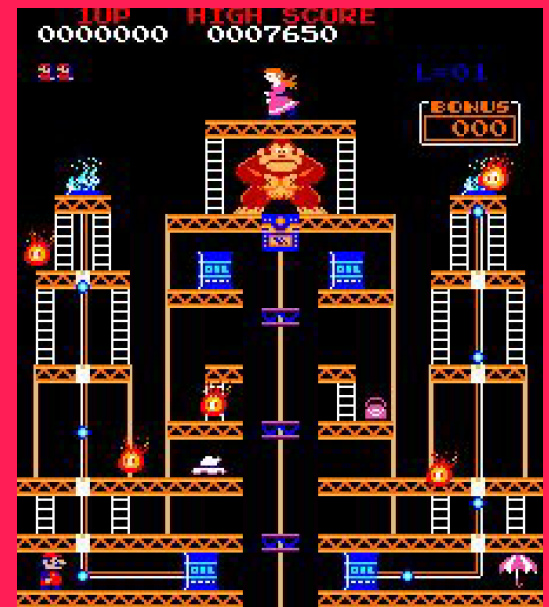


Nintendo didn't create a proper sequel to *Donkey Kong* for more than a decade—*Donkey Kong Jr.* and *Donkey Kong 3* decidedly being their own thing—even though the *Nintendo Player's Guide* teased an NES game called "*The Return of Donkey Kong*" in 1987, which inspired dreams of a modern-day update to the arcade classic for countless kids. No one knows what that game was meant to be, despite a fair amount of investigative work by some very interested parties.

But true fans never let a thing like "no concrete details" or "complete uncertainty" get in their way, which is why a fellow named Jeff Kulczycki created *Donkey Kong II: Jumpman Returns* in 2006. Essentially a ROM hack of the original *Donkey Kong*, *DK2* revisits familiar stages with bafflingly difficult new variants. By no means is it a work on par with the game that inspired it—the levels tend to require very specific patterns and rhythms of play, unlike *Donkey Kong*'s more improvisation freedom—but it's fun enough... and in any case, the simple novelty of seeing new twists on these primal gaming stages makes it worth a play.

Even more impressively, other fans have converted portions of the game to home systems, including a surprisingly faithful version for Intellivision (which happily omits the crummy second stage altogether).

Of course, Nintendo did make its own proper *Donkey Kong* sequel in the form of a Game Boy title that initially appeared to be a simple remake of the four-stage arcade original before revealing the shocking truth that it was actually about 100 stages long and gave Mario all kinds of crazy new skills. But, as a Game Boy game, it was totally overshadowed by *Donkey Kong Country* until years later when people suddenly realized that it was, in fact, absolutely brilliant.



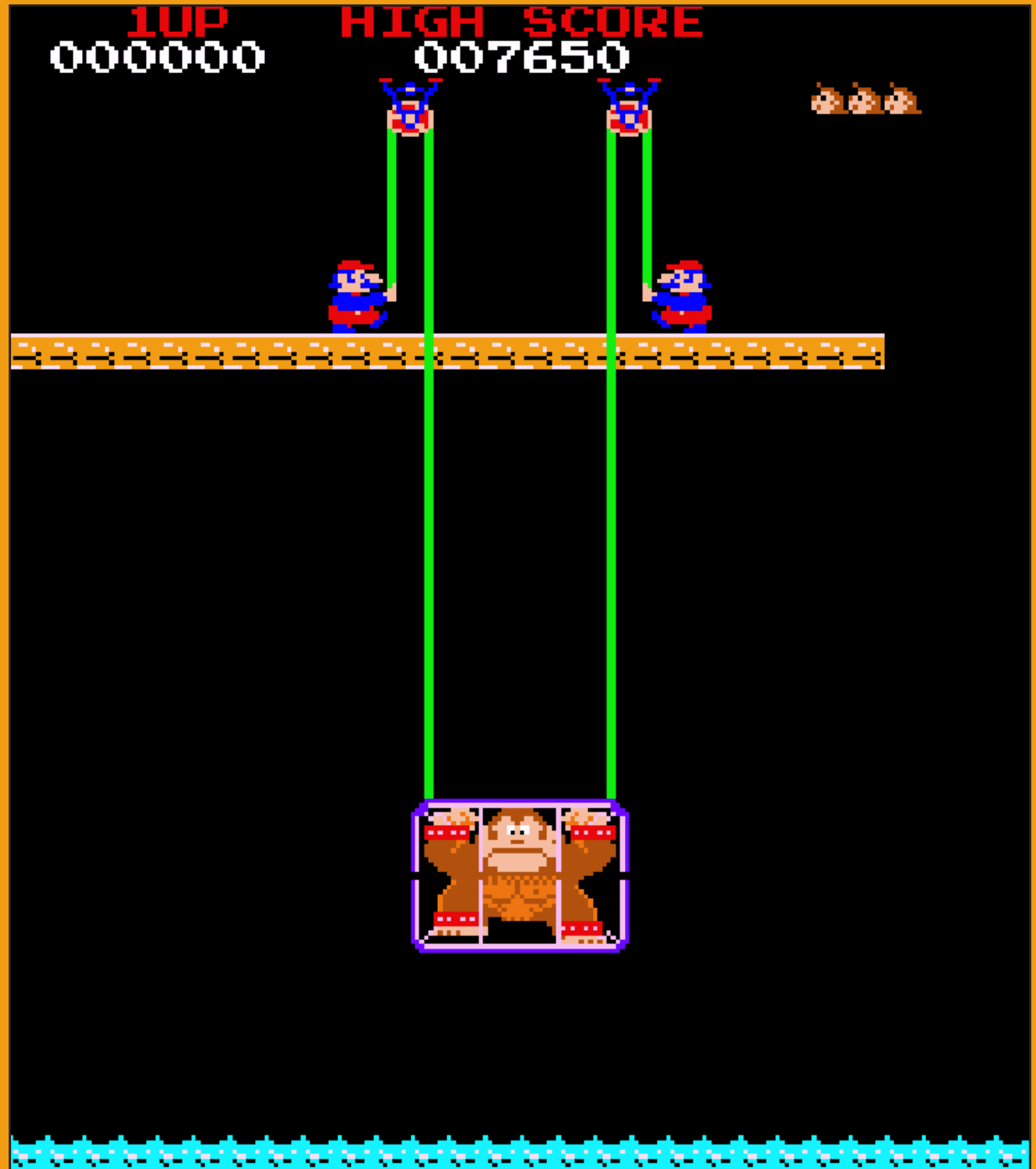
Donkey Kong Jr.

Year: 1982

Format: Arcade

Also available on: Atari 2600 & 7800,
Atari XE, Game & Watch, BBC Micro,
ColecoVision, Coleco ADAM, Intel-
livision, NES, Game Boy Advance, Wii,
3DS, Wii U

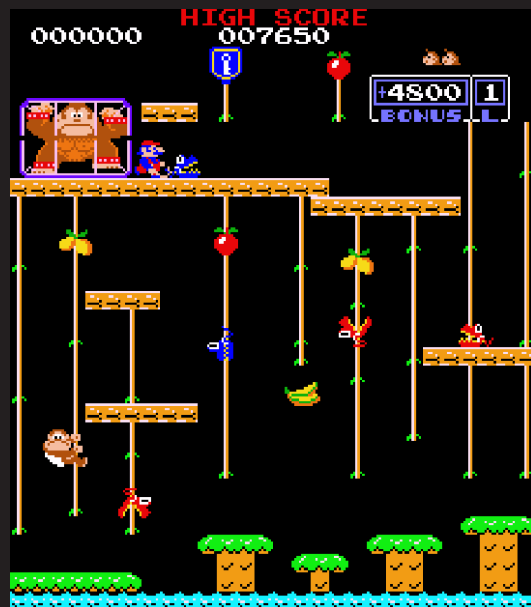
Designer: Shigeru Miyamoto (with
Yoshio Sakamoto and Gumpei Yokoi)



After *Donkey Kong* exploded into what was the single biggest of success to that point for Nintendo, a company more than 80 years old at that point, a sequel became inevitable. Nintendo didn't really know how video game sequels are supposed to work in those days, though, so they went about making a follow-up in a completely different way than just about every other game maker of the era. Back in 1982, sequel were usually just faster, more difficult, or simply more graphically impressive versions of the original game. Kind of like now! But even more so. I mean, yeah, you can only do so much with Pong. But *Space Invaders*' sequels just added color or other small features; *Ms. Pac-Man* even began life as a ROM hack.

Donkey Kong Jr., on the other hand, threw out a good many of the elements that defined *Donkey Kong* to create something wildly different through still recognizable as a successor. This proved to be both good and bad. Let's talk about why.

Like the first game, *Jr.* spans four single-



screen action sequences. And, much as in the original, the first three levels find you at the bottom of the screen working your way to the top in a sort of obstacle course zig-zag. The fourth and final level takes a more open form requiring you to unmake the stage's structure. As before, the protagonist—in this instance Kong's son, I guess?—lacks offensive capabilities outside of a small number of objects contained within the environment, forcing players to go on the defensive most of the time. You can move in four directions and jump. And that's about it.

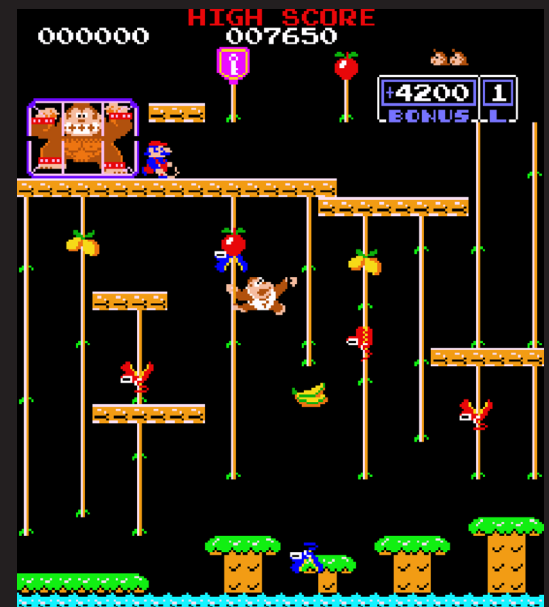
The radical change that *Jr.* brings with it is a fundamental shift in the orientation of the action. *Donkey Kong* was the ur-platformer, consisting of large horizontal swaths of real estate linked by vertical elements (ladders, elevators) that took Mario out of his safety zone and placed him in an elevated state of risk. With the new protagonist for *Jr.* comes a difference in the core action of the game. Junior is an ape, not a human, and as such he moves about differently. The primary emphasis of movement in *Jr.* is verticality, not the horizontal. You spend most of the game climbing vines rather than running, and Junior's horizontal motion is hampered by his simian nature. His body is more elongated than Mario's, making him more awkward to control on the ground. He jumps less gracefully, too. Junior's in his element while climbing, and the game reflects this in its design.

The obvious downside here is that climbing is more complex than walking. Maybe it just feels that way to me because I'm not a monkey. No, wait, it really is. When Mario walks, he can move left or right, jump straight up, or jump in an arc to the left or right. On a ladder, he can climb up or down. Junior can do all of these things as well, but the vines and chains that fill these levels offer greater choice of movement to add to the mix. Junior can cling to either the left or right side of a vine, and so traveling horizontally requires twice as many actions as you'd expect: Jump on a vine from the left (Junior will cling to the left side), then tap right once

to shift to the right side, tap again to reach out for the nearest vine to the right, and finally tap one last time to shift entirely to the second vine.

The trade-off for these added convolutions is greater precision and intricacy in play. Junior can hold onto vines two different ways—clinging to a single vine or to two at once—and these choices affect how you navigate the levels. When holding one vine, Junior climbs slo-o-o-o-owly, but he's more compact and less vulnerable, and he can slide down a vine quickly. Holding two vines, he climbs more quickly and descends sluggishly.

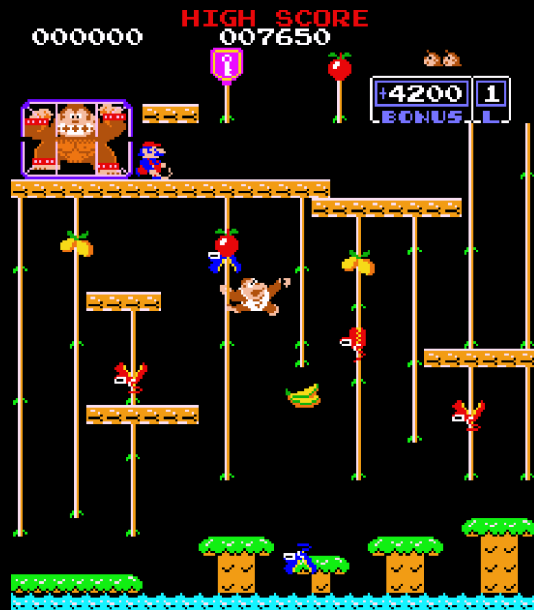
Junior's handling takes some getting used to, and the first level makes allowances for newcomers. You basically have two routes to the upper level: You can go via vine, quickly but with greater need for skill, or you can take the lower route and leap from rock to rock in a more traditional platformer style. The latter route is by far the less effective of the two. It's slower, less precise—Junior's tricky to platform with thanks to his odd shape, which becomes even more pronounced in its weirdness



when he jumps and extends a hand forward—and once you start climbing you have to double back anyway to bypass the platform midway up the rightmost vines. You have to do some platforming either way, since there's a gap too wide to be crossed via vine in the middle of the screen, but going by ground only is slower, dodgier, and causes you to miss out on scoring opportunities.

Complicating the stage navigation, Mario (this villain of this piece) has set what appear to be living steel traps loose on the vines. Maybe they're supposed to be snakes, I don't know. Whatever the case, the red ones patrol the vines, moving down and then up before slithering onto the platform to which the vines are attached and moving over to a different vine. They move somewhat randomly, but once they start traveling along a vine they'll always move all the way to its end before doubling back, making them somewhat predictable.

The blue ones, however, are much more dangerous. Mario releases them at regular intervals and they snap along the top level before ducking down a vine and chomping a path all the way off the screen.

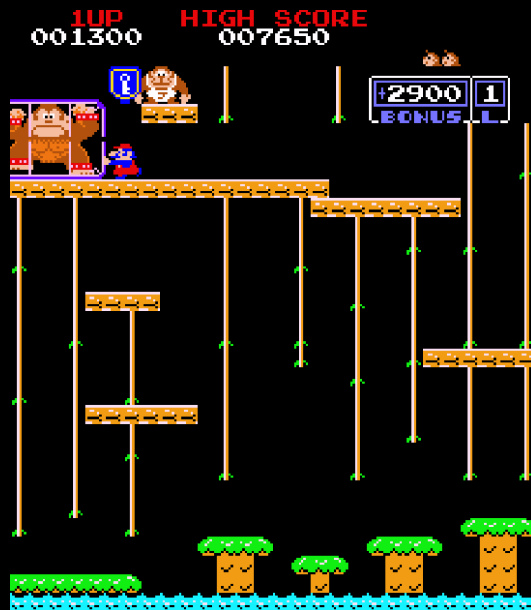


They move far more quickly than the red ones, and they constantly regenerate (whereas if you manage to destroy a red one it's gone forever), but because they travel a one-way route their threat is somewhat diminished.

Simply coming into contact with a snake/trap—even its tail!—is doom for Junior. Still, he does have a weapon of sorts in the form of the fruit that appears around the screen. Touch a fruit and you'll knock it loose, causing it to fall and take out any enemies that happen to appear along its path. In *Dig-Dug* style, if you're good enough to hit multiple enemies with a single fruit, you'll rack up major bonus points. You can even use a touch of finesse when fruiting a foe; if you touch both a fruit and an enemy at the same time, it'll count in your favor.

The stage ends once you climb the upper central vines, grab the key, and move toward Kong on the topmost platform... which causes Mario to abscond with the gorilla, much to Junior's confusion.

I'll say this for the second level of *Donkey Kong Jr.*: It does a much better job of being a second level than the second level of its predecessor did. This



feels like a logical extrapolation of mechanics from the first stage combined with new features and challenges. Another nice detail: The first thing you face here is a spring, which is a repurposed jack from the third stage of *Donkey Kong*. Neat!

And that's about where the good ends. Well, maybe that's an exaggeration, but this stage sees the designers' reach exceeding their grasp. Not entirely unlike what Junior's sprite looks like when he jumps. It's metaphorical, maybe.

As often tends to be the case with games that break new ground, you can see some really inventive ideas on display here, but the tech and programming and general understanding of how video games work—or would come to work eventually—wasn't entirely in place yet. I can't be too hard on *Donkey Kong Jr.*, because everything about it is pretty solid... except the way all the parts fit together.

Stage two here involves a remarkable number of platforms, some of which move. This may remind you of *Donkey Kong*'s stage three, and in fact I don't think the presence of the spring jack is an accident. Despite its differences from the first game, *Jr.* adheres to many of the same beats as its predecessor. So here you have moving platforms, though they drift left to right instead of vertically (because Junior moves best vertically); the platforms run perpendicular to his personal orientation.

The analogue doesn't work perfectly, because Junior still jumps to get about, and his jumps obey the same approximate physics as Mario's. They're also less precise, because Junior's sprite is larger along the horizontal axis and sticks his arms and legs out. His shape shifts as he jumps, which introduces a small element of visual uncertainty to the action—small, but enough to make the game play a little more awkwardly than it should.

The stage begins with a bounce off the spring jack, with the apex of Junior's rebound bringing his head even with the moving platform immediately above. It actually looks a bit like he could grab onto or otherwise mount the platform, but quite the opposite:

If you're not careful about how you jump, Junior's head will clonk into it and he'll fall to his death. Whoops.

The spring jack takes you to another solid platform, provided you don't hit your head and plunge to your death. Beyond that, however, is the first moving platform. It's pretty easy to hit: As a double-sized platform, it's a big target that spends very little time outside of Junior's inherent jumping range, and it's below the platform from which you jump, so you have a lot of grace with your jump's arc. From there, you jump to the right and climb a vine. In a nice touch, the vine here is accompanied by a second one running parallel to it so you can zip up quickly if you wish.

Beyond here, though, the game becomes surprisingly taxing. The next jump is a major sticking point in a *Donkey Kong Jr.* playthrough, because you're dealing with two hazards at once, both of which run on a cycle that tends to make them overlap in a very difficult way. The only way forward is to hop onto a vine hanging from a pulley reel. It moves back and forth, alternately getting longer and shorter as it does so. It doesn't come as close to the upper platform as the moving floor below came to Junior's disembarkation point, and due to its

retraction it generally appears above Junior's head. In short, it's a tricky jump.

At the same time, Mario is releasing a stream of birds that fly straight away from him then take a sharp downward turn when they reach a gap in the floor at the top level. Once they drop, they take another sharp turn, doubling back to fly off the left edge of the screen below Mario. As they drop, they let loose an egg. The egg, which will instantly kill Junior upon contact, always lands at the left edge of the platform from which you have to leap to grab onto the pulley vines.

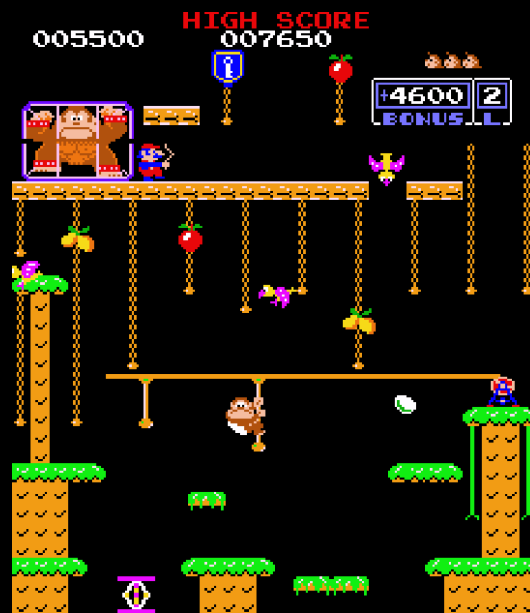
Due to a quirk in the game's timing, the short window in which you can leap over to the vine has a tendency to overlap with the short window in which an egg is smashing fatally against the portion of the platform from which you have to leap to reach the vine. Time is ticking down, but you'll frequently find yourself stuck here waiting for these two elements to fall out of sync, allowing you to make your leap in safety.

Once you manage to reach the vine, you're safe from eggs, but your lot is no less difficult: You have to drop from the vine onto another moving platform. This one is half the width of the lower platform, and you

really need to have a grasp on Junior's vine-maneuvering physics to fall precisely onto the tiny moving object. It feels slippery and imprecise.

Once you make it past the jumps, the remainder of the stage is a breeze. It puts Junior in his natural element—shuffling along vines—and provided you have a good grasp on rising versus falling (two-vine grip versus one) in order to dodge the birds that zip along at variable heights, it doesn't take much time to reach Mario's perch.

In a game of a more recent vintage, this stage would be a lot of fun. It features lots of different challenges—a shocking number for the time, honestly—that require you to apply a wide variety of disciplines and skills in order to reach the top. You're jumping, bouncing, climbing, dealing with different kinds of moving scenery, and dodging bad guys. It's impressive! But it's not much fun, because poor Junior is saddled with 1982 controls and physics. His jump is limited and visually ambiguous. He moves slowly and feels clumsy. Nintendo laid down a bunch of great ideas they'd explore in later games with this level, but here it doesn't quite gel. A+ for Ambition, but C- for Execution.



Donkey Kong Jr.'s repetition of its predecessor's beats continues here. Where its second level resembles *Donkey Kong*'s third stage, the third level here somewhat evokes *Donkey Kong*'s second stage.

Which is to say, it's the low point of the game.

The problem with this screen is similar to the one with the cement factory: It throws a lot of different things at the player all at once, while taking the main character out of his natural element. This electrical station removes Junior from the vines where he moves most gracefully, playing instead more like a scenario that should star Mario. It's all about moving left to right, right to left, jumping over obstacles all the while. The hazards even resemble the barrels from the first stage of *Donkey Kong* in terms of their movement: Yellow sparks circle the filaments, while blue sparks descend on those dotted lines that appear to be... well, I'm not really sure what they are. They kind of look like sprinkles of water, but they don't move, and in any case it doesn't make sense for electrodes to drip water. It's an odd failure of visual design.

The rules of this stage are pretty easy to grasp. Horizontal platforming is more intuitive than vine-climb-

ing, after all. But Junior doesn't manage flat stretches of ground as well as he does clusters of vines, and the hazards come fast and furious. The different colors of sparks move at different speeds, and the blue ones can be slightly unpredictable. By the time you're on the third level up, Junior is dealing with a huge number of moving obstacles—enough to make you pine for that one egg-drop bit of stage two. Success here is contingent on Junior navigating two-speed threats on a tricky surface.

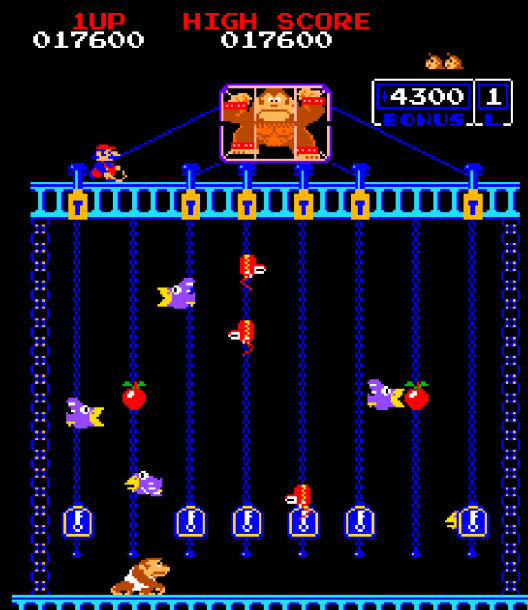
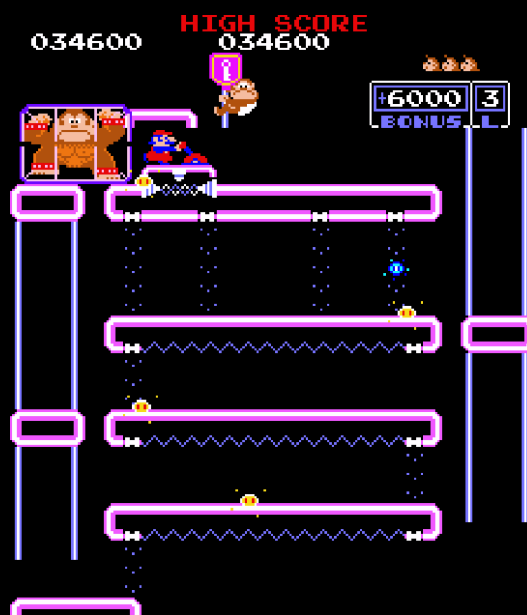
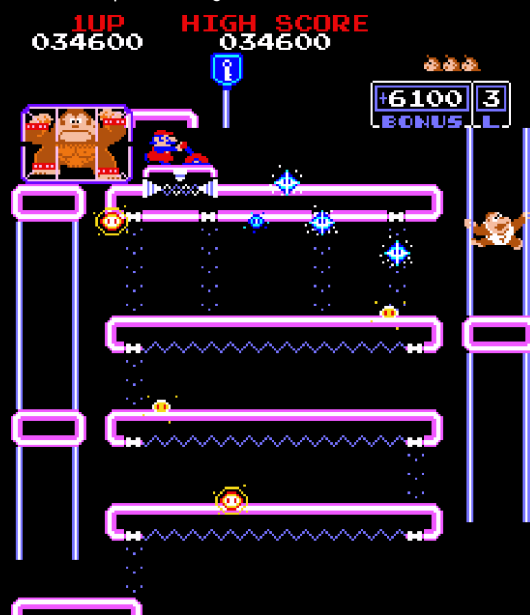
Beyond that, there's really nothing much to this stage. It's easily the most straightforward level so far in the game, with each level presenting small variations on the central design challenge. The difficulty comes in the way it doesn't play to Donkey Kong Jr.'s strengths; Nintendo created a game in which optimal play happens suspended above the ground, then plopped a stage about dashing across the ground in the middle. There's certainly nothing wrong with mixing things up, but as in stage two the problem comes from the fact that the basic platforming mechanics in *Donkey Kong Jr.* simply aren't very good.

On the plus side, the game at least ends well.

The final stage of *Donkey Kong Jr.* neatly embodies the gestalt of the entire game. It calls to mind the equivalent level of the original *Donkey Kong*, yet its familiar objects finds itself turned (literally) sideways to make use of Junior's vertical agility.

You remember the final stage of *Donkey Kong*, yes? The construction site in which Mario collected rivets to cause the structure to topple, stunning Kong and allowing the hero to rescue Pauline? You'll find echoes of that here, as Junior works to free his father and get the best of the villainous Mario. Rather than removing bolts, however, you're instead inserting keys into locks that will unchain Kong. The logic of the level is a little odd, Mario having left the key for each lock hanging from the chain that particular lock binds down, but, you know... video games.

So we have eight chains and six locks. This stage sees Junior in his ideal element, as the action transpires almost entirely on chains spaced evenly across the stage. Gone is the troublesome platforming; once you hop onto the chains at the beginning, there's really no reason to touch the ground for the remainder of the stage. As such, this level requires an understanding of Junior's climbing mechanics, but once you do it



becomes a joy to navigate: A test of your ability to assert dominances over the game's control scheme.

Each key you slide to the top of the stage unlocks a portion of Kong's chains. You can set yourself back if you're not careful—an unused key can just as easily be pushed down as it can be lifted up—but thanks to the placement of the chains you're actually better off pushing multiple keys at a time whenever possible.

The stage isn't without risk; Mario releases birds that behave like the ones in stage two. Actually, they're even more dangerous than in the previous stage. The other birds made a single U-turn upon reaching the right edge of the screen, but these continue to work their way back and forth, crossing the screen several times at different levels. They're capable of flying at varied heights at each flight level, too, so you can't count on any single spot of the screen being a guaranteed safe zone. You need to stay on the move constantly in order to evade the birds, several of which can be on the screen at once (this is where you encounter the risk of accidentally pushing the keys back down as you slide to stay clear of their flight path).

In addition to the lateral threat posed by the birds, Junior also has to contend with several of the Snapjaw traps that climb up and down the chains. These

are the red variety, meaning they move more slowly and don't respawn like the blue ones do—but also unlike the blue ones, they'll double back at the end of a chain and climb back to the top of the screen, meaning you need to watch for danger moving toward you in all four directions. It's a simple combination of challenges, but effective: Between the birds and the Snapjaws, Junior's enemies create a thorough dragnet of danger that covers practically every inch of the screen.

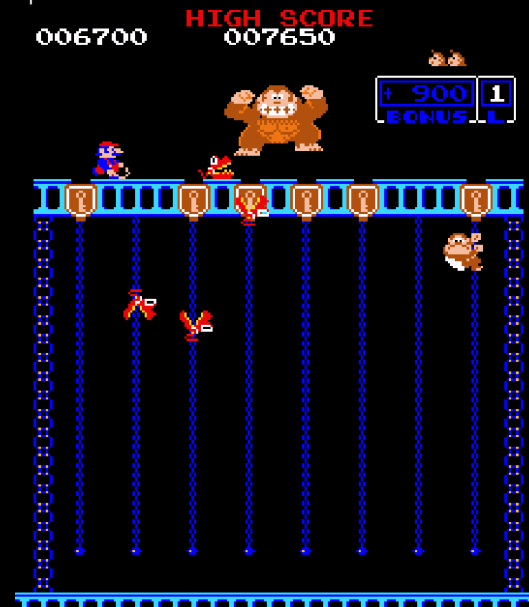
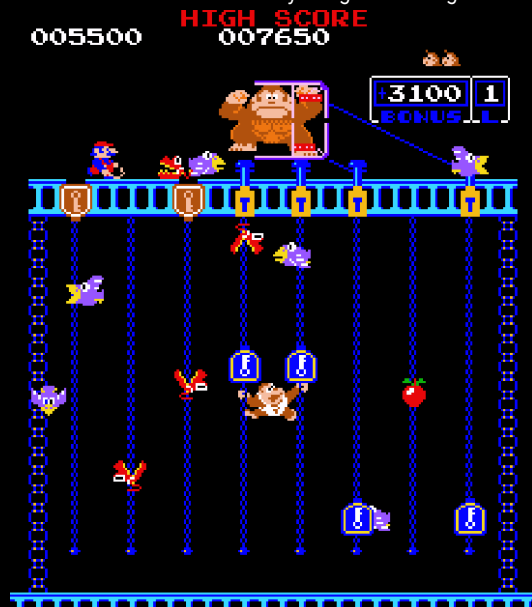
Nevertheless, because it emphasizes the skill set around which the game is primarily designed, the final level is much less difficult than the second and third. That's not a knock against the stage; on the contrary, it's a good thing. Much of what made the earlier levels so difficult stemmed from the inconsistency and unreliability of Junior's platforming controls, and the fact that the protagonist was so poorly suited to some of those situations. Here, we have a stage in which the game's mechanical innovations are put to their full use, forcing you to fully grasp the differences between quick climbing (with a spread grip on multiple chains) and a quick descent (with a double-handed grip on a single chain).

It's a great finale to the game, though the fact that this all-climbing scenario didn't appear earlier is a real shame. It feels like *Donkey Kong Jr.* ends right as it's

finding its groove. And that's basically the problem with *Donkey Kong Jr.* in a nutshell. While it's an admirably ambitious attempt at creating a sequel that didn't simply coast on the success of its predecessor, it doesn't live up to the high standard set by the original *Donkey Kong*. It lacks *Kong's* purity of design and focus, adding new skills for the player to master. That's a good thing to be sure, but Junior's expanded repertoire comes at the expense of his core platforming abilities. He's both clumsier and more complex than Mario, and the layout of several of the stages betray this fact with their unwillingness to let go of *Donkey Kong's* basic platforming.

While many of *Donkey Kong Jr.*'s sequences play cleverly off scenarios from the first adventure, they lack that final touch of perfectionism that makes so many of the games surrounding it on either side of the franchise true classics. It's a good game bordering at times on excellent—but it's not at all the masterpiece its predecessor was.

Still, you shouldn't write it off. It allowed Shigeru Miyamoto and his peers to experiment with new ideas, get a sense of what worked and what didn't, and double down on the series' strengths. Not coincidentally, many of its elements and concepts would show up further down the road.



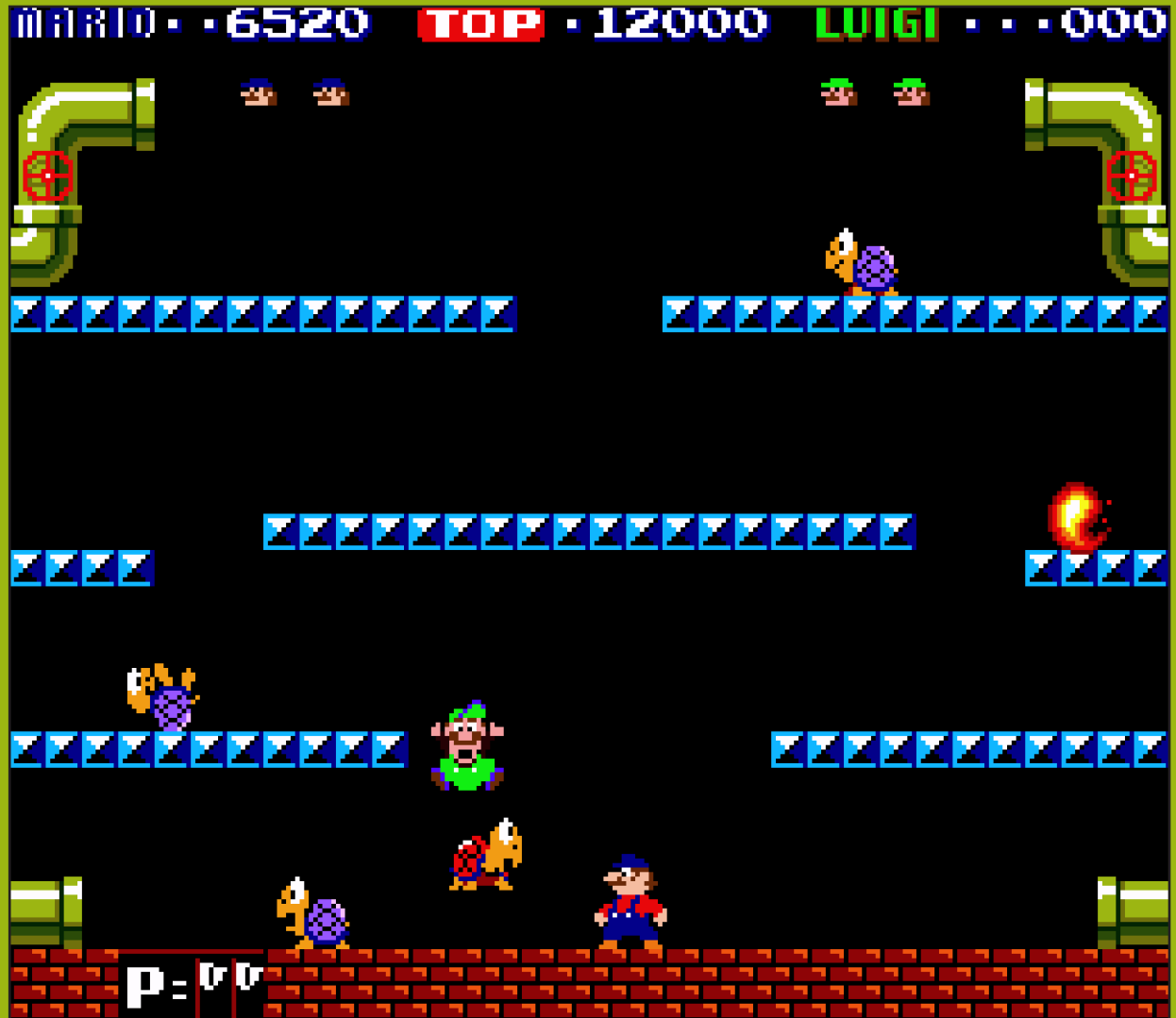
Mario Bros.

Year: 1983

Format: Arcade

Also available on: Atari 2600, 5200
& 7800, Atari ST, Apple II, Game &
Watch, Amstrad CPC, Commodore 64,
ZX Spectrum, NES, Game Boy Advance,
GameCube, Wii, 3DS, Wii U

Designer: Shigeru Miyamoto (with
Gumpei Yokoi)



After featuring Mario as a villain in *Donkey Kong Jr.*, Nintendo's next title in the *Donkey Kong* series... had nothing whatsoever to do with Kong. Instead, it focused solely on Mario, once again in the role of protagonist, in a game that in many ways seemed like a step backward in terms of design yet nevertheless paved the way for many masterpieces yet to come. I'm referring, of course, to *Mario Bros.*

How was it a step backward, you ask? Well, for one thing, it begins by completely sidestepping the *Donkey Kong* games' "learn by doing" approach to design. Where both of its predecessors began with a simple plot setup leading directly into a gameplay scenario that taught players what they needed to do through clever visual cues and the thoughtful arrangement of on-screen objects, *Mario Bros.* gives you this when you first begin:



A quick, three-point tutorial on how to defeat the game's enemies. Admittedly, the mechanics were fairly elaborate for an arcade game in 1983 (the same year that *Dragon's Lair* dressed up mundane joystick presses with pretty artwork), but it seems sort of strange to see such no-frills instructions given before a vintage Nintendo game like this.

By returning to Mario as the protagonist, *Mario Bros.* brought back the more limited and intuitive mechanics of the original *Donkey Kong*. Mario here can run and jump, and that's about it; he runs along hori-



zontal surfaces, and horizontal movement is handled by jumping. He doesn't even get to smack things with a hammer. One button is all you need.

However, Mario's controls and physics aren't simply carried over from the original *Donkey Kong* whole cloth. They've expanded and improved, with greater (albeit subtle) complexity for the player to contend with. Mario can now fall from any height—something you immediately take as given and for granted, as dropping from a high ledge is the only way to descend from the upper levels—and his jump has less forward momentum. Leaping in *Donkey Kong* was about vaulting hazards and traversing platforms, but that's not the goal here. The platforming is utterly rudimentary, with the only danger inherent in jumping coming from the possibility of landing on an enemy, and you don't earn points for soaring over a foe. The main purpose of a jump in *Mario Bros.* is to reach a higher platform and punch the ground from beneath an enemy's feet, and for both purposes a more vertical arc is essential. The change takes some getting used to, but it's a case of being given the proper tools for the job.

The other significant change for Mario comes in the addition of inertia. Movement in *Donkey Kong* was fairly binary: You were either moving or you weren't, and once you stopped moving Mario would come to a stop almost immediately. He could turn on a dime. That's not the case here; Mario spends the entire game dashing right and left, back and forth, but

reversing direction isn't as simple as making an instant change in direction. Instead, when you switch directions, Mario skids to a stop, his momentum taking him about a step forward before he's able to turn about. Furthermore, when you begin running in either direction, Mario needs a couple of steps to warm up and get up to speed.

All of this would have been disastrous in *Donkey Kong*, a game of pixel-precise jumps and zero forgiveness for errors. In *Mario Bros.*, however, it works just fine, as you never have to worry about sliding into a pit or not working up enough forward momentum to clear a pit. Given the simplified nature of its action, *Mario Bros.* could afford to experiment a bit with how Mario moved.

And the second major step backward appears as soon as you begin the first stage. This is a very different kind of game than *Donkey Kong* and *Donkey Kong Jr.* In many ways, it's an older style of action. Mario's first adventure offered quite the revolution in challenging players to best four different action scenarios, each completely different than the last. *Donkey Kong* was about earning a high score, yes, but you can legitimately consider the game "complete" upon conquering the fourth stage.

Mario Bros., on the other hand, never really changes. The screen layout remains consistent no matter how many stages you advance into the action. You're always running through a four-tier wraparound sewer system flanked at the top and bottom by pipes that dis-





gorge (or accept) monsters. The gaps always appear in the same places. And the slight elevation of the central platform remains consistent as well.

Someone at Nintendo seemed to be a pretty big fan of Midway's *Joust*, because both this game and *Balloon Fight* demonstrate considerable design influence from John Newcomer's masterpiece. *Balloon Fight* is the more obvious descendent, but *Mario Bros.*—with its tiered platforms and two-player simultaneous action—owes *Joust* a debt of gratitude as well.

Why the regressive approach from *Donkey Kong*? I can think of a few possible explanations.

For starters, the *Donkey Kong* games are defined by their restless design. Despite some consistency of concepts from game to game, no two *Donkey Kong* titles were ever alike until *Donkey Kong Country 2* in 1995. As a spin-off, *Mario Bros.* gave Nintendo even more freedom to experiment with formats and mechanics.

Secondly, *Donkey Kong's* objective-based approach worked fine for a single-player game, but *Mario Bros.* is designed around multiplayer. As such, it needed to step back from the idea of running toward a goal and instead take a more sport-like approach as two players vied for top score. Of course the game is perfectly playable by one person alone, but it really shines in multiplayer. This was Nintendo's first proper experiment in multiplayer outside of their dedicated *Pong* clone console *Block Kuzushi*, so it makes sense for them to

have gone with a fairly conservative approach to get a proper handle on the ins and outs of the format.

And finally, we shouldn't forget that *Mario Bros.* debuted in arcades the same day that the Famicom console first appeared in stores. Famicom, the console whose otherwise sterling *Donkey Kong* conversion omitted an entire level for space considerations. Already Nintendo had its eye on the home market; within two years, it would produce its final dedicated arcade machine (*Arm Wrestling*) to focus entirely on consoles. With the specs of Famicom clearly defined by the point, Nintendo would have been well aware of its limitations as they were designing *Mario Bros.* It's a safe bet that the stage design, with a single layout rotating through different tile sets and color palettes, was created to ensure as faithful as possible a Famicom conversion.

The static layout doesn't mean *Mario Bros.* lacked sophistication, though. Within its very carefully designed boundaries, this is the first game that really and truly feels like what we think of as a *Mario* game. Yes, the jump is more limited, and you can't crush enemies by jumping on them. But there's a remarkable amount of complexity and nuance in the mechanics and in the way players interact with the environment, with enemies, and with one another.

For starters, the basic control setup has a wonderfully cartoonish feel. No longer tasked with simply reaching the top of the screen, Mario now takes on enemies directly. Or rather, indirectly. Lacking a means to attack them head-on, he instead punches the ground from beneath them, stunning them momentarily and leaving them vulnerable to a well-placed kick. When Mario punches the ground (and it's much clearer here than in any of the game's sequels that he is indeed punching, not smashing things with his skull), the platform buckles comically, upending whatever happens to be directly above Mario's fist. Turtles, crabs, insects, and more flip upside with a perturbed expression on their faces, fidgeting as they struggle to right themselves. Fail to kick them off the screen while they're immobilized and they return to their usual patterns, but this time angrier and faster than before (just like *Joust*).

The game's personality really shines through



the enemies. The Shellcreepers—essentially prototype Koopa Troopas—comically hop out of their shells wearing nothing but underwear to kick them upright before resuming their march. Sidesteppers (crabs) take two punches to upend, with your first punch simply sending them into their angered movement patterns. To speed things along and keep players dropping their quarters into the coin catcher, a deadly fireball blasts through the stage after about a minute, much like *Joust's* pterodactyl (and, like the pterodactyl, it's not indestructible—just very very difficult). Enemies move faster and come more frequently the longer you play, and eventually new hazards begin to appear.

Equally amusing is the opportunity for two-player interaction. Unlike previous multiplayer games, *Mario Bros.* isn't strictly competitive. Yes, you're gunning for a higher score than your partner, but it's as much about cooperation and competition. Two players working together can blast through a single stage... but more likely they'll either bumble into each other's way or deliberately sabotage one another. Jump on the other player and his character will be squashed and stunned for a split second. Hit them from below and they won't flip over, but they will fly upward—which can have deadly results if it happens at the wrong time. The spirit of help-or-hinder multiplayer is something Nintendo continues to explore with the Mario games, up to and including the upcoming *Super Mario 3D World*.

Once you reach the 10th stage or so, the

most dangerous creature in the game begins to spawn: Small ice mounds called Slipice, which slink along to the center of a platform and take root, instantly freezing that entire platform and making Mario's footing even more treacherous. I'm not sure where the idea of frozen ground creating unstable footing in a platformer came from, but this may actually be its genesis. Mario's inertia is greatly enhanced by ice, causing him to take longer to stop while running and making him slower to start up again.

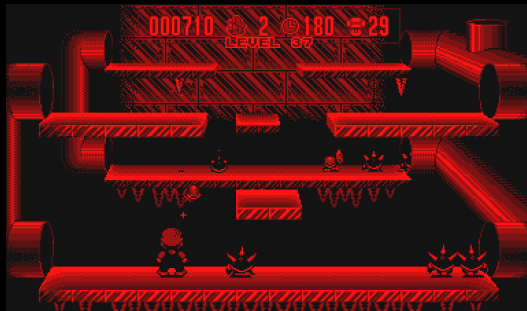
In a wonderfully thoughtful design twist, though, players are given the opportunity to get a handle on ice physics before they become a part of the standard scenario. Every few stages is a designated bonus stage in which players need simply dash as quickly as possible to collect coins scattered throughout the level minus any threats to contend with. The bonus stage immediately preceding Slipice's debut takes place



on entirely frozen ground, not only upping the difficulty of this bonus level over the one before it, but also giving you a chance to learn the dynamics of ice in a safe environment.

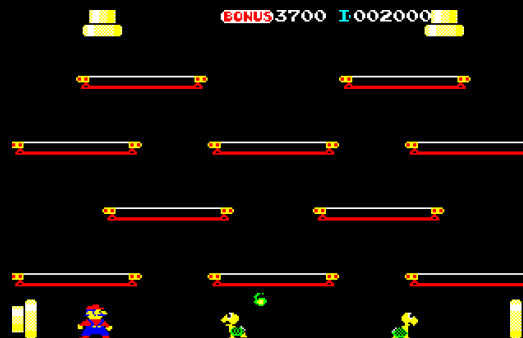
With the addition of ice in the form of both Slipice and falling icicles, *Mario Bros.* simply cranks up the speed, quantity, and frequency of its threats until it overwhelms the player. There is no end game here besides your reflexes failing you or the inevitable killscreen.

Still, despite appearing to be something of a regression into a simpler play style, *Mario Bros.* offers much to recommend it by. The specificity of its design allows for remarkable nuance and detail, and its multi-player mechanics were hugely influential. Even accounting for what they borrowed from Joust, they went a step beyond what that game had accomplished and offered a fresh, entertaining experience. *Mario Bros.* really does seem like a logical midpoint between *Donkey Kong* and *Super Mario Bros.*, and it allowed Nintendo's designers to evolve Mario's play style so they he'd be ready to revolutionize the medium a few years later.



Mario Bros. has become a commodity after Nintendo managed to cram it into five different Game Boy Advance games, and then went on to reissue the NES game as a standalone title. It was overkill market saturation for a fairly mundane arcade title. Meanwhile, deep in the dusty annals of history lurk several vastly more interesting versions of *Mario Bros.* lost to time.

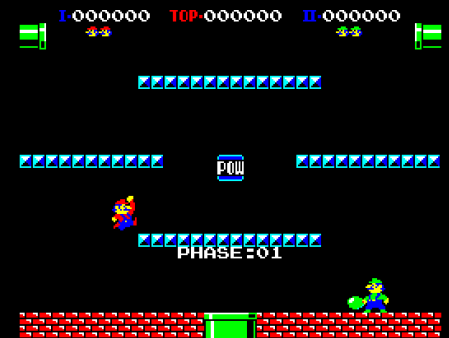
Of the three, the best known by far is *Mario Clash* for Virtual Boy—which isn't really all that well known, which should give you means by which to calibrate your awareness of the other two games. *Mario Clash* isn't an entirely pure take on *Mario Bros.*, but the



spirit is similar, simply adjusted to take advantage of the Virtual Boy's sense of visual depth.

Ten years before *Mario Clash*, though, Nintendo licensed *Mario Bros.* to Hudson for release on Japanese home computers (the X1, the PC-8801, etc.). Hudson took the license and ran with it, not unlike Midway with the *Pac-Man* license. The games they created—*Mario Bros. Special* and *Punch Ball Mario Bros.*—definitely resemble the source material, but they take wild liberties with the mechanics and design.

Mario Bros. Special brings the absent level variety of *Donkey Kong* to *Mario Bros.* With multiple



stages featuring distinct layouts and huge new challenges (like conveyer belts), the only areas in which *Mario Bros. Special* lacks compared to the arcade original are graphics and its slightly fussy controls.

Punch Ball Mario Bros. is even more interesting, robbing Mario and Luigi of the ability to topple enemies from below and instead forcing them to knock them over by tossing a ball at them. It's weird, but interesting.

Sadly, Nintendo will never acknowledge works by rogue licensees (or games on Virtual Boy), so don't hold your breath waiting to play any of these.

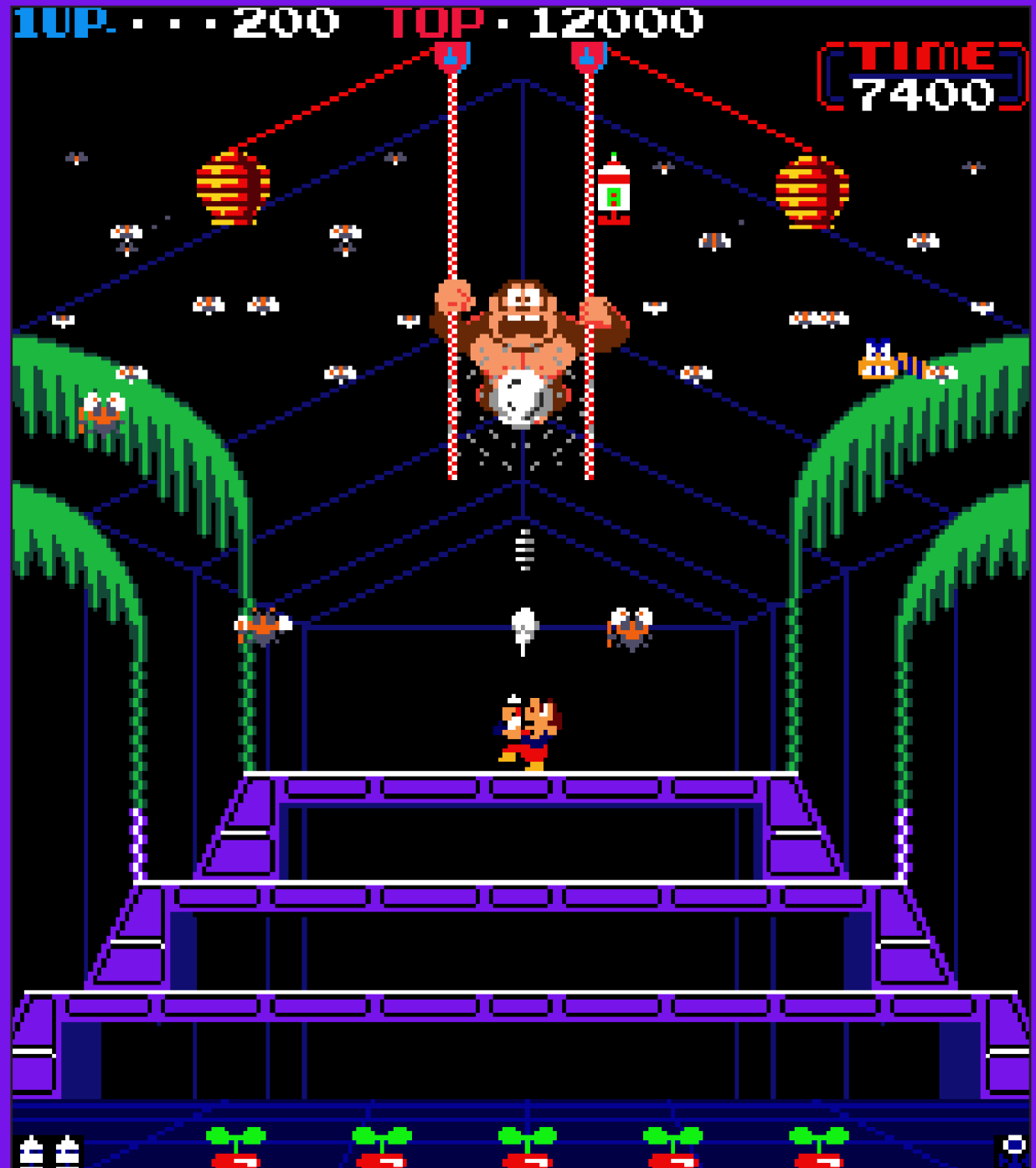
Mario Bros.

Year: 1984

Format: Arcade

Also available on: Atari 2600, 5200, & 7800, Atari XEGS, Amstrad CPC, Apple II, Commodore 64, Game & Watch, GameCube, NES, Game Boy Advance, Wii, 3DS, Wii U, ZX Spectrum

Designer: Shigeru Miyamoto (with Yoshio Sakamoto and Gumpei Yokoi)



I used to think *Zelda II* was the official Nintendo black sheep. But the preemptive strikes launched by commentators against *Donkey Kong 3* made me change my mind entirely.

Donkey Kong 3 is weird, to be sure. It represents a radical shift in style, tone, and structure from the previous *Donkey Kong* games. It's a platformer only in the most rudimentary sense of the word. It doesn't star Mario. The internal narrative makes no sense whatsoever.

To appreciate *Donkey Kong 3*, you have to look at it in a broader context than simply its predecessors. This was an attempt to do several things at once... and, much like the game mechanics featured herein, this duality of purpose made it rather confusing.

For starters, *Donkey Kong 3* debuted a few months after *Mario Bros.* The former didn't feature Mario, and the latter didn't feature Kong. We can safely assume that Shigeru Miyamoto, Gumppei Yokoi, and whoever else was involved in these games' design worked on them at least somewhat in parallel. Clearly they recognized that Mario was at least as appealing a

character as Kong and hoped to spin him into his own games with his own identity. In fact, they probably saw in Mario more of a future for sequels than Kong. Mario had a surety of purpose; Kong was all over the place. (Case in point? This game.) Players had never actually controlled Kong himself. He was a MacGuffin, a nemesis, an objective, but not a protagonist. And if we're to believe Cranky Kong is the original DK, that means the original DK has never been playable in any form.

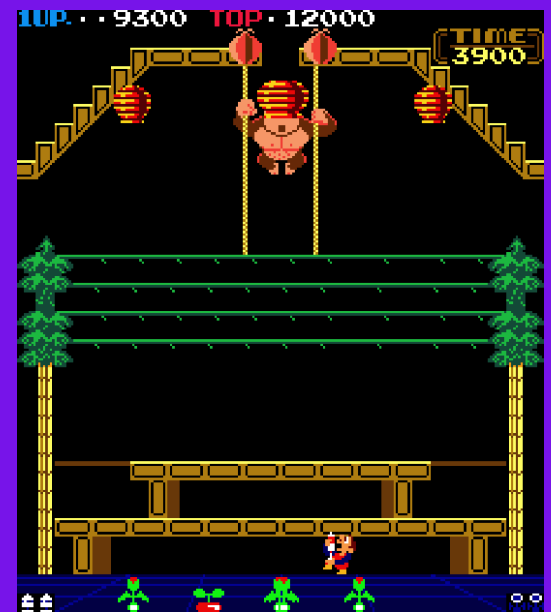
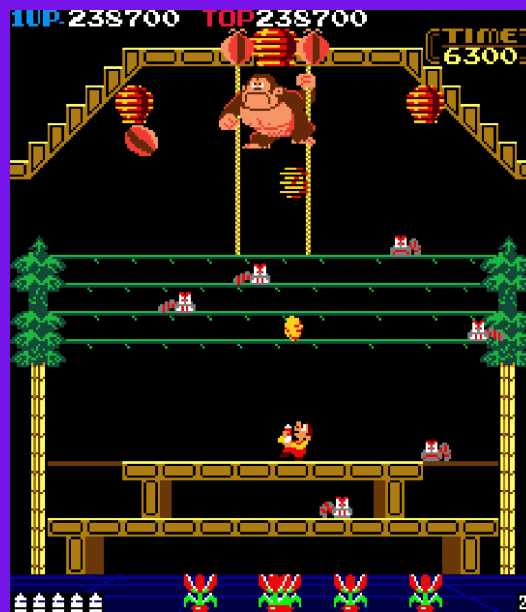
Not surprisingly, we didn't see another original Donkey Kong title for more than a decade after this. He just didn't make for as interesting a game as Mario.

The other goal behind *Donkey Kong 3*, one assumes, was to bring some Nintendo history full circle. Like *Mario Bros.*, *Donkey Kong 3* feels like an older arcade game, a regressive step back from the ever-changing, goal-oriented design of *Donkey Kong* and *Donkey Kong Jr.* It's a score attack, pure and simple, a twitch shooter in a single stage whose format never significantly changes, only its paint job. But, as with *Mario Bros.*, Nintendo was presumably thinking in terms of the looming home port and the restrictions of space that

would entail. Indeed, *Donkey Kong 3* hit the Famicom within half a year of its arcade debut.

Another possibility for these games' simplified format presents itself as well: The original *Donkey Kong* was coded by a third party, Ikegami Tsushinki, and *Donkey Kong Jr.* was allegedly based on that code without the programmers' consent. The two companies parted ways under strained conditions (litigious conditions, as a matter of fact). *Mario Bros.* and *Donkey Kong 3* appear to have been Nintendo's first attempts to bring development entirely back in-house, and as such their programmers may not have had the expertise necessary to create works as complex and intricate as the original *Kong*. That skill would certainly come in time (as *Super Mario Bros.* and *The Legend of Zelda* prove), but in Nintendo's projects from 1983 may demonstrate them doing the best they could. Of course, this is all speculation based on bits and pieces I've gathered from other resources, but certainly those bits and pieces seem to fit together. If anyone has more concrete information, please, straighten me out.

Anyway, the Nintendo history angle: If *Don-*



key *Kong 3* feels regressive, that's because its design draws on a much older Nintendo game, an early *Space Invaders*-style shooter called *Space Fire Bird*. Many of the enemies in *Donkey Kong 3* behave exactly like foes that appeared in *Space Fire Bird*, most notably the way certain bees zoom down and explode into four deadly fragments of shrapnel when destroyed.

This doesn't mean *Donkey Kong 3* is a direct reworking, though. It adds a lot of new elements, many of which are seemingly culled from other popular games of the time. As you fire at foes with a DDT pump, enemy bees are swooping down in an attempt to steal the vegetables lined up along the bottom row of the screen. They pluck them away, then dart back up to their hives—a trait seemingly adopted from *Defender*'s alien abductions. Successfully stealing a vegetable transforms a basic bee into a much deadlier form, just like *Defender*'s Mutants. Meanwhile, caterpillars will drop to the platforms below, making the ground itself treacherous, very similar to the errant sparks that attempt to rise up and circle the rim of the tube in *Tempest*. Or maybe like that obnoxious spider in *Centipede*.

But most of all, Mario's erstwhile replace-

ment, Stanley the Bugman, isn't simply gunning down enemies. There's no way to clear a round by simply destroying bees. Your true objective in *Donkey Kong 3* is to blast Kong in the rump with the DDT gun until he scoots his way off screen. Everything else is simply a distraction; you can win a round without ever shooting a single insect, and the faster you can force Kong to the top of the greenhouse the less danger you're in of the bugs stealing your plants.

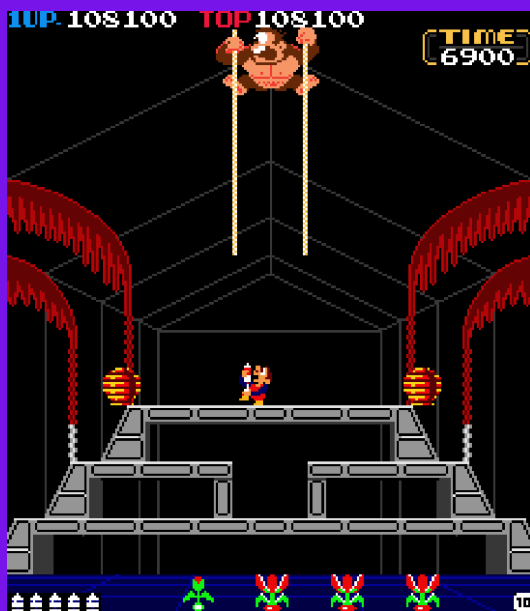
Why has Kong decided to harass a simple gardener? God knows. But he's clearly the antagonist here, throttling beehives to enrage the bugs within until they swoop down and attack Stanley. It's weirdly macabre, too; when Stanley fails, he doesn't simply fall over with a halo above his head. No, he stumbles to the ground and a swarm of bugs swoops down and covers his body, then disperses, leaving... nothing. (15 years later, Hideo Kojima would totally rip this off for Vulcan Raven's death scene.)

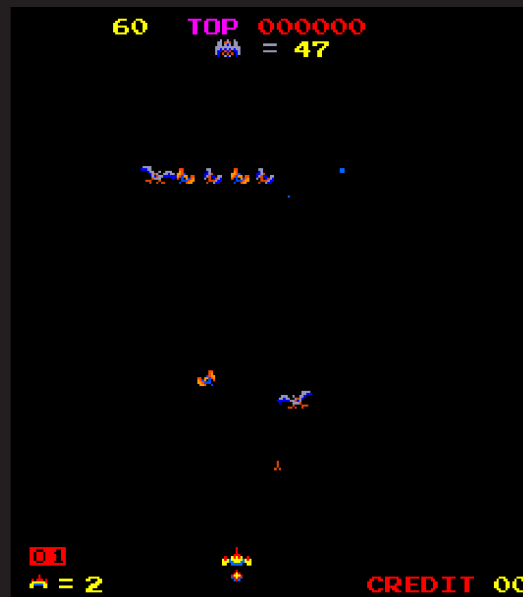
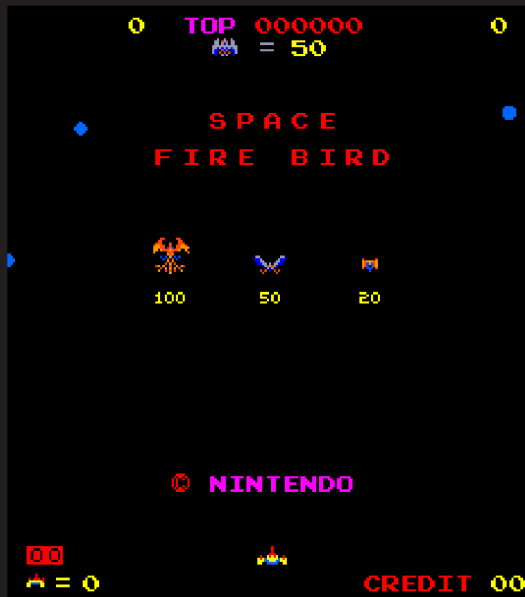
Oh, and there is one little nod to *Donkey Kong* tradition: At the end of a stage cycle, Kong gets his head stuck in a beehive and falls to the ground, stunned. So there's a sort of narrative arc, even if it makes no real

sense and offers no motivation.

Donkey Kong 3 is a little too complex and abstract for its own good, but—and this is the important thing—it's not a bad game. A bad *Donkey Kong* sequel, perhaps, but fun in its own right. Honestly, the fact that Nintendo didn't do anything with Kong for the next decade outside of an edutainment spin-off and making Junior a racer in *Super Mario Kart* suggests that they knew they'd run out of good ideas for the character at this point. One can only wonder what the abortive *Return of Donkey Kong* for NES would have been. With luck, Satoru Iwata will ask Shigeru Miyamoto about it some day for our edification.

In any case, *Donkey Kong 3* turned out to be a sort of evolutionary dead-end that had nothing to do with Mario, and barely anything to do with *Donkey Kong*. Still, taken for what it is—a simple reworking of a very early arcade game—it's really not too shabby. The difficulty ramps up quickly, and it does a good job of throwing new and different hazards into the mix as you advance through the levels. A solid game, if not exactly a worthy successor to one of the greatest arcade games of all time. But that would come soon enough.





Space Fire Bird

Year: 1980

Format: Arcade

Designer: Genya Takeda (with Shigeru Miyamoto and Ikegami Tsushinki)

To properly understand what *Donkey Kong 3* was all about, and why it strayed so far from the fundamental platforming concepts of the first two chapters of the series, you need to delve a little further back into Nintendo's history—the part of history that Nintendo itself rarely acknowledges. Yes, the company produced arcade games long before *Donkey Kong* came around. None of them were particularly successful... but they existed. And with *Donkey Kong 3*, Miyamoto revisited elements one of his older projects, *Space Fire Bird*, and gave it a *Donkey Kong* facelift (albeit one missing Mario).

Let's look back to 1980. One year before *Donkey Kong*, Nintendo was eagerly mining the same rich vein of *Space Invaders* mania as the rest of the industry. The craze was already cooling by 1980 (hence *Radar Scope*'s infamous failure), but *Space Fire Bird* still stood out. Like 1979's *Galaxian*, it featured vivid full-color sprites against its inky space background, but it was no mere *Galaxian* clone. *Space Fire Bird* added some interesting complications to the shooter format.

As a matter of fact, it's these twists that made the move to *Donkey Kong 3*. On the surface of things, the two games appear to be nothing alike. But certain

enemy patterns and behaviors seem too similar to be a mere coincidence. (Its debut around the same time as Centuri's space shooter *Phoenix*, however, totally was.)

The enemies in both *Space Fire Bird* and *Donkey Kong 3* behave with similar flight patterns. But more tellingly, a couple of creatures use the exact same tactics: Like the caterpillar's stinger, the fire bird's bombs can be destroyed, but they both split into deadly shrapnel upon impact, making them safer just to leave alone.

Another interesting parallel comes in the games' temporary power-up. Stanley the Bugman gets a hyperactive spray that forces Kong quickly upward for an instant win; the player's ship in *Space Fire Bird* can occasionally acquire a force field that sends the ship to the top of the screen where it's invincible.

While the two games are decidedly their own separate things, enough elements of *Space Fire Bird* resurfaced in *Donkey Kong 3* to help explain why the latter game fit so awkwardly among its more immediate predecessors: Its creators were drawing inspiration from an older age of games—and frankly, *Donkey Kong 3* is about as close as Nintendo will ever come to acknowledging its primal arcade roots.

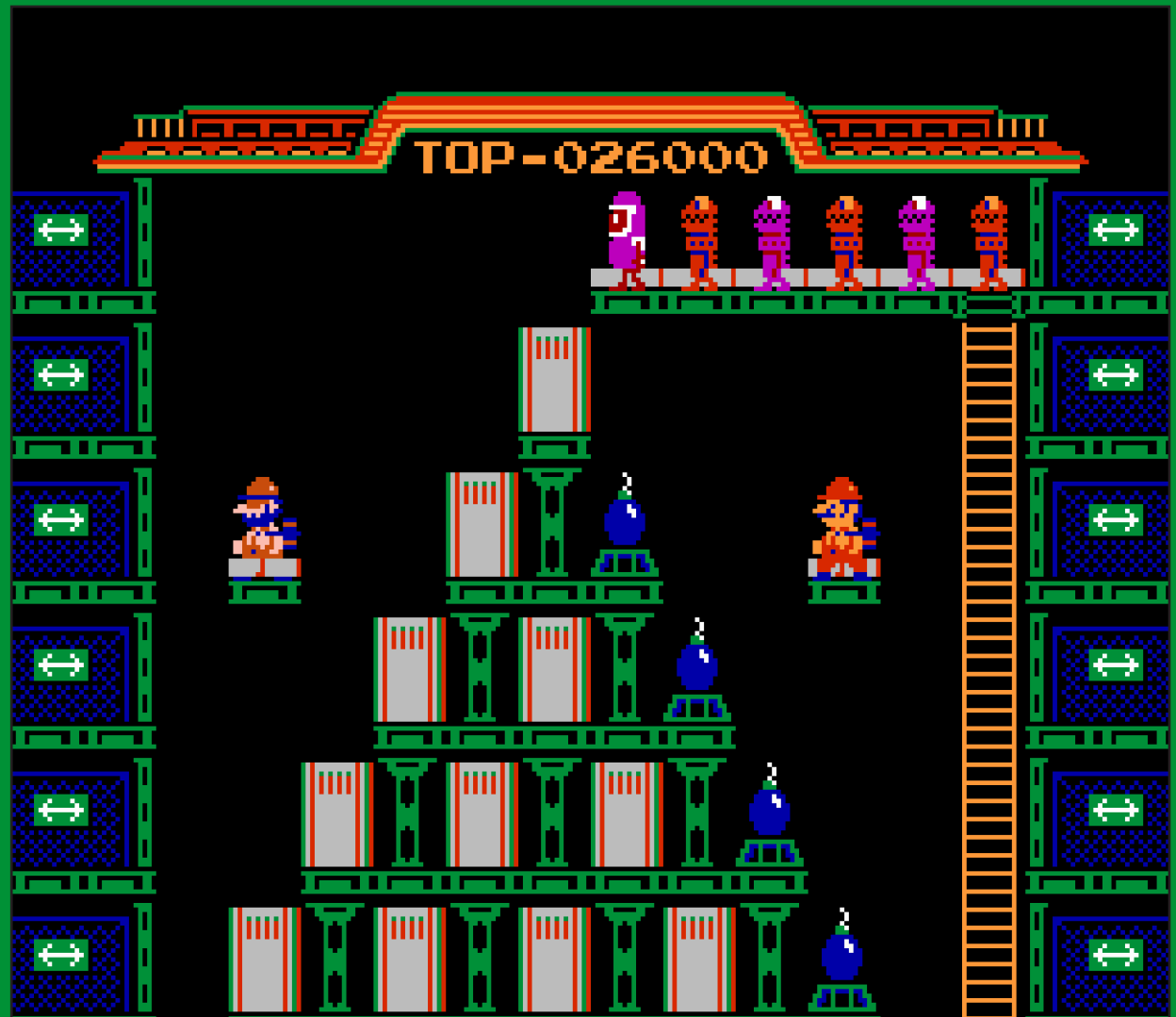
Donkey Kong 3

Year: 1983

Format: NES

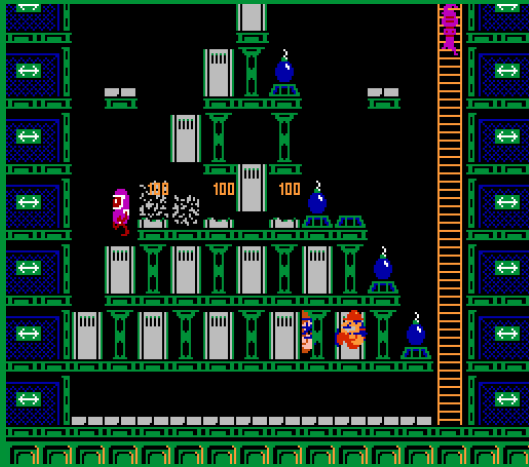
Also available on: 3DS, Wii, Wii U

Designer: Yoshio Sakamoto



Before Mario leapt into the page of legend with *Super Mario Bros.*, he took one last side excursion. *Wrecking Crew* doesn't really count in the lineage of the core Mario games; not only does it not involve a single bit of platforming (Mario can't jump!), it's not even by the usual Mario folks. Instead, it's an R&D1 division joint rather than a project by Miyamoto's folks at EAD, with the core design coming from future *Metroid* director Yoshio Sakamoto.

By no means would this be the last R&D1 Mario title; they'd eventually go on to create the *Super*



Mario Land games. Those, of course, were so weird and un-Mario-like they eventually metamorphosed into *Wario Land*. *Wrecking Crew* has nothing whatsoever to do with those games, but it does feel decidedly un-Mario-like. In a way, this is the first real example of Miyamoto's original "Mr. Video" concept for Mario, a generic character who could fill any role as needed for the game at hand. Yes, he had appeared in *Pinball* and *Tennis* already, but those were meaningless cameos while this is a starring role... even though it totally divorces him of the mechanics and story elements players had come to associate with Mario save the tentative connection to

Donkey Kong of wielding a hammer.

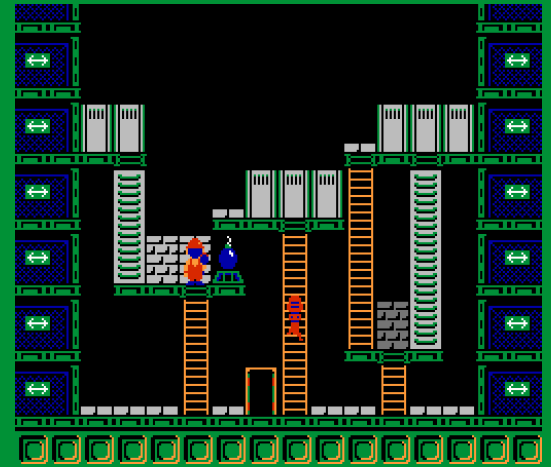
An action game only in the most technical sense, *Wrecking Crew* really falls into the puzzle game category. It operates with the single-screen style of the previous Mario games (although unlike in Mario's earlier titles, the screen scrolls to encompass more than a strict 224 pixel high play space), and enemies do chase Mario around. But they only exist to be avoided. Mario can't directly attack them, only distract and divert them.

The real purpose of *Wrecking Crew* is to destroy everything on screen besides the enemies. It's kind of neat from a tech perspective from the time, as smashing objects causes them to vanish, and you can even cause things to collapse and drop by shattering their supports. You didn't really see that level of character-background interaction on consoles in 1985, and I don't doubt the germ of inspiration for this title came from wanting to exploit that trick on a grand scale.

Wrecking Crew launched in Japan just a few months before *Super Mario Bros.*, and it really throws the latter game's achievements into high relief. This isn't to say *Wrecking Crew* is bad, but it feels very iterative, a small twist on the well-trod classic arcade concept. What makes it interesting is that despite the hazards and the score count, it's not really meant to be a challenge in the traditional sense. It features nearly 100 different stages, but you can select any stage you like right from the menu screen at the outset. *Wrecking Crew* has more of a tourist approach to game content, with no particular end in mind, just a whole lot of puzzles to be solved and a random assortment of secrets that can boost your score if you can sort out their rules (and if you care about such things).

I wouldn't quite call *Wrecking Crew* intuitive, though. Its rules seem simple enough—smash everything on screen while avoiding enemies—but some of the specifics take some getting used to. Hitting a bomb, for instance, doesn't affect monsters, but it does shatter

every contiguous object on that row while dropping Mario all the way to the bottom of the screen. The monsters have odd behaviors; eggplants, for instance, always take the first ladder they find. You can't destroy enemies but you can take them briefly out of play by hitting doors, which open into the "back" of the screen and will cause the critters to mill about in confusion out of play for a moment. And speaking of the back side, a dude named Foreman Spike—who does bear a certain similarity to R&D1's Wario, it's true—runs back and forth in the rear plane harassing Mario.



It's a weird game, this one. I like it, but it feels a little incomplete. Many of the puzzles have unwinnable states; basically, if you drop down to the ground and as a result can't reach every isolated block, you're boned and have to abort the stage. I get the sense that this is one of those instances of Nintendo's guys trying to get a handle on home game technology and design... and since the next game Sakamoto worked on would be *Metroid*, I think they learned a lot here. For Mario, though, it was less a career move and more a temp job, like an actress waiting tables until the movie featuring her big breakthrough role finally opens across theaters.

Super Mario Bros.

Year: 1985

Format: NES

Also available on: PC-88, Famicom Disk System, Super NES, GameCube, Game Boy Color, Game Boy Advance, Wii, 3DS, Wii U

Designer: Shigeru Miyamoto (with Takashi Tezuka)

You know what makes a game great? Well, lots of things can make a game great. But a really good place to start is when that game offers you an experience you've never had before yet makes the learning process totally intuitive.

Take *Super Mario Bros.*, for example. Back in 1985, it was a game like nothing before it. Shigeru Miyamoto and Takashi Tezuka set out to create their farewell to cartridge-based games—the Famicom Disk System and *The Legend of Zelda* were right on the horizon and would greatly expand the boundaries of their design possibilities—and in the process it invented a genre.

Super Mario Bros. had only the loosest connection to *Mario Bros.*, the game to which it ostensibly served as a sequel. You controlled Mario, you could run and jump, and you had to punch bricks and dodge turtles. Familiar elements like pipes and fireballs showed up in new forms, but the scope and size and objectives had grown by tremendous leaps in the two years since the original *Mario Bros.* And the “Bros.” part of the title felt almost like a lie, since the previous game’s cooperative format vanished altogether in favor of alternating play.

The feel of *Super Mario* was where it truly differed from its precursor... and from every other game that preceded it. Mario had always been at the fore of platform gaming, but he felt so terrestrial in *Donkey Kong* and *Mario Bros.* Here, he didn’t. Mario didn’t simply jump; he leapt. A single press of the jump button would send Mario flying into the air, but not in the rigid arcs of other platformers. You could control Mario’s jump, altering the direction of his movement in mid-air to a certain degree in order to tighten up a running jump or give a standing jump a hint of forward motion. The length for which you held the jump button determined

the height and length of Mario’s leap. Starting from a dead stop, jumping from a walk, and jumping from a run all resulted in different kinds of jumps.

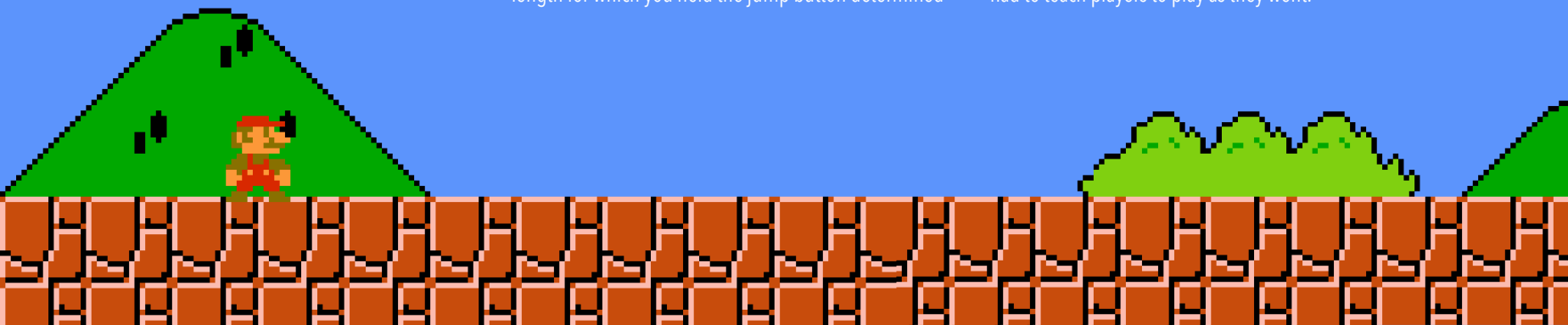
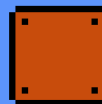
Mario’s jump felt lively. It felt dynamic. It was liberating and exciting and made *Super Mario* stand apart from other platformers. He practically flew across the screen, giving him a sense of motion that games had never properly explored before.

Miyamoto had (at Gumppei Yokoi’s insistence) reluctantly allowed Mario to survive falls from great heights in *Mario Bros.*, and it opened up the game’s design. But *Mario Bros.* still contained its action within the bounds of a single screen, so Mario (and Luigi) still observed strict limits to what they could do. With *Super Mario*, those cramped dimensions opened wide. No longer did Mario navigate a single-screen complex of platforms but rather a succession of obstacles along an expanse of ground that spanned dozens of screens in each level—and each of the 32 stages was laid out differently than the last.

Oh, right, they weren’t called “stages.” Nintendo called them “worlds.” And indeed they were. Not “boards,” not “levels”—worlds.

The scrolling run-and-jump design had precedent in several earlier games like Irem’s *Moon Patrol* and Namco’s *Pac-Land*, but it felt more like something under the player’s control here. Mario was more capable a hero than Pac-Man or the moon-patrolling buggy, with a number of skills under his belt beyond simply moving forward and running. The stages often featured multiple paths, numerous hidden secrets, a variety of obstacles, and some devious enemies.

It was a massive action game, far more complex than anything anyone had ever played. And so, it had to teach players to play as they went.



WORLD 1-1 ▲



This first stage of *Super Mario Bros.* may well be the single most analyzed and written-about stage of any video game in the medium's history. Countless critics have weighed in on it; countless games have processed and parodied it. In the face of so much history, I doubt I have the ability to add anything new to the conversation.

But, this series wouldn't be complete without this breakdown, so bear with me. I apologize if this seems like a retread of others' work. There's simply nothing to be done about it.

Super Mario Bros.'s first level had a lot riding on its shoulders. It was every player's entry into this revolutionary new take on the concept of running and jumping. Again, it wasn't exactly the first sidescrolling action game in this vein, but its predecessors were obscure and limited in scope, and its creators (Miyamoto and Tezuka) couldn't assume players would have carried over knowledge from something like *Smurf: Rescue From Gargamel's Castle* or *B.C.'s Quest for Tires* for ColecoVision, *Pitfall II* from the dying days of the Atari family, or *Pac-Land*. This game necessarily stood on its own. And so 1-1 serves as a sort of training course, with every inch of the screen demonstrating either exacting discipline or perhaps simply remarkable design instincts.

Before you even start the game, *Super Mario Bros.* begins teaching you. The title screen simply features the first screen of the game with the logo super-

imposed, and this rolls smoothly into the attract mode in which a preprogrammed Mario begins what appears to be a normal playthrough of the game.

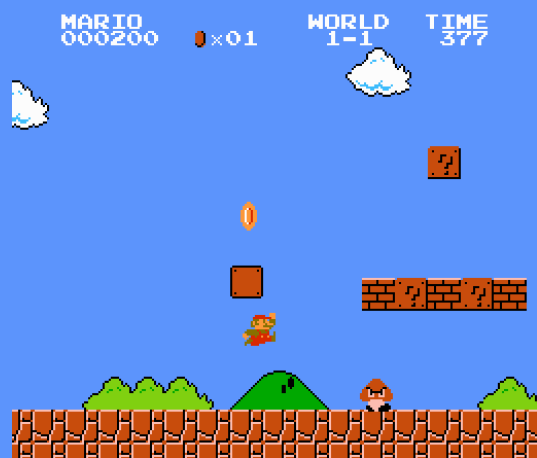
But even if you don't wait for the attract mode to kick in, the goals make themselves manifest immediately after you start. The game begins in an unusually low-stress fashion with Mario at the far left edge of the screen, facing right, with nothing else in sight. This calls back to *Donkey Kong*, which began with Mario at the bottom left of the girder course; placing his back to a proverbial wall coaxes the player to move forward.

But *Super Mario* takes a different tack than *Donkey Kong* did. The earlier game was an old-fashioned race to earn a high score within a finite amount of time, and so shortly after the first round begins Kong chucks a barrel directly at the oil drum behind Mario, causing a fireball to spill out and prod a particularly slow player forward in order to escape it. The first screen here, however, offers no dangers at all. A timer ticks down in the upper right corner, sure, but the clock for the first stage allows far more time than you could reasonably use up as you play through World 1-1. Instead, you're given a wide-open space in which to play around with Mario's capabilities. To get a feel for how he runs, jumps, stops. This concept would be expanded on more elaborately in *Super Mario 64* with the courtyard outside the castle, but this one screen serves the same purpose while still encouraging you not to dawdle overlong... because, after all, this is an arcade-style action game, you know?

Once you move to the right far enough, you'll cause the screen to scroll forward. At this point, you may try to backtrack, at which point you'll discover the scrolling is "ratchet" style—it moves forward at the player's discretion, but it won't double back. This is a more expansive game than *Mario Bros.* by far, but it's still limited. You still have a singular focus: Get to the other end of the stage before time runs out. The one-way progression allows for some tough choices and nasty tricks along the way as well. But for now, it simply keeps you on track.

Once you begin scrolling the screen ahead, you find your first few details in the world: Some floating bricks, and a small mushroom-like enemy that walks slowly toward you. Mixed in with the bricks are a number of blocks featuring flashing question marks. A *Mario Bros.* player should be drawn, instinctively, to act here: Punch the Question Blocks, just like they did the POW Block in the previous game. But for the newcomer, the enemy—a Goomba—provides a clue, and incentive. It's timed to catch up to Mario right around the time the player should have guided Mario to a point right beneath the first Question Block. Like the fireball in *Donkey Kong* and Hadoukens in *Street Fighter*, the Goomba becomes a catalyst forcing the player to react. If you don't jump the Goomba, Mario will die.

Chances are that for the first-time player, Mario will die anyway. If you don't time the jump right, or if you smack Mario's head against the Question Block and kill the arc of his jump, the Goomba will walk right into him. But hey, lesson learned either way, right? Punch the Question Block and a coin pops out; smooch the Goomba by jumping on top of it and a point tally floats up. In both cases, you're given an indication of a reward—though unlike the Goomba, the coin increments both your score and a separate coin counter, with a cash register chime to indicate some sort of greater value than mere points.



With the Goomba dead or avoided and the “hit me” essentiality of Question Blocks confirmed, the player moves on to the second portion of the block formation. The bricks do nothing but bounce when struck, but the leftmost Question Block—the first you’ll hit—yields a new prize, a Mushroom. It slides to the right along the bricks, drops to the ground, rebounds off the pipe, and slides to the left along the ground.

You can snag the mushroom at any time before it slides off the screen, but you can also screw it up. If you get overly zealous and immediately hit the lower-right Question Block, there’s a pretty good chance the upward motion of the reacting Question Block will glancingly strike the mushroom and send it bounding immediately to the left. This placement is surely not accidental; you can survive the loss of a mushroom here, so bouncing it away offers another of those Super Mario hard life lessons.

Whether or not you manage to snag the mushroom, this block formation also clues you into the fact that despite *Super Mario*’s emphasis on horizontal movement through the stage it still retains some elements of *Mario Bros.*: To hit that upper block, you have to use the lower blocks as a platform. (Hence the genre’s name.)

If you do grab the mushroom, Mario will shift into his super form. This makes him taller, but he doesn’t

run any faster. However, you may happen to discover that punching bricks now will cause them to shatter (and, according to the instruction manual, you are murdering an innocent citizen of the Mushroom Kingdom in doing so) rather than simply bouncing upward. You can also now take one hit before dying (suffering damage will cause Mario to revert to his smaller, weaker self), which you may have the occasion to learn firsthand as you move beyond the pipe into a sequence where multiple Goombas patrol between several pipes.

The first pipe is there to make you realize that jumping isn’t simply defensive; it’s essential for progress. The subsequent pipes just make things trickier to navigate and force you to pay attention to how the Goombas interact with the scenery and one another. Instead of simply passing through one another when they collide, Goombas treat one another as physically present. You can spot this with the two Goombas trapped between two pipes, walking side by side: The first will bump into the pipe, reverse course, immediately hit the Goomba next to it, reverse course again as the other Goomba changes direction, bump into the pipe one last time, and finally stomp along beside the other Goomba. It’s a small detail that happens at the single-pixel scale, but it’s an important one which demonstrates the way enemies adjust their behavior in response not only to the level design but also to one another. These comparatively complex behaviors play a huge part in later levels.

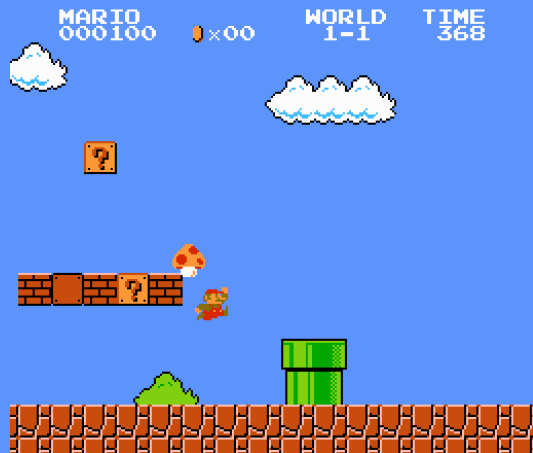
At the end of the string of pipes, World 1-1 contains not one but two secrets, both of which are very nearly mutually exclusive. The more devious of these surprises is the invisible block five spaces from the first pit. There’s no indication of this block’s presence, but if you happen to hit it, your prize will be a 1UP mushroom that extends your stock of Mario lives—the most valuable commodity in the game (100 times as valuable as a coin!). Like the normal mushroom, the 1UP variant slides forward... potentially dropping into the pit if you’re not fast enough to grab it.

Invisible blocks hold the key to many of the game’s most devious secrets, and they very much

became a part of the game’s fan culture. They offered a chance for communal knowledge, wisdom passed from one player to another as a sort of induction into the inner circle of Mario literati. Of course, your first time playing the game blind, you’d never know to look for it there; instead, all you’d see is a pit, the first of the game’s deadly passive hazards.

Again, Miyamoto had supposedly been reluctant to allow Mario to survive falls from unrealistic heights, but he went ahead and added that feature to *Mario Bros.* anyway. The change had a liberating effect on the gameplay, so it’s hardly a surprise it was retained for *Super Mario*. But here we find the natural balance for Mario’s capabilities: Falling into a pit proves instantly deadly. Yes, Mario can jump from anywhere on the screen and land safely, but if you miss the ground, well, it’s just as fatal as if he had leapt two stories in the *Donkey Kong* days.

So, a few screens into World 1-1, *Super Mario* has already taught players about scrolling, jumping, platforming, the danger of enemies, the objects hidden in Question Blocks, powering up, collecting coins, invisible blocks, fatal pits, and more. And this is just the first 15 seconds of the game, and only a fraction of World 1-1. That is some information-dense design right there. And yet it feels so light and airy with that bright blue sky....

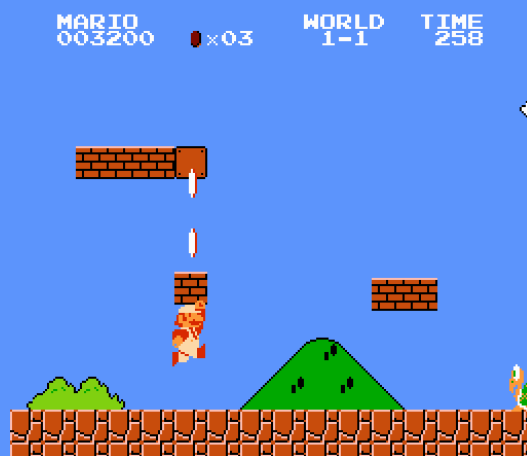


Something that truly impresses me about World 1-1 of *Super Mario Bros.* is that it gives you a taste of just about everything Mario can do. Short of swimming and climbing vines, his entire repertoire is contained here. And yet, the game doesn't feel like it's tipped its hand once you get to the flagpole at the end; you've experienced Mario's capabilities in a fairly safe environment, and from here everything ramps up steadily until you reach the devastatingly difficult World 8.

First up: After leaping the first pit, Mario comes to another Question Block which contains another standard mushroom... unless you've managed to clear the opening hazards without bumping into anything dangerous, in which case the mushroom is upgraded to a Fire Flower. This gives him the ability to fling an unlimited number of fireballs, which bounce along the ground and obey gravity in a convincing manner. If they bounce off the edge of a platform, they'll arc downward until they come into contact with another horizontal surface, at which point they'll continue bouncing along. If they hit an enemy, they'll fry the foe; if they strike a vertical surface, they'll dissipate.

The Fire Flower completely changes the nature of the game from one of avoidance and precision offensive jumps to a full-on onslaught against enemy forces. Mario doesn't exactly become invulnerable with the Fire Flower, but you can't help but play more confidently when you have the ability to fry anything (or almost anything) in your path.

At the same time, you'll quickly experience some of the nuances of the fireball here. One of the first enemies you encounter after powering up with the Fire Flower is a Koopa Troopa (a clear descendent of Mario Bros.'s Shellcreepers). A fireball will instantly toast the turtle. Now, if you didn't collect the Fire Flower, this works differently, as jumping on a Koopa Troopa doesn't defeat it but rather causes it to retreat into its shell. You can then kick the shell and it'll slide along the ground, wiping out anything in its path—including Mario, should the shell rebound from a pipe or wall. Shells invoke a strong risk/reward system, since consecutive enemies defeated with a kicked shell offer double the points of

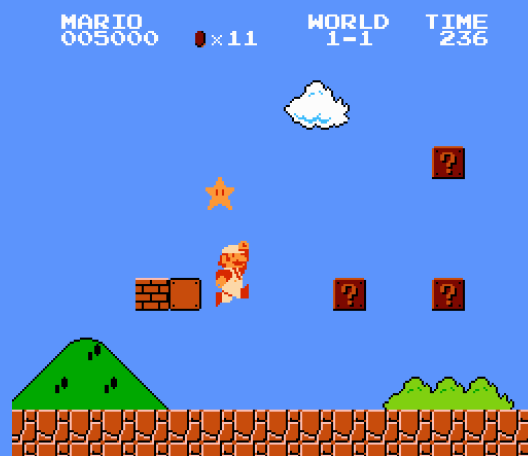


the previous foe, eventually culminating in a precious 1UP. But shells slide quickly, so you have to follow close behind, heedless of danger... including the possible danger of running into it on a rebound.

The Fire Flower, however, completely circumvents the natural state of Koopa Troopas for better and for worse. You miss out on the danger of having a high-speed moving shell in play if you fry it with fire, but you also lose out on the potential perks as well.

As a nice touch, the second mushroom block is situated beneath a higher platform from which a pair of Goombas will drop. When they land on the Question Block and the bricks flanking it, Mario can call back to his previous adventure and punch the platform beneath the Goombas to defeat them. Even if you haven't played Mario Bros., though, this course of action is made intuitive by the fact that the Goombas drop onto a Question Block which begs to be punched. It's a stealth tutorial: Rather than giving you tip text to say, "Punch a block beneath an enemy to defeat it!" the game simply gives you a situation designed for the explicit purpose of revealing this mechanic by enticing you to try it for yourself.

Beyond this, there's a whole string of blocks containing rewards. The first of them doesn't appear to contain anything; by all indications, it's just a standard brick. If you hit it, though, a coin will pop out. But the brick won't change to the "depleted Question Block" state right away, nor will it break, encouraging you to



hit it again to reveal more coins. And chances are good that a player will want to hit the block, just because it's standing conspicuously on its own and the act of hitting and breaking bricks feels so satisfying: You're making a permanent (albeit fleeting) change to the world, destroying something with a simple action. And when you do hit it, you discover that some standard bricks secretly contain rewards, and that some rewards consist of multiple items.

Even if you skip over the secret multi-coin block, you'll definitely come across the next item: The Starman power-up. Stashed in a Question Block shortly before a pyramidal arrangement of four more Question Blocks, the Starman pops out and immediately begins bounding along with tall leaps, beckoning you to chase and grab it. Here, you have enough of a run-up time to snag it before you reach the enemies approaching from the right side of the screen—they'll times to catch up with you right about the time you're likely to snag the Starman, in fact.

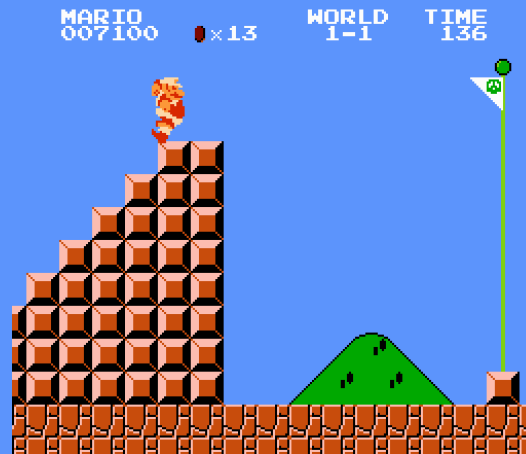
If you know what the Starman does (it makes Mario invincible), you can barrel on through the Goombas and dash toward the end of the stage. But if you don't, and the uptempo music and vivid flashing effect that comes across Mario don't tip you off, this section is also designed to clue you in. A normal jump to stomp the Goombas will cause Mario to react differently than usual, for one: Instead of bouncing off the Goomba as it



squashes flat, he'll pass right through it while sending it flying off the screen. However, there's a fair chance that you'll blow your jump anyway as you try to stomp on the Goombas passing below the low Question Blocks; if you hit your head or get snagged on the blocks, you'll hit the enemies at an awkward angle... but they'll die anyway rather than shrinking or killing Mario.

The invincibility star forces a choice on Mario: Go for broke and try to wipe out as many bad guys as possible before it runs out, or fuss with the pyramid of blocks? If you goofed and missed out on the Fire Flower, the topmost Question Block contains a third mushroom, which again becomes a Fire Flower for Super Mario. Working through this aerial grid of blocks takes some finesse and is likely to slow you down so that the effect of the Starman wears off before you reach the next knot of enemies. Despite its linearity, *Super Mario Bros.* forces many decisions of this kind on players to prevent the game from feeling too limited and keeping each subsequent playthrough lively.

As you reach the final stretch, *Super Mario* throws a new obstacle at you: Stairs. There are three sets in total; the first is a low set of back-to-back stairs with safe ground in between. The second is nearly identical, but the leftmost set of blocks extends slightly further, and the ground in between yawns as a fatal chasm. The first ramp lets you figure out how to deal with it safely,



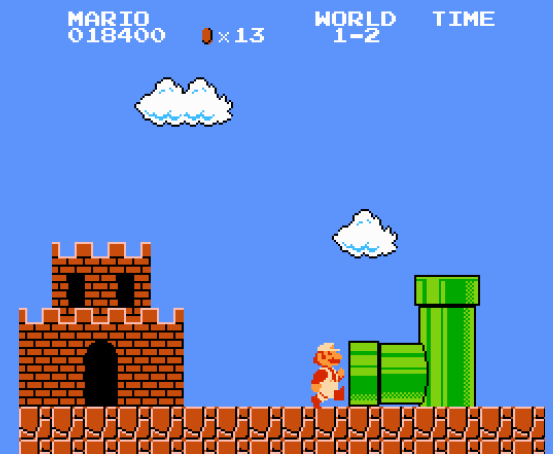
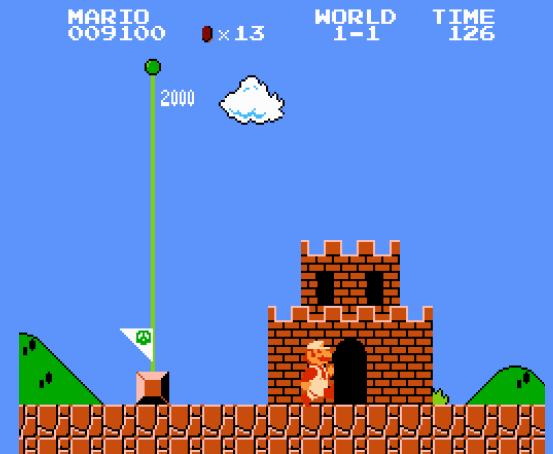
while the second removes the training wheels and immediately forces you to surmount the change in scenery without clumsily falling into the hole.

These also serve to prepare you for the tall staircase at the end of the stage (and most stages in the game as well). There's no danger with the final stair mount, but getting a handle on Mario's behavior while climbing—it's easy to lose momentum on these tiny footholds by coming into contact with a vertical surface—is an essential part of earning maximum points on the flagpole at the end.

Mario ends the stage by claiming the flagpole, running the Koopa pennant down in exchange for points. Now, you can grab on to any part of the flagpole to end the stage, but the higher you touch it the more points you'll receive. This isn't essential, of course, but who doesn't like more points? By taking a running jump with ample momentum, you can hit the top for max scores.

Of course, this causes everyone to wonder, "Can I jump over the flagpole?" Not in this game... well, not unless you cheat.

Slide down the flagpole and the level is done. Mario marches to the little fortress beyond the flag, and: Scene. Mysteriously, sometimes the Mushroom Kingdom celebrates this small victory with fireworks. How intriguing!



The funny thing about *Super Mario Bros.*: After conquering World 1-1—which really only takes a few minutes of your time—Mario marches past the flag pole to the fortress stationed at the end of the World. And then, once World 1-2 begins... he keeps right on marching.

Instead of fighting through the fortress as you might expect, he heads to the big green pipe a few meters beyond. Unlike the pipes in *Mario Bros.*, which only only existed to disgorge enemies into the sewers, the larger pipes here are of sufficient size to accept Mario as well. This particular pipe deposits him in the underground.

OK, that's all well and good, but when you see Mario duck into the pipe under computer control, it's natural to begin to wonder: Can Mario duck into all pipes? And the answer, it turns out, is... not quite. Many pipes do nothing. But some of them hide secret paths. Including a certain pipe in World 1-1.

Like the 1UP mushroom near the start of the game, you're not really meant to know about this pipe the first time you play, or maybe even the fifth time. But as you experiment more and more with the game in subsequent replays, becoming more confident in your skills and curious about what you can accomplish beyond making a straight dash for the finale, you'll eventually begin uncovering various hidden secrets. And, as with so many elements of *Super Mario Bros.*, the first is hidden very near the beginning of the game—di-

rectly before that 1UP mushroom, in fact.

Beyond the rebounding Goombas you'll find a pipe that Mario can duck into if you stand on top of it and press down.

This leads to a secret chamber crammed with coins. Nothing here can hurt you, and the pipe at the lower right whisks you away to the very end of the stage, placing you directly in front of the final staircase before the flagpole. It's both a bonus and a shortcut.

At the same time, this coin room bypasses many of the benefits of World 1-1 as well. If you jiggle the screen just so, you can snag the 1UP mushroom and backtrack to the secret pipe before it scrolls irretrievably off-screen. But you'll miss out on the Fire Flowers, the Starman, and all the points for freeform bad guy slaughter. On the other hand, the coin room contains 19 coins, and optimal play along the normal path will net you 18 coins at best (and that's only if you manage to squeeze every last coin out of the multi-coin block). And the time you save with the shortcut is converted into points once you tag the flagpole.

So it's another tradeoff: Enjoy more play time and power-ups along the standard path, or save time and move one step closer to a 1UP (which is of course the point of gathering coins) by using the pipe? Both choices are equally valid; the question comes down to what you want from *Super Mario Bros.*

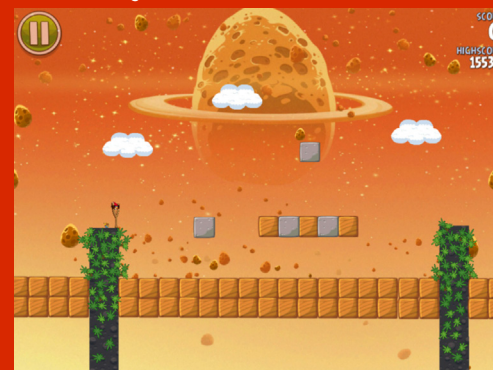
And all of that just in the first stage. Of 32!



World 1-1 may actually be the single most mimicked, imitated, referenced, and otherwise repeated video game level in history. Given its role as the introductory stage of one of the most important games ever made, that shouldn't be too terribly surprising. Like King Kong swatting planes atop the Empire State Building or the opening bars of "Toccato and Fugue in D Minor," *Super Mario Bros.* World 1-1 has become a touchstone for both the medium and pop culture at large.



In some instances, e.g. *Great Giana Sisters*, it crosses a line into something more akin to theft. Generally, though, nods to World 1-1 stay on the right side of the law—loving acknowledgements of *Super Mario Bros.*'s place in video game canon. *Angry Birds Space*, for example, based the layout of an entire stage around 1-1...



...which was probably meant as a nod to *Mario* creator Shigeru Miyamoto, who has expressed admiration for *Angry Birds*. It's all one big lovefest.

Once Mario automatically descends the pipe beyond the first fortress, World 1-2 begins in earnest. It brings about a significant change in setting: Mario goes underground, leaving behind the blue skies and calliope music of World 1-1 in favor of gloom. In fact, the blue-tinted Goombas who live down here have retroactively been renamed “Gloombas,” because Nintendo just can’t leave well enough alone when there’s the possibility of a pun happening.

But the simple change in color palettes—blue sky becoming black shadow, warm brown brick becoming cool blue-grey—and the shift in music to something more muted and repetitive does the trick. It also calls to mind the tricks the same developers would use a few months later to distinguish *The Legend of Zelda*’s dungeons from its overworld. (A connection that would be played with a few times over the years, particularly in *Link’s Awakening* and *Super Mario 3D Land*).

World 1-2 adds a couple of new elements to the Mario sandbox, and it also gives players a chance to experiment with some advanced techniques, should it strike their fancy (or even occur to them to try).

The stage begins simply enough: Mario drops from the pipe above into a cavern, or possibly a sewer of some sort (another of the game’s very vague, very vestigial connections to *Mario Bros.*). Right away you’ll see a row of Question Blocks—the only objects in this stage not to undergo a darker palette shift, besides Mario—the

first of which contains a power-up. Two Gloombas walk side-by-side beneath the blocks.

It seems a simple enough situation, but it’s subtly complex—another one of those situations that requires a quick, instinctive response and a proper understanding of the game’s inner workings. If you’ve carried over a Fire Flower from World 1-1, this is easy enough to deal with: You pepper the Gloombas with fire, end of story. But if you skipped the Fire Flower, this situation can be more dangerous than a newcomer to the game would expect. The low placement of the blocks above the Gloombas will cause Super (or Fiery) Mario to bump his head when he attempts to vault the enemies, cutting his jump short and sending him quickly downward. Super Mario has only a few pixels’ clearance over the Goombas, requiring a very precise jump.

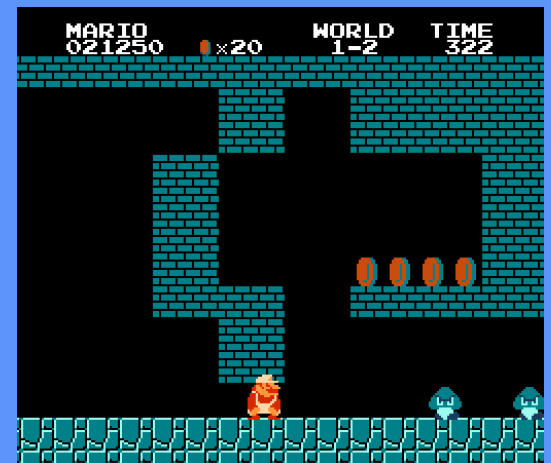
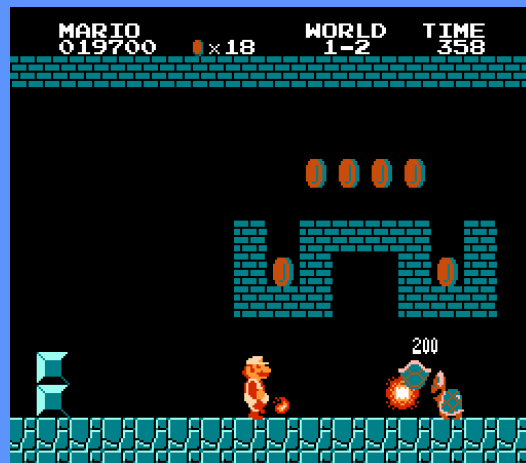
It can be tricky to get the jump just right, but this situation is also much less stressful if you’re forced to restart the level without a power-up. Standard Mario, being shorter, can jump higher before bumping the blocks, making it much easier to stomp the enemies in his weakened state. There are a couple of situations in this stage in which small Mario has a small advantage over Super Mario.

Of course, you don’t have to jump them beneath the blocks. You can also wait for them to emerge from beneath the row of Question Blocks and jump them at your leisure, or you can skip them altogether

by hopping on the blocks and running past—though this does run the risk of scrolling the power-up block off-screen. And clearly the level designers meant for you to try and squash them right away, as the Gloombas walk directly together rather than a small space apart: If you squash the first one as Super Mario, your rebound bounce will cause you to immediately hit the blocks above and drop sharply onto the second. Elsewhere in the game, you’ll usually see Goombas walking slightly apart so that Mario’s reflex will create natural attack combos. But here, in this constrained space, such a gap would cause the second Gloomba to bump into you on the ground once you bump your head on the blocks.

Beyond here you’ll find a series of one-block-wide columns separated by small gaps. Traversing such narrow obstacles requires considerable finesse, and it’s a skill you’ll need later. Here, you have a chance to practice with it in a fairly safe setting; aside from a single Gloomba patrolling between two of the columns, this is a harmless set of obstacles that allows you to come to terms with the fine precision of Mario’s jumps.

And if you fall and have to deal with the Gloomba, there’s even a reward: A brick that turns out to contain a multi-coin block. Because it’s set slightly higher, you can only squeeze 10 coins out of it rather than the 12 of the one in World 1-1; multi-coin blocks disgorge their goods for a fixed amount of time rather than by a set number of coins, so the more times you



can hit a block while it's "live" the more coins you'll score. The higher you have to jump the more of that time is wasted in the air. Later in World 1-2, you can find a multi-coin brick set a block lower than the one in World 1-1, from which you can obviously coax more rewards.

The subsequent Koopa Troopa pair gives you a chance to experiment with their unusual physics: Stomp the first one and kick it and you can wipe out a bunch of enemies in a row and rack up bonus points. Of course, this means you'll need to pass up a number of prizes along the way, including a Starman hidden in the upper-right brick of the block formation the turtles walk beneath. This arrangement of these bricks teases you with a quartet of coins along the top edge, too high for Mario to reach by jumping thanks to the high brick columns flanking the formation. Tiny Mario can claim the two lower coins by hitting the brick beneath each one, but Super Mario can break the vertical brick formations to use the block beneath the lower coins as a platform to the top level. The destructibility of stage elements is a major feature of this particular World, and this is your first opportunity to experiment with it.

If you do kick and chase the Koopa shell, you may find yourself stymied by this low passage. Regular Mario can dash right through it, as he's short enough to clear the low-hanging bricks. But Super Mario can't. However, Super Mario can make his own passage by smashing the bricks to the left and climbing over the

lower portion. This doesn't do you much good if you're chasing the shell, though; by the time you clear the bricks, it'll be long gone, and those bonus points will evaporate.

But Mario has an advanced technique that he can use here. My guess is that it wasn't a move built into the game deliberately but rather one that evolved from a combination of other play mechanics that the designers decided to capitalize on in non-essential ways. Mario can duck, and he experiences inertia when he moves. Duck while running, and he slides briefly. This happens to a smaller degree when he walks, but his walking inertia barely propels him forward. When running, though, he'll slide forward a block or more. Time it right while chasing the shell and he can slide right below these bricks. And if you get stuck, the game automatically pushes Mario toward the nearest opening... though you can speed things along by smashing the bricks with a jump. Even though he doesn't punch the bricks while squatting, Super Mario can shatter them all the same.

Further ahead, a pair of Gloombas drops from a platform to the ground. This serves as a subtle clue to jump up on the platform yourself and discover one of the game's more interesting secrets, another element that seemingly evolved from the nature of the stage design.

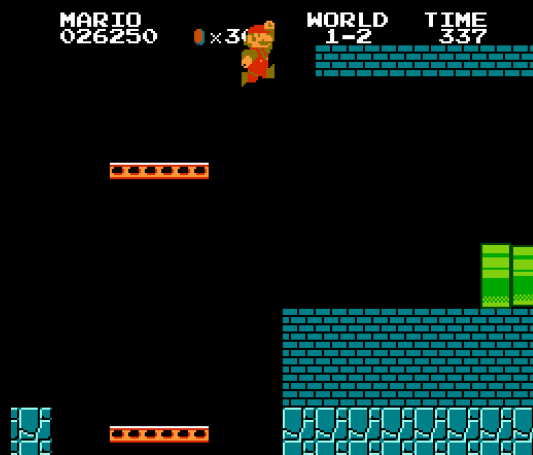
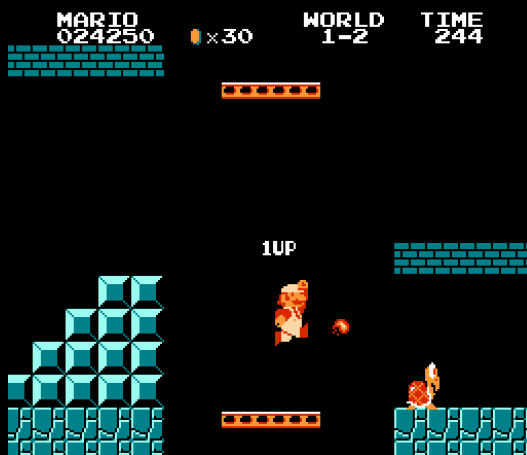
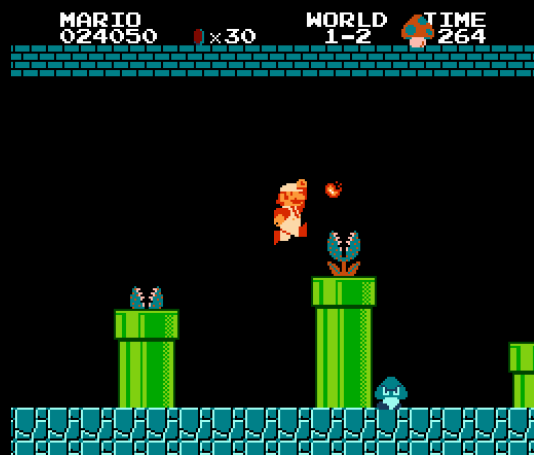
Almost every block in World 1-2 is composed of brick. And Super Mario can shatter brick, as we've

been reminded several times by this level's little layout tricks. Eventually, you may begin to wonder: Can you break the bricks that define the level's boundaries? And the answer, happily, is "yes."

Around 1-2's midpoint, you'll encounter a few spots where Mario can shatter the ceiling of the stage. You can even leap onto the ceiling if you want, completely bypassing all the goodies (and dangers) below. But there's a much better prize if you experiment a bit: Another 1UP mushroom that pops out of a certain block of the ceiling and slides along the upper edge of the stage. If you have sufficient mastery of Mario's jump, you can create a hole for the mushroom to drop through; otherwise, you'll need to chase it across the stage until it drops in a naturally occurring opening.

Whether or not you nab the 1UP mushroom, the game introduces a new danger soon after: Those familiar, friendly pipes suddenly take a turn for the nasty as deadly plants begin emerging from them. You can't stomp a Piranha Plant, only fry it or wait for it to descend after a few seconds. They're less insurmountable than you might think at first glance, though; if you stand on the pipe or on the block adjacent to it on either side, the plants won't emerge.

In case you haven't cottoned to the fact that you can drop down certain pipes, the plants allude to that: You can descend the first pipe to find a secret room full of coins. And unlike the World 1-1 coin room, this



WORLD 1-2 ▼

doesn't serve as a shortcut; you actually ascend back to the main stage from the third pipe, a screen away from the entry pipe.

Beyond the pipes, World 1-2 introduces its second new element: Elevators. The first set of elevators descend constantly, and eventually they'll drop off the bottom of the screen. Mario needs to be off the elevator before it reaches this point or else he drops off the screen with it, man down. The stage designers considerably provide a staircase leading up to the elevator so you'll have plenty of time to leap to safe ground; you can even do a quick run-up and jump across to the opposite platform. Though you need to take care, as a Red Koopa Troopa (which is smart enough to turn around at the edge of a platform rather than drop down) patrols the lower path and is likely to smack into you if you jump carelessly.

The second set of elevators rises, eventually ascending off the screen. This is less dangerous than the descending elevators, since Mario will simply drop to the next platform if he's carried off the top edge. It's a simple matter from here to jump over to the end pipe and take it up to the staircase and flagpole that mark the end of World 1-2.

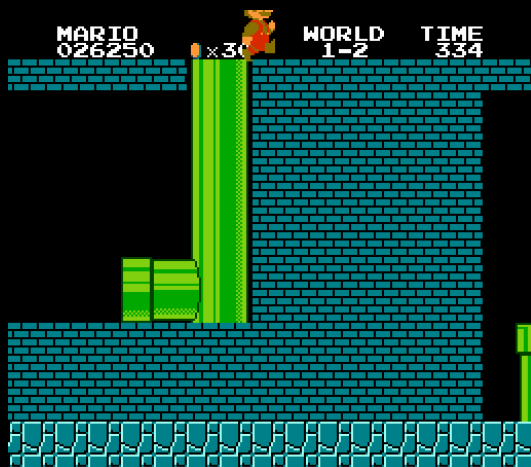
But, you might also wonder, can Mario ride the elevator up and run along the ceiling? What would happen if you tried to skip past the end of the level? Would you be stuck forever?

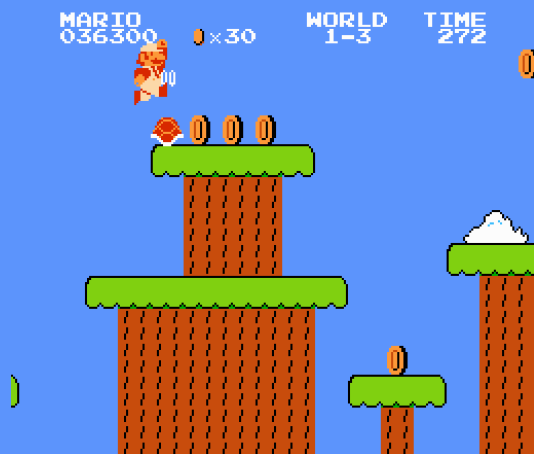
Yes, of course you can run along the ceiling. You should have realized that earlier when the game gave you the chance to break out of its boundaries! And of course the creators of *Super Mario Bros.* wouldn't be so cruel as to give you an unwinnable situation (glitches don't count) by stranding you here to let the clock run out. If you run past the pipe, you'll find... a secret room.

A room full of more pipes! Rather than taking you to the end of World 1-2, however, these pipes send you far beyond. They're shortcuts to the worlds denoted above the different pipe: World 2-1, 3-1, or 4-1.

Obviously, you're not meant (or expected) to find these right away. They're tucked away in a hidden but not impossible spot for those with a fair amount of Super Mario experience to find by poking at the edges of the game and seeing what's possible beyond "oh god oh god I hope this turtle doesn't kill me aaaaaagh." Because *Super Mario Bros.* lacks an obvious continue function or a save system, the Warp Zone gives you a way to jump ahead to where you were as you make progress further into the game—a time-saver for experienced players struggling with the latter stages. And one hidden in a simple fashion that curious players will eventually intuit on their own.

Can you break the boundaries of the world? Yes. And for trying to out-think the creators, you're amply rewarded.





Super Mario Bros.'s first couple of stages ease players into the rules of the game's world: Walking, jumping, stomping, fireballs, secrets. With World 1-3, however, the game properly becomes a platformer. At this point, you're expected to have a handle on the basics so you can contend with the more complex demands ahead.

World 1-3 takes place across a vast chasm dotted by a series of... trees? Mushrooms? Cliffs? I don't honestly know. It doesn't really matter. The important thing is that the only solid ground in World 1-3 appears at the very beginning and very end of the stage. In between, it's all just a series of slippery platforms. Fall off an edge and Mario plummets to his death.

Looking back after 25-odd years of games inspired by *Super Mario*, I think it's worth noting that the green platforms here are solid from both above and below. You can't pass through them by leaping; instead, you have to jump cleanly around them. The brown "walls" are strictly window dressing; they serve no purpose in the game except to convey the idea that you're not traveling across platforms floating in empty space. They actually do provide a sort of comforting presence, though, inane as that may sound—it's strictly psychological, but I contend that the brown walls/trunks/stems/whatever create a reassuring sensation that you're not in



quite as perilous as a situation as you might be. They're wallpaper training wheels.

But World 1-3 really is hazardous. Platforms appear at variable heights and at different distances from one another, forcing players to make bold leaps in order to progress. Coins exist not only as a power-up—and if you've been gathering them dutifully, you'll finally discover here that 100 coins nets you an extra life—but also as a ruse to entice you to perform dangerous actions. Is it really worth the risk of dropping down in the narrow space between two platforms to a tiny ledge with a single coin on it? Probably not, but that jingling sound they make when you collect them just can't be denied. It's pavlovian, baby.

The moving platforms that served as one-way elevators reappear here, but in a different capacity. Instead of simply descending or ascending all the way off the screen, looping infinitely, they move back and forth either horizontally or vertically within a fixed space. They can take you up to higher areas or across to otherwise unreachable spaces. And unlike the green platforms, these aren't solid ground; you can leap from beneath them to land on their upper edge. They're more forgiving due to their more dangerous nature.

The most important thing to understand in



World 1-3 is the importance of running. You can clear the first two worlds without ever pressing the B button, but forget about advancing past World 1-3 if you don't run. In several places, you must target platforms too high and too far across a gap to jump by simply walking forward; you need the added momentum and height provided by a short run-up.

And if you're feeling really fancy, you can experiment with the advanced technique of stomping aerial enemies. Hopping on a bad guy causes Mario to bounce, of course, so it stands to reason that would work even in mid-air. And indeed, hopping on a Koopa Paratroopa can propel Mario to a higher ledge, though of course you need to watch your timing. (There are some weird physics quirks in *Super Mario* that allow bizarre exploitation, like the fact that colliding with an enemy while in a downward motion registers a stomp even if the enemy hits you from above, but those are outside the scope of a piece on deliberate design lessons).

Make no mistake, World 1-3 still has its training wheels on. The most complex maneuver you need to pull off in order to clear the stage is jumping from one moving platform to the other. But these move gently up and down next to one another, alternating with the other and meeting at the midpoint of their arc.

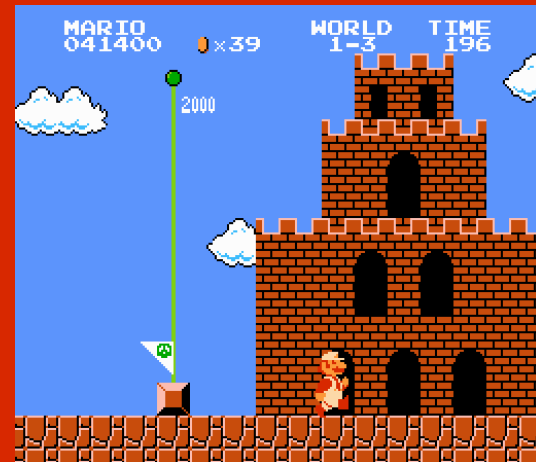


It's child's play to jump from the left one at the apex of its track to the right one, which will be at its nadir at the same time. But it's an essential trick to master for later in the game, when things become far more stressful.

The color-coded enemies demand attention, too. The only Koopas and Paratroopas in this stage are red ones, which stick to a fixed range. Red Koopas never walk off edges, patrolling only their designated platform, while Red Paratroopas hover up and down along a vertical line. You can pop them with fireballs to make short work of them, or you can experiment with kicking them from uneven terrain.

At any rate, the level itself proves to be exceptionally brief. Not only is it shorter than Worlds 1-1 and 1-2, it also lacks their nuances. There are no hidden secrets here, no pipes or invisible blocks. In fact, there's only one block in total, which disgorges a mushroom or Fire Flower as needed. The focus here is entirely on aerial maneuvers and high-altitude platforming, with no distractions beyond the shiny, shiny coins.

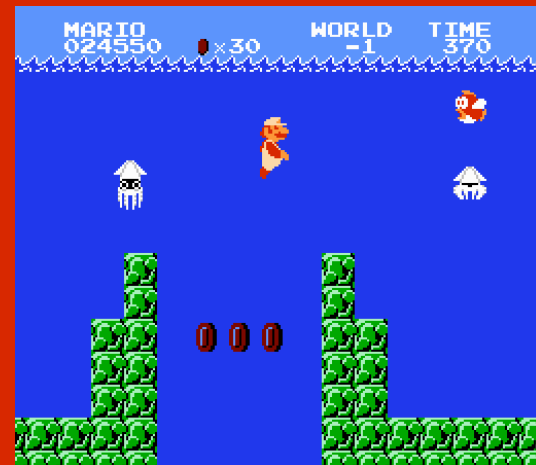
At the end of the stage—which is preceded by a very different sort of staircase than those of 1-1 and 1-2—Mario enters a proper castle, not just the tiny fortresses of the previous worlds. This will prove to be a meaningful distinction.

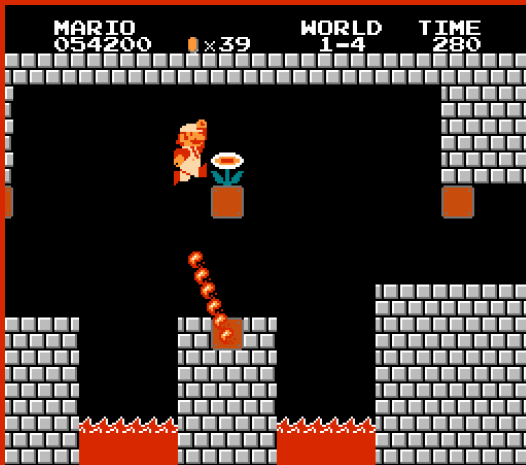


World 1-2 gives you more than one way to complete the stage; the warp zone exists to reward clever players. But there's a third outlet from the stage: The infamous Minus World.

Unlike the warp zone, Nintendo didn't deliberately add the Minus World to the game. In fact, it's not a legitimate level at all, and the name "Minus World" is simply an informal moniker that fans gave the stage due to the numeration of the level at the top of the screen (instead of saying "World 1-1" or the like, the first numeral is blank, so it reads "World -1").

You can access the Minus World by glitching into a particular brick right at the end of World 1-2, which will cause you slide through the wall to the warp zone pipes. How this was discovered in the first place is a grand mystery for the ages—whoever would have said, "Yes, I should break this one particular brick and jump at the perfect height to make Mario clip into the wall"—but somehow the process of sliding through the wall to the warp zone affects the way the game registers the pipe to World 3-1. Instead of causing Mario to skip ahead six stages, the first pipe instead drops him in a world that doesn't technically exist. It's an underwater stage, and while it can be completed, taking the pipe at the end simply sends you back to the beginning of World -1 over and over again. The Minus World is like some sort of grim purgatory... punishment for breaking the rules of the game world, perhaps.

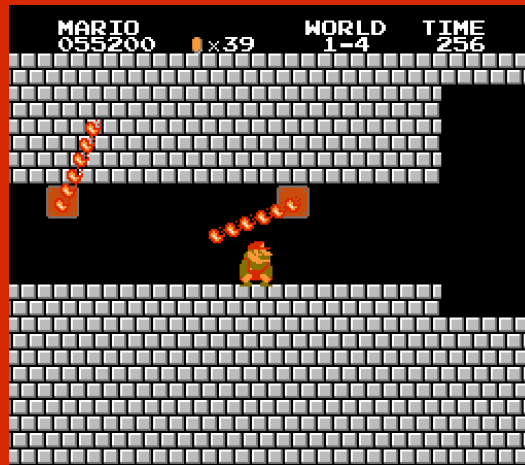




Do you get the impression that *Super Mario Bros.*'s levels are somehow getting smaller? Ah, well, that's because they are. World 1-4 is the briefest level yet, clocking in at a couple of screens shorter than 1-3, which in turn was shorter than the stages that preceded it as well. But it makes sense: This is the culmination of the game, the final showdown. After three varied obstacle courses, this stage represents an even purer and more straightforward set of challenges than ever before, focused primarily on building up to the conclusive battle with Bowser.

World 1-4 lacks any enemies save the big guy at the end. It's simply a showdown with the boss, the Koopa King himself. Don't mistake the path to the end as a gentle cakewalk, though. Despite really only incorporating three threats (plus Bowser), World 1-4 can be downright nasty if you don't have a handle on the game's controls yet.

The first of the level's hazards is a pair of pits—nothing new, though these are filled with lava. Empty pit or magma pit, they're fatal just the same if you fall in. The lava wallpaper here simply helps set the mood, along with the inky blackness of the background and the tense, intense music. This feels like something big and deadly. You're in the enemy's lair... though actually it's Princess Toadstool's castle, right? Either Bowser did some major renovations upon his conquest of the Mushroom Kingdom or else the gentle princess has some grim taste in interior decorations.



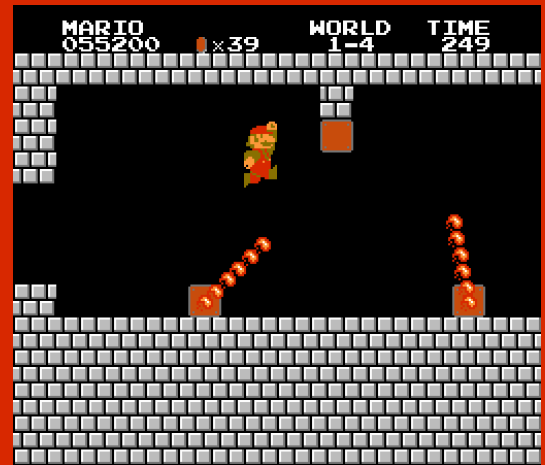
The second hazard presents itself for the first time right between those lava pits: The fire bar.

Fire bars are a simple but dangerous threat. Consisting of six (sometimes more) linked balls of fire, they turn Mario's best weapon against him. They revolve around a central fireball that serves as a fulcrum, anchored into a null block. Fire bars can rotate either clockwise or counter-clockwise, and they're just barely slow enough in their movements for Mario to squeak past if he hustles. Thankfully, they don't register as a solid obstacle, so if you let yourself collide with one you can run through it as you shrink. Provided you're Super Mario to begin with, of course.

Your introduction to fire bars forces you to make a tough decision right from the start. That first bar swings on a pivot on a narrow isthmus of brick in a sea of lava, directly beneath a Question Block containing the sole power-up in the stage. It's entirely possible to dodge the fire bar, hit the block, and collect the power-up inside—but it takes skill and careful maneuvering. Alternately, you can very easily bypass the fire bar altogether by using the Question Block as a platform to carry you over the hazard, but in doing so you also pass up the power-up inside.

The further we venture into this game, the more perilous acquiring power-ups will become. This is your first real taste of that philosophy, and it introduces a new hazard in the process.

Past the pits you need only worry about the

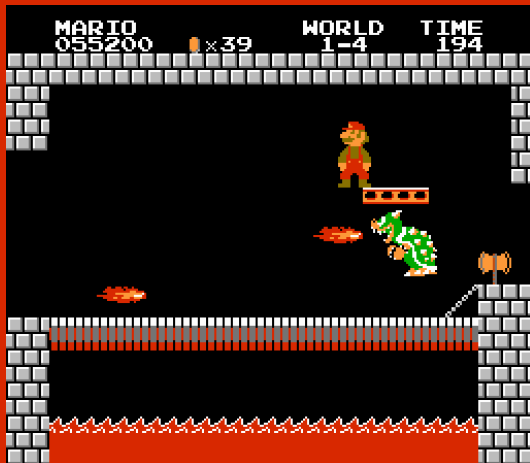


fire bars; no tricky platforming necessary. There are five more fire bars in total, becoming progressively more dangerous as you go. The first two block a narrow corridor by swinging from pivot points in the ceiling. You can simply dash past them with good timing—though you don't want to get too overzealous clearing the first one, as the second is timed so that your momentum will carry you into it if you're careless in scurrying past the first.

After that, you have to make a mighty leap over a fire bar set into the floor. And, finally, the big challenge: A pair of matched fire bars, one in the ceiling and one in the floor but both in close proximity, designed to rotate in such a way as to make for a very difficult jump during their orbits.

Once you've made it past that threat, you're more or less in the home stretch. The final hazard for 1-4—gouts of flame—begin to appear from the right side of the screen, flying to the left at different altitudes, but these are easily avoided. Not only can you easily jump or duck them, most of the path forward consists of a depression beneath the range of Bowser's attacks. Unless you stupidly jump into the oncoming fire, there's no real danger here... though it is worth jumping, because there are several invisible coin blocks at ground level above the depression (and more on top of those).

And, finally, we come to Bowser himself. The main villain of the piece does very little to stop you, surprisingly enough. He shoots those licks of flame, sure, but other than that he just kind of shuffles back and



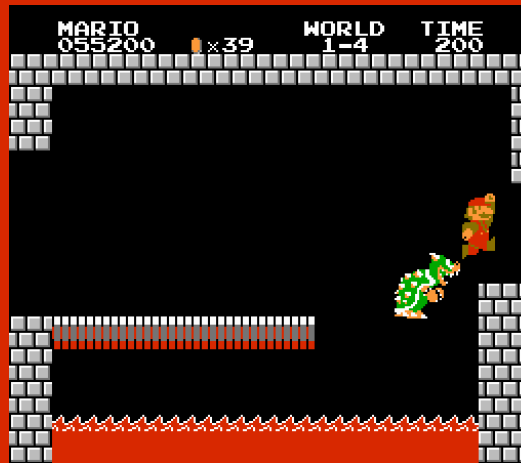
forth and makes tiny jumps. It's simple enough to sail over his head, even without the little platform floating above his head to ease the way.

The game ceases its scrolling here to convey the sense that, hey, this is the end, so you have plenty of space to sort out a strategy. Bowser sticks to the right side of the screen, leaving you ample room to dodge his fire and build up a leap.

But what to do? Bowser's spiny back and horned head make him deadly to jump on; unlike every other foe to date, he can't be beaten with a jump. I don't know that this is entirely intuitive; the designers might have been smart to have introduced Spinies—the game's other jump-proof foe—prior to Bowser to teach players the notion that “spikes = bad.” I can't speak for other players, but my first instinct when I first met Bowser was to stomp him, which proved to be unwise.

Rather than face Bowser directly, what you need to do is destroy the ground under his feet. Conveniently, someone stashed an emergency axe right next to the chain holding this bridge up. Beating Bowser is as simple as leaping over him and touching the axe, which instantly slices through the chain and causes Bowser's footing to retract. One comical Wile E. Coyote footscramble later and he plunges into the lava. You win! Game over. Advance and save the princess.

Oops, sad trombone music plays in your mind to underscore the triumphant in-game jingle: You haven't won after all. This is not the end of the game,

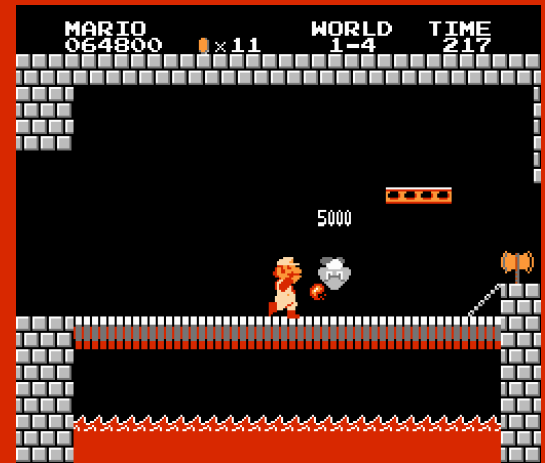


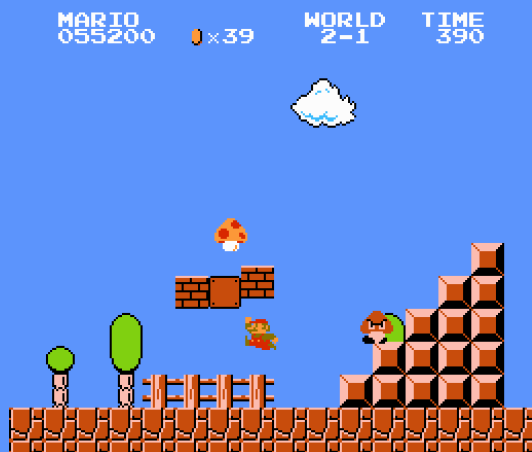
merely a false victory. The princess is elsewhere, and instead you've saved a fat creature in a mushroom hat.

In the context of the time, this is a pretty good gag. Mario's previous platformer outings—*Donkey Kong* and *Donkey Kong Jr.*—each consisted of four different stages with a “boss” showdown at the end. And there, as here, you won by destroying the ground beneath the boss' feet rather than confronting him directly. *Super Mario* sticks closely to the *Donkey Kong* formula in this regard... but once you reach the “end,” you discover you've only cleared an eighth of the adventure.

Certainly action games with a large amount of content weren't unheard of in 1985—*Pitfall II* was pretty huge!—but no one had seen anything on the scale of *Super Mario's* 32 unique levels on a console before. Not only was it the best-playing action game to date, it was also the biggest.

And, of course, Mario did have an alternative means for beating Bowser: Fireballs. If you're able to hang on to a Fire Flower from World 1-3 (or just enter the stage as Super Mario and snag the power-up above the fire bar between the lava pits), you can fight fire shafts with fire balls. A few hits takes out Bowser, at which point you'll make an interesting discovery: When defeated, “Bowser” turns out to be nothing more than a Gloomba in disguise. The whole thing was a sham! It's a neat little detail that demonstrates Shigeru Miyamoto's love for story-telling through gameplay... something weirdly absent from most modern Nintendo games.

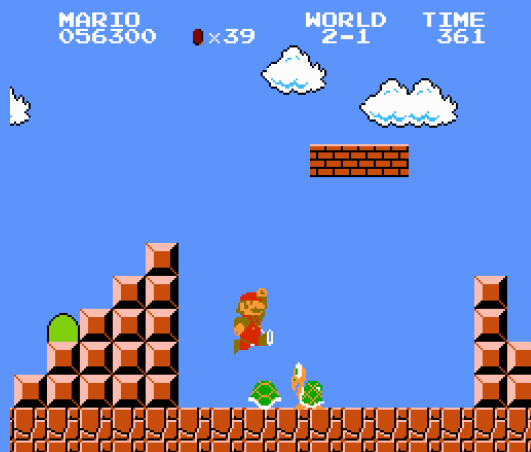




With World 2-2, *Super Mario Bros.* officially breaks from the standard cycle of previous Mario games. Rather than cycling back through the previous four levels after conquering them, the hero moves on to new and bigger challenges. The classic arcade level-cycle approach still holds some vestigial sway here, as the subsequent seven worlds do generally repeat the format of World 1—begin with basic ground-based action, venture underground, emerge into a platform-based challenge of agility, and face off against the boss in a castle—but no two levels are exactly alike from here on out. Instead, they grow progressively more difficult not through changing enemy behavior or speed but rather through cannier level layouts.

In some ways, the game really starts here. Which is sort of ironic, since few people play through World 2 once they find the Warp Pipes in World 1-2. They either skip all the way ahead to World 4-1, or else they jump to World 3-1 so they can farm 1UPs.

The previous levels had little moments of challenge, but generally speaking they were pretty simple, designed to ease new players into both the game and the genre. World 2-2 is much more varied and much more challenging than anything that has come before.



Take it slowly and you're fine—but at every turn, you'll come across little moments designed to make you give in to haste and screw up.

On the plus side, it begins with a kindly touch, offering you a Mushroom first thing. The first enemy you encounter comes immediately after the mushroom: A Goomba descending a staircase. Simple, easy, but a little different and unexpected.

Over the staircase is an interesting trap that lets you play around with the mechanics of turtle shells. Your first instinct here is probably to hop on the first turtle and kick it into the second, but doing so will send the kicked shell into an endless ricochet as it bounces between the walls. The longer you stay in this pit, the more likely you are to be hit by the shell. But, you know, you can also jump onto the shell to halt its motion. So, while this can be a dangerous situation, it's deadly only because of circumstances you create... and which you can defuse.

Your turtle evasion is also very likely to cause you to bump into the hidden block in this pit, located in the space immediately left of the bricks overhead. The coin block you reveal can be an impediment if by bumping your head you smack into a turtle or shell, but

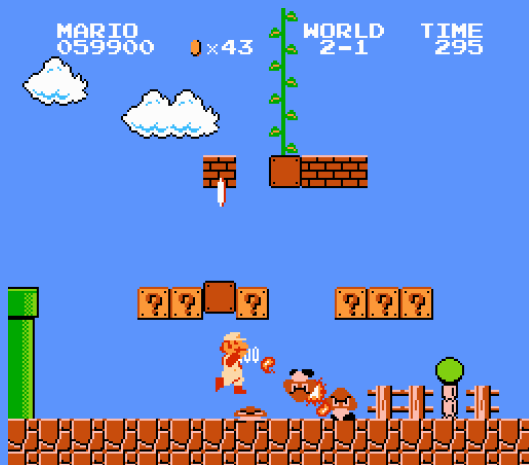


it also provides a spot of safety removed from the shell bounce. And if you try to use it as a stepping stone from which to vault over the bricks above, you'll uncover another hidden block which contains a precious 1UP. So despite the danger inherent in this little space, there's tremendous value in it as well.

Speaking of 1UPs, this stage teases you a couple of times with areas where you can kick a turtle shell into enemies and chase after it and almost rack up enough points for an extra life... but not quite. Eventually, the shell will hit another wall and rebound at you, which can be dangerous if you're running full pelt and don't have time to react. By and large, I would say the essential theme of World 2-1 is "turtle shells bounce off walls and kill you." It's a handy lesson to learn.

The big new feature in World 2-1 is somewhat of a hidden feature: A secret vine contained in a slightly inconvenient and slightly innocuous block. Striking the block will cause a vine to rise up and off the screen. Surprise: Mario can climb. If you hop on the vine, he'll scoot up and into the sky, where awaits a bonus area.

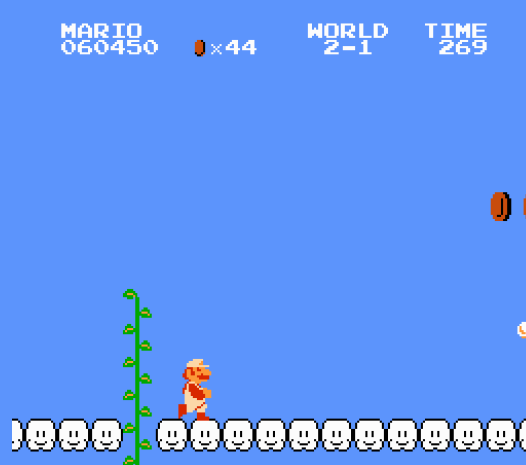
Fundamentally, this area isn't any different than the underground coin depots hidden down pipes in Worlds 1-1 and 1-2, but it feels functionally distinct.



It's mostly just window dressing—you're running along happy clouds in the sky rather than scurrying through a dank hole in the ground—but there is a mechanical difference as well. The coins are too high up to be reached easily with a normal jump, so you're meant to ride the small platform that slides along parallel to the ground to help boost you high enough to snag the prizes. A pair of three-coin clusters (one midway through, one at the end) challenge you to break from the rote motion of gathering the other coins in order to snag them all. This area is completely hazard-free, a pure bonus, to the point that when you fall into the "pit" at the end you will land safely back in the main level.

Pipes comprise another major feature of this stage, and most of them have Piranha Plants in them. If you don't feel like taking the coin route, you can snag a Starman that'll let you plow your way through to the end of the stage, mowing down every critter that stands in your way. Unlike in later *Mario* games, the points you earn for consecutive kills with a Starman don't multiply, so grabbing the power-up is less valuable here than taking the time to pick up as many coins as possible. Them extra lives....

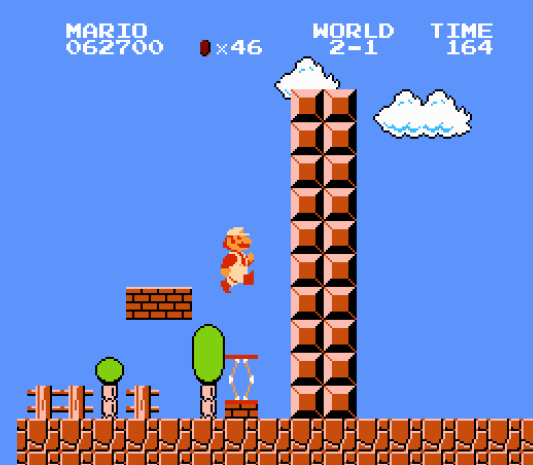
And finally, one last new feature to contend with: The spring. I'm almost certain this is a call back to



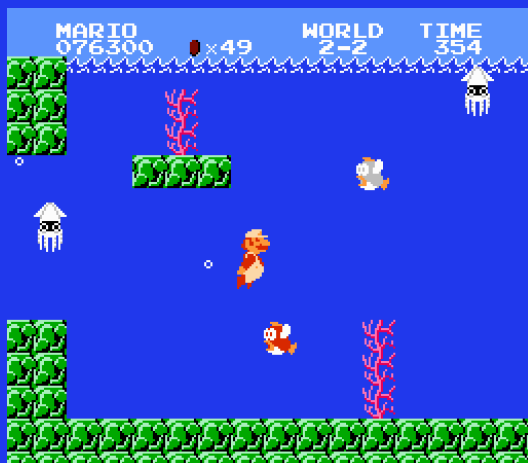
the third stage of *Donkey Kong*, where the ape chucked these things at you, but here they work in your favor. Hop on the spring and Mario will bounce off, but it's not a high enough bounce to send him over the wall here. Instead, you have to time a second button press so that you jump right as the spring reaches its maximum compression—that'll boost Mario's natural jump to send him sailing over the wall. This is a pretty gentle way to teach the slightly tricky timing involved here, as this is a safe area at the end of the stage, and you're free to continue fussing with the action until you finally master it. Or until time runs out, I suppose.

The high, narrow wall here serves the function normally reserved for the end-of-level staircase. We saw the layout of the closing staircase undergo its first mutation in World 1-3, but here it's an even more dramatic change. There's not enough room to build up momentum to leap to the top of the flagpole at the end of the level atop the column. Instead, you need to carry momentum across a perfectly timed spring jump.

So, this spring scenario works on two levels. One, it teaches you the basic mechanics of the spring. Two, it teaches you the inertia that extends across even special jumps like this. You can simply finish the level, or you can nail the physics and finish it with style.



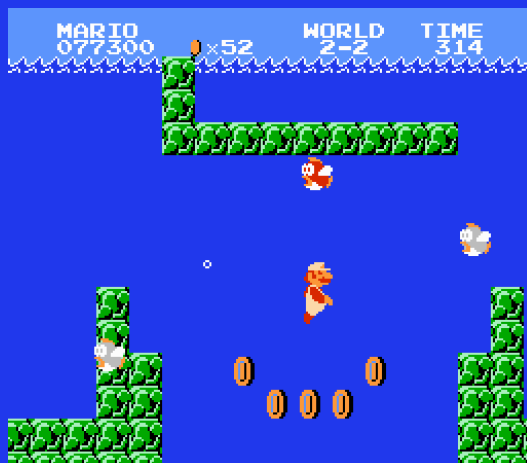
WORLD 2-1



Lest you think *Super Mario Bros.* will be content to simply cycle through variants on the first four stages over and over again until you reach the end, World 2-2 demonstrates that this is not the case at all. Yeah, it begins with a little cutscene of Mario leaving a fortress and taking a pipe underground, but that's about where the similarities to World 1-2 end. Beyond the pipe waits not another underground tunnel but rather a lake.

This brings a significant new game mechanic into play: Swimming. World 2-2 completely changes the way you control Mario. I mean, sure, you can walk along the bottom of the lake, but you don't jump. Pressing the jump button instead causes Mario to paddle, pushing himself upward. Constant gravity pulls at Mario at all times underwater, making it impossible for you to remain at a steady level. He's constantly sinking, and paddling up causes him to counteract that irresistible force.

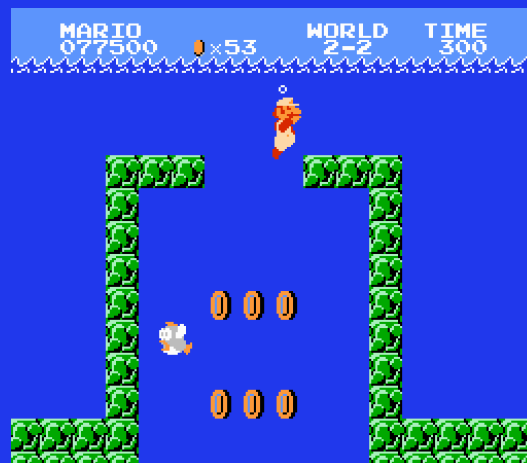
The frequency with which you paddle determines how you tread the water—infrequently enough, you simply slow your descent. Faster and you'll remain at roughly the same level, bobbing slightly as you dip and rise. Pump the jump button and Mario will quickly ascend to the surface.



That's not the only way in which Mario comes across as restless in this stage, though. Inertia works differently underwater, with forward motion not eventually diminishing into rest if you let up on the D-pad. Instead, you'll continue drifting forward through the water at whatever velocity you initiate for yourself. If you inch forward, Mario will go right on inching until you push the opposite direction; if you go full guns, he'll keep up that pace for as long as you let him.

The weightlessness and frictionlessness of water in *Super Mario Bros.* demands a different sort of play discipline. Enemies constantly surround you in all directions, rather than marching along the ground, and much of the challenge underwater consists of propelling yourself forward and keeping Mario afloat without bobbing into a fish. The lack of jump physics beneath the sea means you can't stomp a foe, after all, so there's no safe way to tackle a foe.

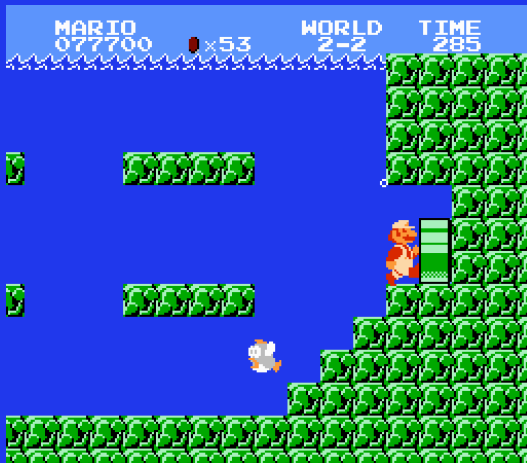
By and large, the fish—Cheep-Cheeps, presumably named so because they look weirdly chicken-like—are fairly harmless. Unlike in later games, none of them home in on Mario. Instead, they swim ahead in a more or less straight line with a tiny lateral variance, their speed dependent on their coloration. Very simple



and generally harmless.

The real hazard comes from the Bloobers, the white squid that dart through the water quickly and somewhat unpredictably. These are the first foes in the game that don't follow a steady, consistent pattern; they're beholden to physics similar to Mario's, constantly drifting downward and zipping upward against the pull of gravity as they advance. They tend to move at roughly 45-degree angles in spastic bursts, generally homing in on Mario's position. They'd be difficult enemies under any circumstance, but they're especially tricky underwater, and the threat they represent tends to cause players to get sloppy in their efforts to dodge them. You won't bump into a Cheep-Cheep under normal circumstances, but when a Blooper is bearing down on you and you're paddling like mad to get through a narrow passage and to safety? Suddenly those lazy fish become a real threat.

World 2-2 doesn't feature many complex structures or hazards. It's really more about getting a handle on this odd new way of controlling Mario, with only a few unusual spots (like this coin "pit") to challenge you to move with greater precision. Platforms do play a different role here than usual; rather than providing a means to avoid ground-based danger or a way to



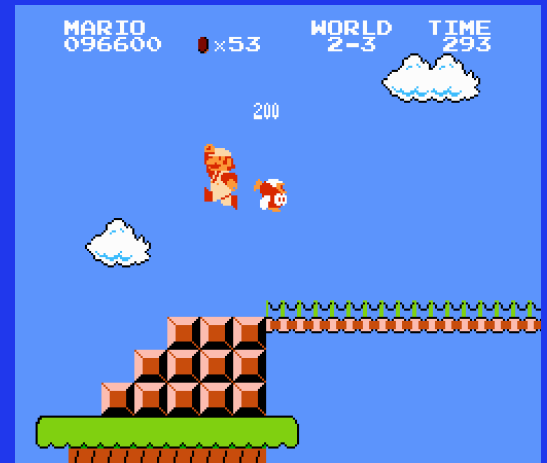
access higher areas, they instead prove to be obstructions. Mario will bump his head and lose momentum if he swims into a platform, so parallel rows of bricks make the going more difficult.

Of course, there is one possible way to mitigate the challenge of the water stages: Carrying in a Fire Flower. Mario can't jump on enemies, but he can certainly blast them. Don't ask about the logic of fire sizzling along underwater, just revel in the fact that you aren't completely defenseless. Fireballs are especially helpful against Bloobers, since the angle at which you throw fire and the angle at which the squid move tends to be about the same; they'll often dart right into your attack. Fools!

All told, 2-2 turns out to be pretty short. It's more or less a tutorial stage, similar to Worlds 1-1 through 1-4, and its modest hazards serve as a gentle introduction to a new type of action.

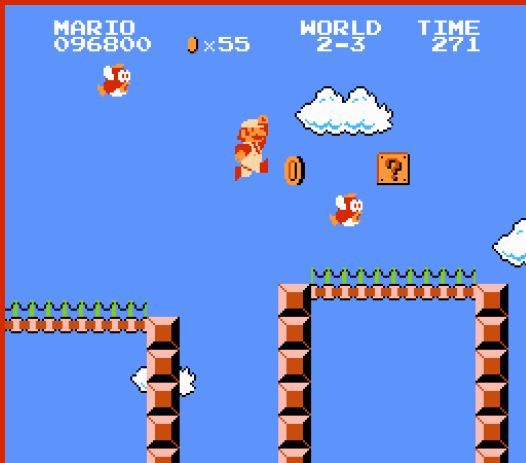
Interestingly, Mario doesn't have to worry about drowning. I assume he can simply hold his breath for 400 seconds, like the Olympic champion he is. For once, that inexorable timer in the upper-right corner actually makes sense.

WORLD 2-2



World 2-3 continues the trend established by the previous two stages: Paralleling the design of Worlds 1-1 through 1-4, but in a sideways manner that goes beyond mere cyclical repetition. And in a way that makes sense, too. Just as World 2-2's journey underwater echoed World 1-2's descent underground but played out in a completely different fashion, World 2-3 takes Mario way up high, where solid ground remains out of sight, but doesn't simply reprise the mushroom platforms of before.

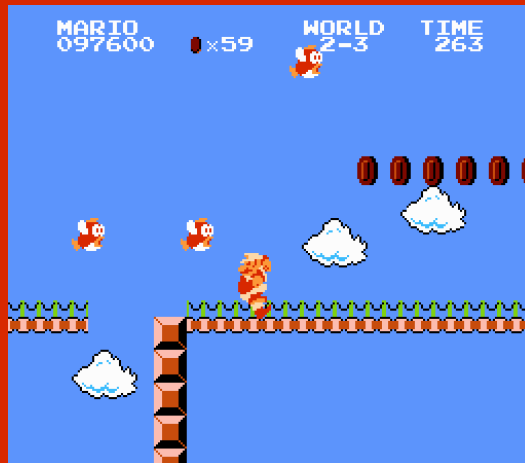
Instead, World 2-3 sends you dashing across a bridge that spans a wide river—a logical follow-up to the previous world's quick swim. Your footing here is more stable than it was in World 1-3, as the bridge largely consists of a wide, flat expanse. A few gaps in the span break things up and require some precise platforming, but for the most part your best bet here is to make a mad dash for it rather than fussing about with precise footwork. Still, there's more in common here with World 1-3 than a superficial lack of visible solid ground below; like the game's third stage, World 2-3 lacks any secrets



or alternate routes. Aside from a single power-up and some coins, Mario's only possible path is to dash to the flagpole at the end.

Cheep-Cheeps appear as the only foes you'll face here, and they behave quite differently than they did in World 2-2. Where before they swam slowly and in a simple straight line, now they spawn infinitely from below, sailing out of the water at Mario in long, lazy arcs. Generally, they leap from behind him in an arcing motion timed to bring them down on his head. The Cheep-Cheeps' motion is timed to bring them down in front of Mario if he moves at normal speed, but if he runs they'll always drop behind him. This stage is a cinch to complete unharmed by simply dashing. Run at full speed and you never need to worry about being hit.

This can be very slightly tricky when jumping, of course; if you move at breakneck speed and don't mind the height of your leap when you come to the gaps, you'll sail right into the fish. Now, if you happen to jump on a Cheep-Cheep (or if one smacks into Mario's



feet while jumping from below), you'll squash it, unlike in the underwater stage. But if one lands on you from above, you're as screwed as when any other enemy hits you from on high. So cautious hops are the order of the day.

There's another downside to simply running at top speed, of course: You won't be able to collect all the coins. And, it turns out (according to some references linked to by RayVGM, who also provided the images for this series), gathering all the coins in a World x-3 stage causes a precious hidden 1UP block to activate in the subsequent World x-1. So if you want World 1-3's optional 1UP, you'll need to take it slowly and gather all the coins. This makes you much more vulnerable to the Cheep-Cheeps, so as with so many factors in this game, you have to make a tradeoff here.

World 2-3 isn't a difficult stage—if your only goal is to reach the end of the level and move on, it's the least challenging level since World 1-1—but you need to step lively if you want to get the most out of the game.



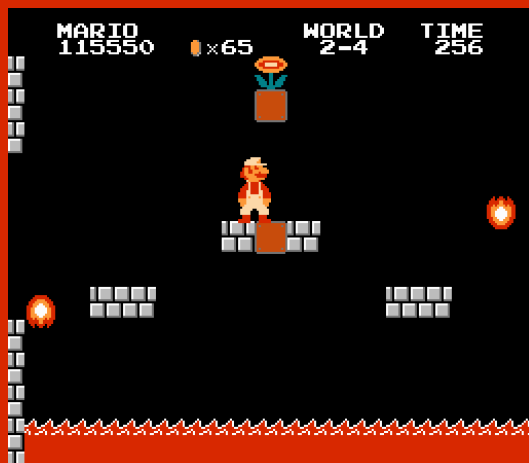
Nintendo has republished and remade *Super Mario Bros.* a number of times, but at most these new versions have only offered graphical improvements. There's one exception to that rule, however: *Super Mario Bros. Deluxe* for Game Boy Color, the antecedent to the Super Mario Advance series that helped launch the Game Boy Advance.

Rather than simply port *Super Mario Bros.* to GBC, Nintendo chose to rework it with new embellishments. Many of these amounted to cosmetic tweaks—changing the color of Luigi's overalls or adding new sound effects for certain actions—but others had much more impact. For starters, Mario or Luigi begin with five lives instead of three, and players can save their progress.

Even more impressively, *Super Mario Bros. Deluxe* includes as a bonus feature the entirety (or nearly so) of The Lost Levels, as well as several new challenge modes that would in turn inspire the bonus additions in the subsequent Super Mario Advance games. It even offers some pointless little bonus additions that make use of the Game Boy Printer.

Strangely enough, *Super Mario Bros. Deluxe* never received a proper retail release in Japan... which perhaps is why we haven't seen it on the 3DS's Virtual Console yet.

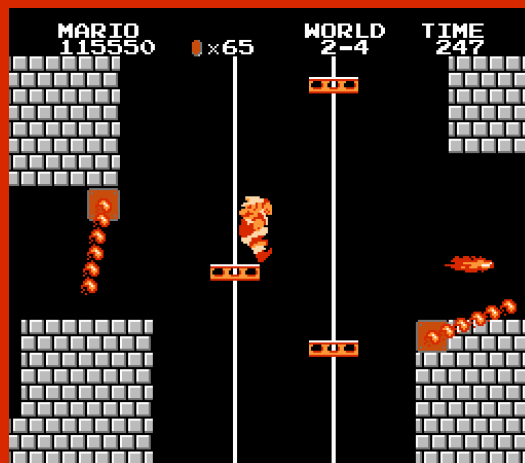
WORLD 2-4 ▼



World 1-4 brings Mario back into the castle scenario, though this Bowser showdown adds new threats to the mix. The initial moat of lava is much wider this time around, and it's "patrolled" by indestructible leaping fireballs called Podoboos. These rise from the moat in a quick vertical motion, slow down as they reach the apex of their jump, and drop back down into the fire. Mario has a couple of seconds between their appearance, so they're not unreasonably dangerous; they simply demand you remain on your guard and don't get too complacent about the seeming lack of enemies in the castles.

Beyond the fireballs, the path splits into two narrow passages. Either one is perfectly fine to take, but the upper path puts you at a disadvantage with no reward. It doesn't offer any particular spoils or power-ups, but the fire bars that obstruct both passages rotate in such a way that they turn with your movement in the lower path and against your movement in the upper path. So going via the bottom route makes things easy: You simply need to follow behind the bar's movement and you'll be safe. On the top route, however, you have to dash past a bar once it clears the way so it won't catch you on the return.

Beyond that, World 2-4 brings back the infinite elevators from World 1-2, but this time they're

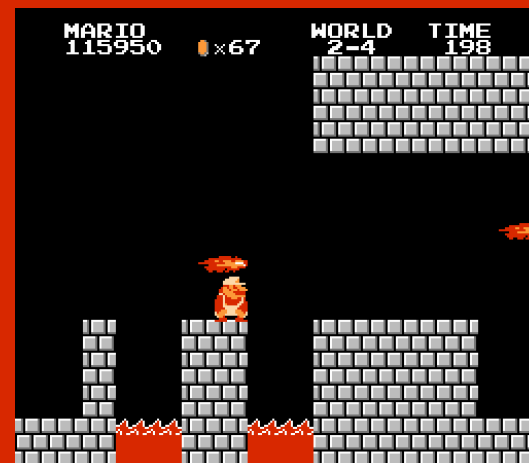


far more dangerous. Not only are the elevators smaller, both sides of the pit they traverse are guarded by fire bars. Plus, you don't have any safe ground to stand on between elevators—you need to jump from one to the other while in motion. On top of that, this is the point at which Bowser's gout of flame begin appearing from the right.

So that's three different moving hazards to overcome all at once, with the added challenge of no safe ground beneath the elevators. If the rightmost set (which descends into the pit) carries you off the screen, you're dead. You need to time your jump forward to avoid both the fire bar and the flame blasts. This is, by far, the most difficult single screen of the game so far.

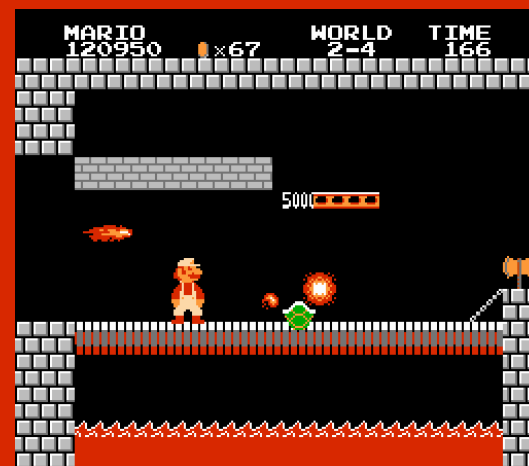
As you near Bowser, he continues churning out his breath of fire (making him quite the opposite of Capcom), even as you have to traverse more chasms of lava. Eventually, you'll get a little relief as a depression in the floor opens up and lets you progress well below the range of the flames, but the reprieve is brief and you really need to haul it to get there in the first place.

And even the final encounter with Bowser offers less clemency than the first. While he behaves the same as before, a low-hanging row of bricks occludes half of his chamber. You have the same goal as before—hit the axe to cut away the bridge, or bombard him with



fireballs—but it's much harder to simply sail over him with a mighty leap, as the bricks extend almost all the way to where he patrols. And if you choose to stand off and hit him with fire, you're likely to hit your head on the bricks while evading low flames. Bowser battles will grow far more difficult than this in the coming worlds, but this is your first hint that these face-offs will not be mere cakewalks.

And should you manage to fry Bowser, it turns out he was just a magicked-up Koopa Troopa. Hence the inevitable Mushroom Retainer ahead.





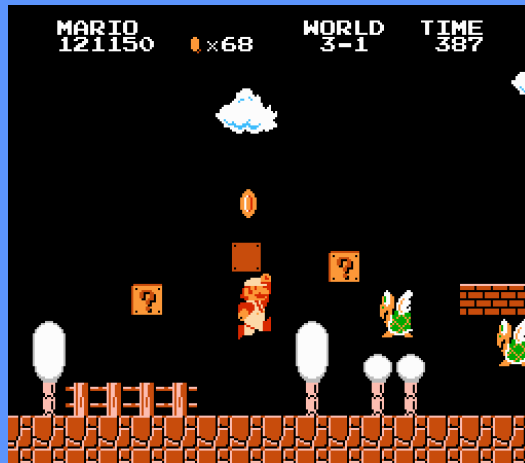
Super Mario Bros. tells a story. It's not a very complicated story—Mario saves the princess from an overgrown turtle—but it's a story nonetheless. And the game embellishes that story through small details. For instance, after liberating the castle of the second world and the illusory Bowser within, Mario resumes his quest in the dark of night.

How else do you explain the sudden darkness of the overworld areas in World 3? You're not underground, because you can see trees and clouds; and it's not like *Super Mario Bros. 3*, where the sky grows black once you enter Bowser's domain. You're traveling across the Mushroom Kingdom here, and the final two levels actually feature blue skies. Nope, Mario's journey across the Mushroom Kingdom spans two nights and three days. What a champ.

Now, I'm not discounting the possibility that Mario just chills out in the castles for a few hours after defeating them. Or, being a plumber, maybe he goes to work trying to figure out how to dredge and drain all that magma in the basement. He's cool like that.

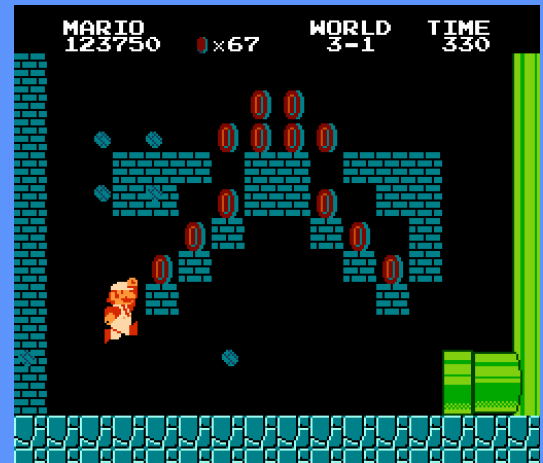
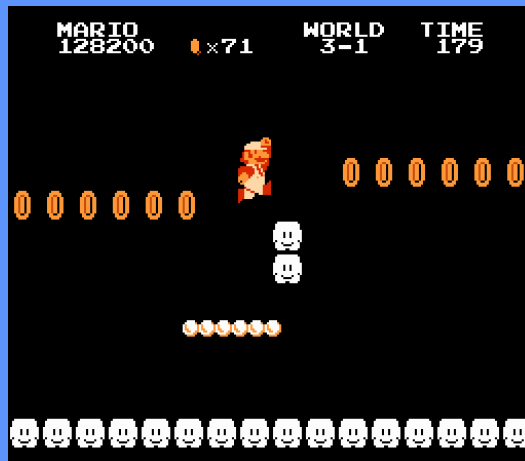
World 3-1 is the most generous stage since 1-1 when it comes to handing out power-ups: You have no less than four opportunities to grab a Super Mushroom or Fire Flower here. Some are hidden, sure, but that's par for the course at this point.

The reason for World 3-1's generosity? It's the toughest normal stage yet, introducing a couple of new enemy types. There's an expectation here that you're



going to find yourself in over your head, so the level gives you ample opportunities to beef up and procure a Fire Flower... or simply return to super size after you're inevitably reduced to tiny Mario upon taking damage.

Your first new challenge shows up straight away: Green Koopa Paratroopas. You've met Paratroopas before, but those were the red variety that simply hover up and down in place. The green type, on the other hand, knows no such restraint. It travels forward in a dogged advance, like its ground-based cousins, but it does so in bounding leaps. This makes it a much more difficult target to deal with, since Mario has to time his jumps so that he'll hit the Paratroopa from above rather than letting it come down on his head (though of course



with excellent timing, normal Mario can pretty easily run beneath them; for Super Mario it's a little more difficult).

Since this is the first time you deal with them, the game gives you a few outs. You can wait for them to come to you, or you can simply use the Question Blocks as platforms to bypass them altogether—the first block is conspicuously lower than the other two, beckoning you to an obvious route overhead. And once you get past them, your reward is a Super Mushroom.

Shortly after, you can drop into a bonus room via pipe, and inside is another power-up. What's interesting here is that the single blocks at the bottom prevent normal Mario from reaching the power-up in the top area; you have to break the blocks as Super Mario. This is the first time we've seen power-ups locked away behind some kind of situation requiring an existing power-up; it's both a way to scold players for being sloppy enough for somehow failing to make it the short distance from the previous power-up to the pipe where this one's hidden (to a small degree) as well as a way of ensuring players are properly equipped for the remainder of the stage and the challenges ahead (to a greater degree).

Much of the level consists of standard enemy formations in slightly new situations. The water theme of World 2 carries over very slightly here with a broken bridge across a river—something new—but it's patrolled by Goombas—old hat.

But all of this is simply preamble to the appearance of the real threat in World 3-1: The dreaded



Hammer Bros.

The Hammer Bros. will appear throughout the remainder of the quest, and they are in my opinion the most dangerous and threatening foes in the entire game. *Super Mario Bros.* seems to agree, as each Bro yields a tidy 1000 points upon its defeat. These guys don't move much—they roam back and forth across a span of ground a few blocks wide, really—but rather than presenting a lateral threat they control the vertical. Most Hammer Bros. encounters have them in areas like this, where they can jump freely between two different levels of bricks.

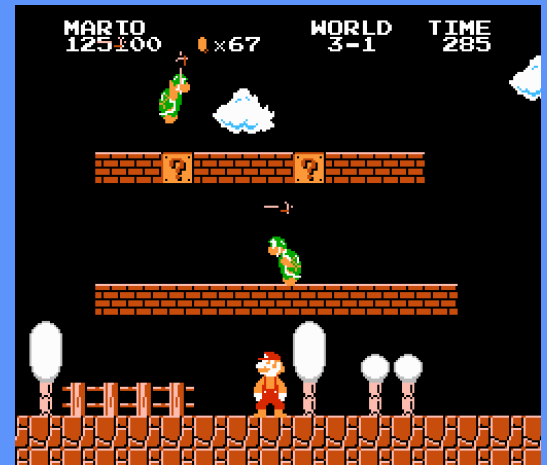
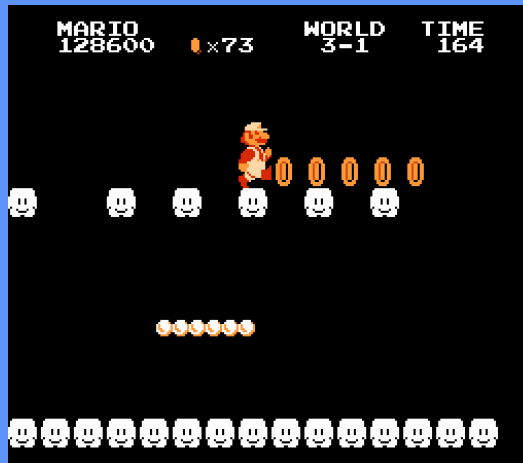
As they jump up and down, they also chuck hammers... lots of hammers. Their projectiles rise up slightly, make a sharp turn, and drop back to the ground. The hammers pose the real threat here, because they stream forward in a deadly shower. There'll be breaks in their movement, of course, or else it would be impossible to get past them. And the brick-punching skills you've learned elsewhere come in handy for clearing out Bros. above you (the hammers make it very difficult to attack them from above), but even then you have to be careful not to punch a hole in the lower platform that the higher Hammer Bro could drop down into.

This particular sequence, where you meet the Hammer Bros. for the first time, totally embodies the thoughtful design discipline behind *Super Mario Bros.* Because they represent a different (and arguably greater) kind of threat than anything you've faced be-



fore, they could easily be overwhelming for a first-time player. But shortly before you face them, you can grab a Starman to become invincible, negating the threat of the Hammer Bros. for this introduction. You have a short window of safety to take a look at their skills and behavior and familiarize yourself with them for this one encounter; the next time you meet them, you won't have the Starman to keep you safe. But because *Super Mario Bros.* gave you this chance to learn about them within a bubble of safety, you're prepared to face them the second time.

This is great game design. Nothing unfair, nothing arbitrary; just direct challenges that are revealed one by one, methodically, for the observant



player to learn from. The very specific placement of the Starman in this level really drives home that nothing about the way *Super Mario Bros.* unfolds is accidental or haphazard.

Another interesting feature of the Hammer Bros. encounter: Shortly beyond it you'll find a springboard that can propel you onto some bricks high above. But, if you take a running jump from the middle level of the Hammer Bros. platforms, you can land on the lower deck of the bricks above the springboard. (It's possible to do this from the spring, but very difficult.) Hidden in one of the bricks above is a secret vine that will take you to a coin-packed bonus area. Nothing indicates the vine's presence besides a tease for your sense of curiosity: You spring up to the top level and wonder, hmm, what's in the bricks I'm standing on? Can I get down there without falling into the pit below? It's not quite a puzzle, but it pushes in that direction: An interesting problem to solve for those with a compulsion to explore the contents of every possible brick in the game.

The bonus area also raises the stakes slightly, making you work for your loot. Besides forcing you to keep pace on a moving platform while jumping to collect coins, you also have to leap over (or duck beneath) occasional obstructions that would otherwise scrape you from the platform. It adds just a touch of complication over the game's previous cloud area—nothing dangerous, but demanding more attentive and responsive play as you travel further into the adventure.



And another lesson to be learned: Mario can run over single-block gaps with his B-dash. This isn't necessarily an intuitive action, so the game teaches you here in a safe place by planting coins over single-space gaps with no risk of dying if you screw up. You can try to collect them all by jumping, but it's difficult and imprecise. But you may make the connection here that you can dash over these small gaps—a skill that proves to be essential down the road.

And finally, of course, the main draw of World 3-1 for advanced players: The infamous infinite lives factory. Thanks to a quirk in the game physics, Mario can jump on the turtle descending the steps at the end (which echo the Goombas on the stairs at the beginning of the stage) and jump-kick it in such a way that the arc of Mario's bounce aligns with the rebound of the Koopa Troopa's shell. This creates a potentially endless loop in which Mario racks up multiplying points for each time he lands on the shell, which quickly become extra lives.

This wasn't a deliberate inclusion, but it's become such an essential part of the *Mario* lore that many sequels incorporate it. It's a simple, logical extension of the play mechanics—one of the earliest examples that comes to mind of a game with physics designed well enough to allow an exploit like this (as opposed to older exploits, which tended to involve glitches and programming errors).

WORLD 3-1

What was the world's first proper video game remake? It's hard to say, given the way games from the late '70s and early '80s tended to be reworked and converted for years after their initial release. But you could make the claim that Nintendo staked new territory in remakes with *Super Mario All-Stars*, which didn't simply compile four of its older games—it gave them a total visual overhaul and made minor mechanical tweaks as well.

All-Stars included *Super Mario Bros.*, both the Japanese and American versions of *Super Mario Bros. 2*, and *Super Mario Bros. 3*, all with 100% redrawn visuals that brought the games up to par with other 16-bit software. Despite their visual improvements, though, many fans tend to look down on *All-Stars* for making some small but noticeable changes to the games' physics. Still, despite this sticking point, *All-Stars* made for quite a package at the time of its debut: Four classic games, one of which had never before been released in the U.S.



Perhaps the strangest rendition of *Super Mario Bros.* was a rare Japanese release called *All-Night Nippon Super Mario Bros.*, which replaced certain graphics with references to a popular contemporary radio program. It's hard to imagine Nintendo letting its brands be used in such a way today, but in the '80s Mario wasn't quite so sacrosanct and Nintendo evidently didn't have a problem with what amounted to a ROM hack.

Aside from the graphical tweaks, *All-Night Nippon* does make a few interesting changes to the original *Super Mario Bros.* It carries over several stages from *The Lost Levels*, and some in-game visual and audio elements are revised to be consistent with the tweaks seen in that sequel. Certain objects and secrets have been rearranged, too, similar to *Versus Super Mario Bros.*

Perhaps not surprisingly, this strange and rare version of *Super Mario Bros.* (it was distributed only as a prize on the radio program) stands as *the* most expensive version of the game for collectors.



I love world 3-2, because the entire thing is an elaborate troll. The whole of the stage takes the form of a series of wide-open expanses patrolled by Koopa Troopas and Goombas, with the free areas divided up by narrow columns of blocks, single pipes, and the occasional small pit. It's a low-challenge stage that offers a small breather after World 3-1's hazards, and it's chance to get back to some basics as well. Interestingly, this is the first World x-2 stage not to take place in an underground area, instead simply feeling like an extension of World 3-1.

What's so trollish about it, you ask? Well, you can essentially divide World 3-2 into four segments, wide portions of ground patrolled by groups of foes. Each of these groups is led by a Koopa Troopa, which you can kick and chase to knock out the subsequent enemies without needing to deal with them individually. And, of course, when you use a Koopa shell to take out consecutive enemies, you activate a point multiplier that eventually culminates in a 1UP.

Naturally, if you've figured out this secret, you'll want to rack up as many 1UPs as possible here. Unfortunately, that's more difficult than it seems. Each of the segments comes up just a little short in terms of enemies to knock out, so your multiplier will almost (but



not quite) hit the 1UP every time. Instead, the kicked shell will hit a wall or pipe before chalking up enough kills and rebound back at you—and if you're not expecting the rebound, it'll plow right into Mario on its return.

The one exception to this exercise in tantalization comes with the third segment of enemies, which is populated just enough to allow a 1UP. But even that's not a given, as the lead Koopa walks into a pit almost immediately after he scrolls onto the screen. Worse, when he first appears, there's a narrow pillar of ground surrounded by pits on either side standing between you and the Koopa. On the pillar is a short pile of block with a low-hanging brick above it. In order to earn this 1UP opportunity, you need to jump over the pit, make a small hop through the narrow space beneath the brick, leap a second pit, and squash the Koopa.

You have about three seconds to do this, so there's very little room for error. If you can pull it off, though, you'll enjoy a hard-earned 1UP for your efforts. Remember back when *Super Mario* games treated 1UPs as precious commodities to be sought at great risk?

(Alternately, you can grab the Starman and totally squander the opportunity by just plowing through the entire line of bad guys.)

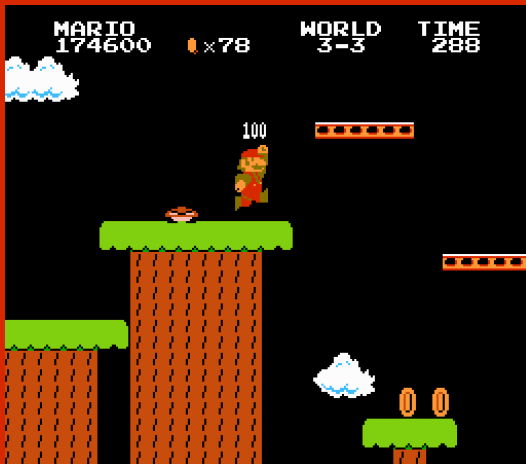
Super Mario Bros. broke new ground in many ways, and in doing so it heralded a major seismic shift from the age of arcade games to the rise and dominance of consoles. Perhaps nothing better embodied this revolution than the existence of an arcade port of *Super Mario Bros.* Where home consoles had for years been home to an endless struggle to create perfect conversions of popular arcade titles, *Super Mario Bros.* began its life on a console and eventually migrated to arcades due to its popularity.



Visually, *Vs. Super Mario Bros.* was identical to the home game. However, many elements of its design changed in subtle but significant ways in the process of changing platforms. Its difficulty fell more in line with that of *The Lost Levels*, even borrowing a number of *The Lost Levels*' stages for the sake of beefing up the difficulty.

Nintendo made *Vs. Super Mario Bros.* much less of a game about teaching through repetition and iteration, as a number of early stages which repeat as more difficult variants in the console version were excised, and the harder versions appeared in their place (with *Lost Levels* stages taking those repeat levels place in the roster). Coin blocks and hidden 1UPs were relocated or simply removed, and players could no longer warp to worlds 7-1 or 8-1.

If nothing else, *Vs. Super Mario Bros.* effectively demonstrates just how merciful and considerate the original game's design really is.



The third portion of World 3 returns to the “sky mushroom” style of World 1-3. This time, however, the moving platforms take on a different form. Rather than moving independently on their own time, they instead operate on gravity. They’re remain motionless until Mario jumps on them, at which point they quickly plummet. Like Mario’s jump, there’s an acceleration curve on their movement, so they drop slowly at first but steadily gain speed for as long as you stand on them.

The gravity platforms take two forms: Standalone and pulleyed. A standalone platform is as its name suggests: A single moving platform that gives way under Mario’s weight. You’ll need to traverse it and jump off the other side before it plummets off the screen.

Pulleyed platforms, on the other hand, behave somewhat differently. They’re attached to one another by a cable strung across two pivots. When one platform drops, the other rises. You can effectively create your own advantages with this mechanism, riding one platform until the other comes up high enough to give you an easier leap to solid ground. These devices aren’t without their own hazards, though; the cable connector doesn’t hold the platforms as securely as you might expect, so if you let one of them descend too far it’ll snap and fall freely. Worse, the counterbalance platform will rise to the top of the pulley and break free when it hits the fulcrum, dropping as well.

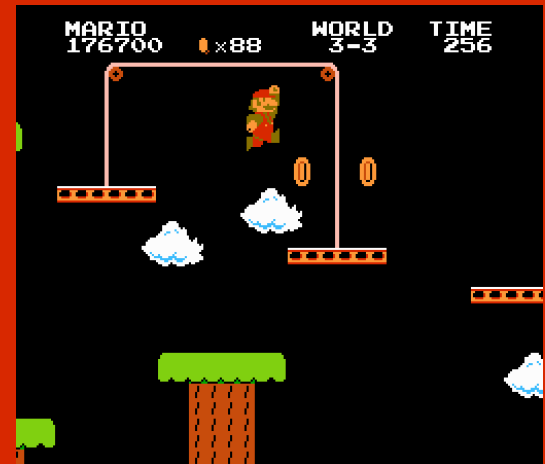
The pulley platforms are really designed to be dashed across. If you land on one at a run and dart immediately to the opposite edge and jump again,



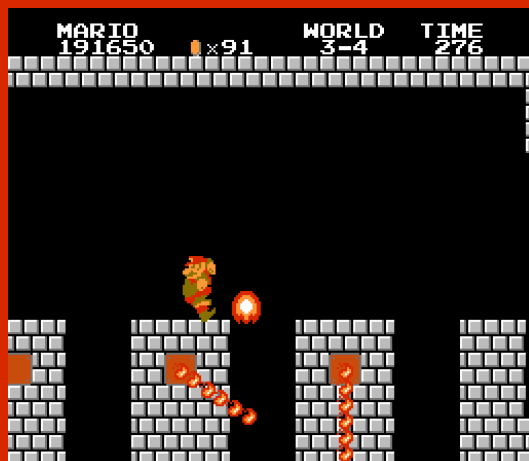
you’ll be perfectly safe and have no trouble reaching the second platform or the ground beyond. It’s he who hesitates who becomes lost; if you dawdle or second-guess yourself on the platforms, you’ll almost certainly lose both your momentum and your footing, allowing the pulley to snap and send Mario to his death.

The game waits until this point to introduce pulleys not only because they’re a more complex iteration of a device you’ve seen before, but because it expects you to have the confidence to use them properly at this point. It could have introduced pulleys and free-falling platforms way back in World 1-3, but those were still the “learning” stages of the game. But World 3-3 is the 11th stage of 32; you’re now one-third of the way through *Super Mario Bros.* By now, you should have a firm sense of the controls and mechanics. Maybe not mastery, but certainly enough of an instinct to know what to do in a situation.

And so, the game throws in a new element that demands you move with confidence... but at the same time, it builds on what has come before and introduces this new addition to the world in a way that allows a little trial-and-error. After all, you’ve already encountered the plummeting freestanding platforms if you’ve found the bonus cloud areas, where they first appeared with an effective safety net. When you encounter a motionless “moving” platform here for the first time, you should know exactly what it’s about—and when you encounter two linked together a short time later, its behavior won’t catch you off guard, either.



WORLD 3-4

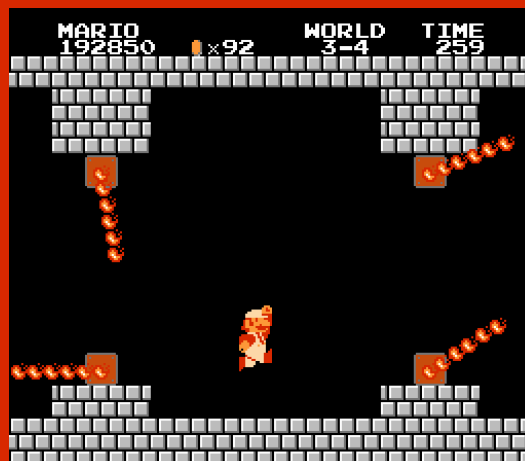


Another short and not entirely stressful castle stage; in fact, this one may be easier than World 2-4. Still, within its brief span, it combines the individual threats of the two previous castles into combined hazards, forcing you to deal simultaneously with the Podoboo fireballs at the same time as either the spinning fire bars or Bowser's gouts of flame. Again, these are essentially passive dangers that operate on their own timers, so success here ultimately comes down to getting a feel for the timing and not rushing ahead too quickly.

The stage opens with a series of small pits breaking up a number of even columns. Near the upper portion of each column, a fire bar spins, while Podobos leap into the air from the bottoms of the pits. The fireballs operate on a fairly slow timer, popping up every two revolutions of the fire bars.

Once you jump over the first pit, your footing becomes slightly treacherous as the fire bar beneath you will eventually swing around to where you're standing. Still, you have ample time to make each leap before the bar hits you, and it's low enough that you can leap over it by jumping straight up at the last second to buy yourself some more time.

Beyond the pits, the double fire bars from World 2-4 make a reappearance: One spinning above you, one at ground level. As before, the first two sets of fire bars rotate clockwise, so they're moving in the same direction as Mario—you have a wide window of time to

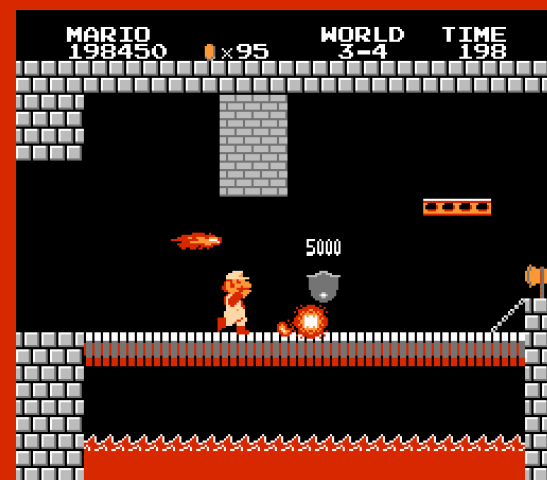
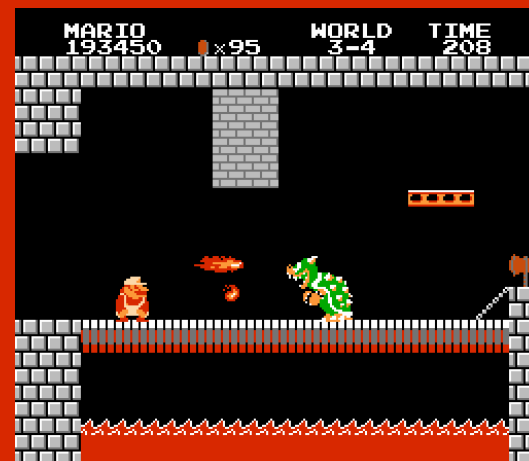


make your jump. The third set, however, rotates counter-clockwise; not only that, but they're staggered somewhat, shortening the window of opportunity even more. Once again, though, the level design is your guide: A trio of coins hovers just to the right of the upper fire bar, and if you aim for these coins once the upper bar moves past, you'll neatly clear the lower bar and land safely.

The final sequence should be familiar: Gouts of flame traverse the screen, right to left, as you make the approach to Bowser. This time, however, you need to duck them while also leaping over Podoboo pits, one of which works on a much shorter timer. Patience wins the day here, as eventually you'll have an opening in which you're flame-free as the Podobos fall. Beyond them is the usual pit in the floor, though here it's not really a safe haven as in the past: It's only a couple of bricks wide, so you can't really press forward beneath the range of Bowser's fire.

Once again, Bowser (or rather, his proxy) waits at the end of the stage over a bridge. This chamber is shorter than the earlier ones, and another low brick outcropping blocks most of the ceiling. You can squeeze in a jump between the bricks and Bowser to land on the moving platform above him, but this feat clearly is becoming trickier each time.

Should you manage to best Bowser with a Fire Flower, he'll turn into... hmm, weird. What is that round grey thing, anyway?





On to World 4-1. With Mario's arrival in the game's fourth world, Bowser introduces a new kind of hazard to the action: An infinite hazard that pours on the pressure from start to finish. His name is Lakitu, and he hates you.

Lakitu himself doesn't pose much of a direct threat; he flies around on a cloud at the top of the screen, hovering back and forth above Mario and never descending. You have to go out of your way to collide with Lakitu, jumping up on a high platform and standing still long enough for him to swing your way. The opportunity is there, to be sure—World 4-1 has a few spots where you can get up to Lakitu's level and take him out, and in doing so you run the risk of colliding with him. Most of the areas that offer a vantage point to take him on involve edge jumps to stacked blocks in which you have to move slightly forward as you make your leap, then pull back slightly in mid air to reach the block above. This is an advanced maneuver, and taking out Lakitu clearly isn't meant to be easy.

In fact, taking him out almost isn't even worth the trouble, because a short while after you knock him out of play, he returns. Lakitu doesn't operate by the same rules as other enemies, as there's only ever one of him on the screen at a time, but he'll constantly reappear as long as you're standing anywhere but the first and last couple screens of the stage (which appear to be outside his range: He'll scoot away once you get there). But you'll definitely be tempted to take out Lakitu, because he is history's greatest monster.



Lakitu's nasty trick comes in the form of something called Spinies. The Spiny looks for all the world like a smaller cousin to the Koopa Troopa, but unlike those familiar adversaries' rounded turtle shells, Spinies are completely encrusted with sharp spikes. As you might expect, jumping on a Spiny is bad news for Mario; they can't be stomped, only fried. You can't even flip them upside down to defeat them, as indirect Mario Bros.-style tactics (punching them from beneath) just makes them bounce into the air and carry on their merry way regardless.

The center of the stage plays up this fact with a wide expanse of elevated bricks that you can stand beneath and bounce Spinies to your heart's content. However, there's a two-brick-wide pit below the low bricks that Super Mario can't jump without bumping his head and risking a drop into the hole, so at some point you'll need to emerge from hiding and traverse the blocks overhead.

Of course, for regular Mario, it's an easy jump—and, better yet, one of the Question Blocks on the lower tier contains a power-up so you can get back up to fighting weight. This structure represents a touch of mercy for the suffering player, a moment of respite from the rain of Spinies and a chance to better your odds.

Like Lakitu, his rain of Spinies never lets up. As he flies overhead, he constantly tosses Spiny eggs, which sprout into little hedgehog-turtle-things the instant they hit the ground. They're every bit as deadly



as the Spinies themselves. Up to four of the things can be visible at a time, meaning that Lakitu totally spams the screen with a rain of falling danger from above that then sprouts and covers the ground with ambulatory danger. Spinies obey the same collision physics as other creatures, meaning they'll bump into one another and change direction. This effectively makes World 4-1 into an ocean of spikes, and it quickly becomes quite dangerous if you don't have a Fire Flower handy.

Though actually a fairly short stage in terms of real estate covered, World 4-1 feels exceedingly lengthy because of the stress generated by Lakitu. And unlike much of the rest of the game, there's no real moment of discovery or grace here to get a handle on this new threat; you're far enough in now that it's becoming rather sink-or-swim. I don't think it's a coincidence that this spike in difficulty appears at the further destination point from World 1-2's Warp Zone: Players who jump straight ahead to shortcut through the game face legitimate danger here for their impatience. If you want to warp, you do so at your own risk: This is a dangerous stage, and warping deprives you of the option to farm for 1UPs.

This isn't Lakitu's last appearance by any means, but it's certainly his most memorable. I suppose whether or not he's more dangerous than the Hammer Bros. is up for debate, but I give him the edge, personally. His persistence means there's no room for sloppiness in this stage.

WORLD 4-1

WORLD 4-2



World 4-2 takes Mario back into the underground in a level that calls back to World 1-2 in obvious ways, but does so primarily to throw you off-guard and hoodwink you.

In fact, the general layout of World 4-2 strongly resembles World 1-2, if that world's layout had been broken up by pits and chasms. The opening of the stage requires some of the most precise jumping yet, with medium-sized openings surrounding narrow columns. This portion of the level lacks any active hazards, so you have time to focus on making pinpoint jumps without external stressors.

There's only new element to contend with in this stage, and it's nothing as nasty or unexpected as Lakitu or the Hammer Bros. For the most part, we simply see familiar elements remixed in more dangerous ways. For example, the first power-up is hidden in a random block after the introductory pits; if you miss it, the next opportunity to upgrade your powers comes with a set of Question Blocks adjacent to a pit. It's set so that if it produces a Mushroom, that Mushroom will slide right into the pit. You don't have time to jump up and catch the Mushroom from behind, so your only means of snatching it is to jump over the pit and catch it in midair.

This isn't a new trick, but its most notable previous appearance was in World 1-2 with the 1UP



Mushroom that appeared from the ceiling. That was an optional hidden goody, though, whereas this is a more basic power-up in plain sight. Again, World 4-2 echoes World 1-2 with a greater challenge level. Advanced maneuvers that used to net you rare bonuses now come into play for fundamental play.

And, of course, if you remember World 1-2, you'll recall the Warp Zone secret in which you could ride a platform up to the top of the screen and run along the ceiling. The same trick works here, though you need to climb up to the ceiling a bit sooner and leap a large gap with a downward-moving elevator. Still, just as you could find a warp zone hidden at the end of World 1-2, there's one here as well.

Except... there's only one pipe, and it only lets you skip ahead two levels. What a rip-off.

No, the secret to true warp power lies elsewhere in the level—before the up elevator, in fact. By hitting two invisible bricks, you can create a small stair-step that lets you punch a brick high above the ground to produce a rising vine that takes you out of the underground. This is far more deviously hidden a secret, since it's a two-step process (find invisible bricks; use invisible bricks to reveal vine), and it requires a touch of curiosity. There are no enemies on this side of the pipe to provoke you into jumping the way you did at the start



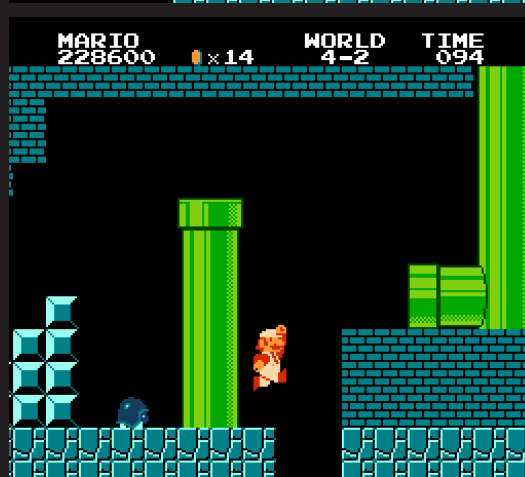
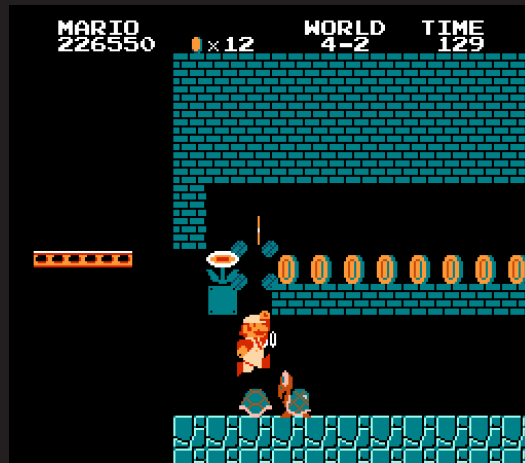
of World 1-1. Instead, your only clue here is that those two bricks seem like a tantalizing way to access the ceiling yet are too high to reach with a normal jump. You could potentially leap from the descending elevator, but even that's a tough jump to pull off.

It's unusual in this game for objects to break from the basic design of the stage layout for no reason, so this aberration should help entice you to puzzle things out. And if you don't figure it out, well hey, it's not essential. You can still beat the game through the normal route.

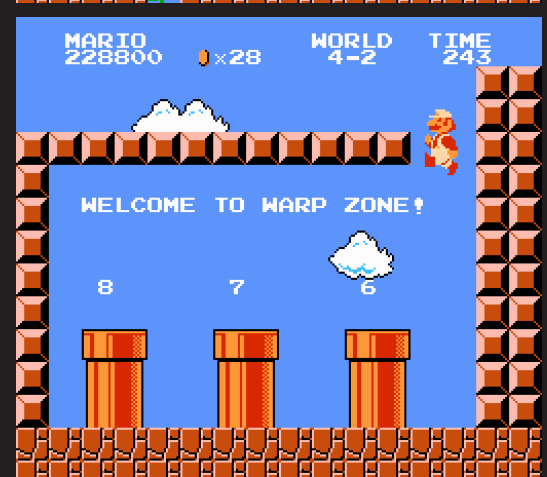
The vine leads you to what appears to be a World x-3 stage in miniature. Apparently there's stuff above the underground stages, if only you could reach it.

Past the mushroom platforms (and no hazards), you'll find the real prize: The true Warp Zone, which can take you all the way to World 8-1. But that would be cheating, so we're going to continue traversing *Super Mario Bros.* the hard way.

A pipe at the end of the stage leads to World 4-3, should you forego the multiple opportunities to leap ahead to advanced stages. And here we see the level's one new hazard: Buzzy Beetles, aka that weird round thing from World 3-4.

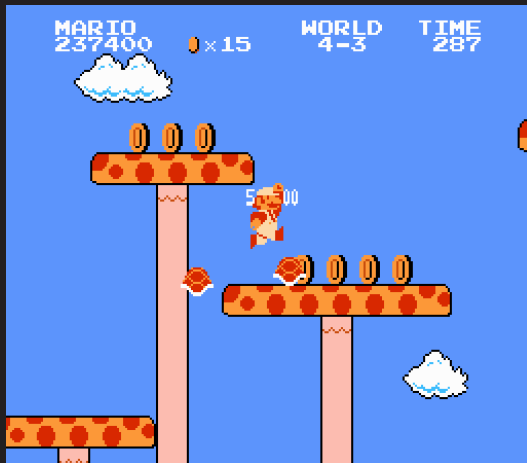


Buzzy Beetle is basically the inverse of the Spiny: Where Spinies' spiked shells make them invulnerable to Mario's basic attack technique, jumping, Buzzy Beetles can't be harmed by his advanced skill, fireballs. Their shell simply soaks up his attacks, the same as if the fireball had bounced into a wall. Like Koopa Troopas, they'll retreat into their shell if you jump on them, which allows you to kick them. But here in World 4-2, most of the Buzzy Beetles you encounter occupy narrow spaces with walls on either side. If you



kick one in these situations, you're creating a death trap for yourself as they'll begin bouncing back and forth at high speeds. The best tactic for Buzzy Beetles is one of avoidance.

Elsewhere in the game, Buzzy Beetles appear in more varied areas in combination with other enemies, but here they appear primarily in these setups so you can get a feel for their behavior and invulnerabilities in isolation—and, once you learn that Mario can't fry them, you can more easily skip past them.

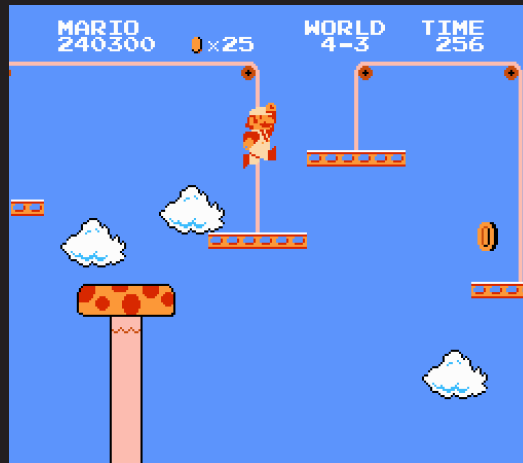


In keeping with the overall “back to World 1” theme of World 4, World 4-3 reprises many of the elements of World 1-3: Tall mushrooms poke into the sky, patrolled by turtles and connected by dropping lift platforms. And as always, the brevity and overall design of the stage precludes the presence of traditional secrets in the sense of hidden blocks of pipes to descend, though gathering all the coins scattered about here ensures a secret 1UP will appear in World 5-1.

The high-rise platforms in this particular stage rather definitively answer the question of their nature: Definitely mushrooms, with their orange caps and red spots.

The pulley platforms present the central gimmick of World 4-3, appearing in new configurations and offering new challenges. Those aiming to collect every coin here will find the task surprisingly challenging, as several appear slightly below pulleys. The technique for gathering them, of course, is to stand on the pulleys just long enough to get them to descend, then press jump the split second before you hit the coin. The momentum of the platform combined with the initial lag of Mario's jump will cause you to drop just far enough to collect the coin, but also lift you off from the platform in time to slow its descent and keep it from plummeting too far.

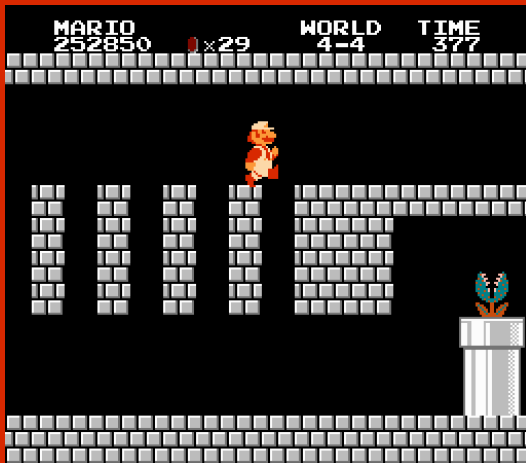
It takes some fine tuning to develop an instinct for the proper timing here, but it's important you



make the effort, as the specific attributes of the pulley platforms can definitely play against you here. Not only do they counterbalance one another, and not only do they eventually snap off the cable combining them if they fall too far, but here they exist in a curious point in the space-time continuum at which no one at Nintendo had yet cottoned to the fact that games are much friendlier if you can jump upward through platforms. (Kid Icarus would compensate for this flaw... perhaps a little too aggressively.) In this stage, you'll often find that if you let the left portion of a pulley system drop too far, you'll have trouble with the subsequent jump as the right side will have risen too high and Mario will bump his head as he jumps.

The centerpiece of World 4-3 is the series of three consecutive pulley systems that lead up to the end of the stage. The three appear in quick succession—six moving platforms in a row—and demand aggressive forward motion to prevent Mario from falling to his doom (or being unable to reach the next platform). As this is the first instance of this many unstable platforms in a row, though, the game offers its usual training wheels: Each pulley set is accompanied by a narrow mushroom platform that allows you a chance to take a breather if you need it. If you screw up on one of them, you're not completely boned. But those training wheels will vanish ere long.

▲ WORLD 4-4
WORLD 4-3 ▼

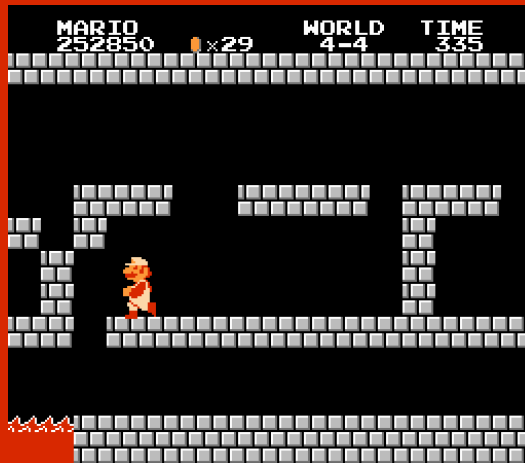


World 4-4 marks the halfway point of Mario's adventure, and as such introduces one of the most devious tricks to date: Split paths. While the level design appears at first glance to be no different from previous castle stages—only one enemy appears besides Bowser, leaving the bulk of the active threats to take the form of Podooboos, lava pits, and fire bars—the stage itself poses a devious danger.

Beyond the initial fire moat, the stage forks into high and low paths. This in itself is nothing new, as we've seen a few instances of divided roads through a level, but here only one path leads forward. The other throws Mario into a loop, forcing him to cover the same ground over and over again until he takes the alternate route.

The level splits twice, and if you screw up either half you're only thrown back to repeat that half from its beginning rather than being cast to the start of the stage. Chances are actually pretty good that you'd go for the proper path to begin with, I think; in the first half of the stage, the top route is correct, and in many ways it's more visually inviting. The bottom path seems more ominous thanks to the tunnel-like structure that leads into it, and generally speaking *Super Mario Bros.* has demonstrated that Mario is more likely to be at an advantage if he takes the high ground.

So, chances are you may pass through the

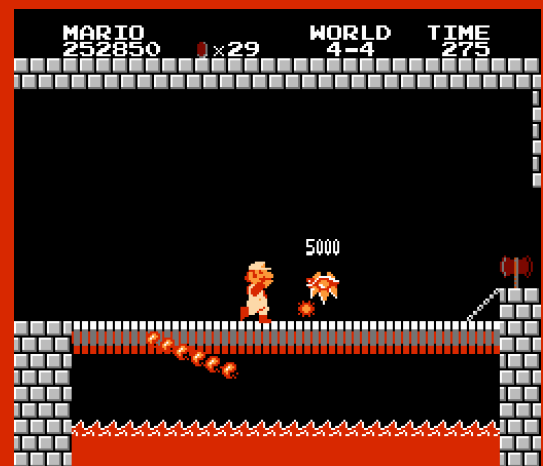
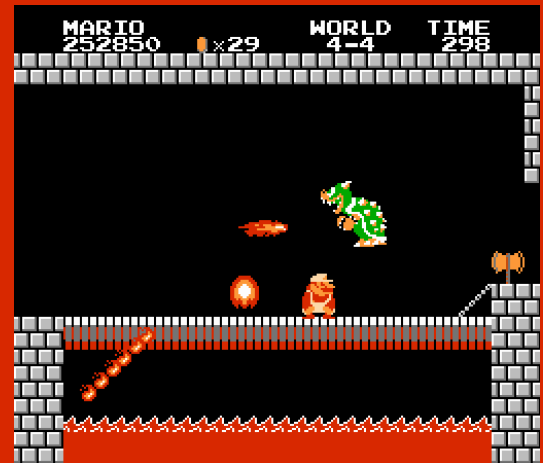


first half of the level without even realizing the hidden trap. The top route is easier to navigate, too, as the lower route contains a Piranha Plant (a rare instance of a normal enemy appearing in a castle stage) and a fire bar rotating counter to Mario's movement rather than complementing it.

However, you'll need to come to terms with the reality of the situation quickly once you reach the second half of the stage. Here, the lower path is correct, but this time it's extremely uninviting. The entrance to the lower path forces you to double back and drop down into a narrow hole directly adjacent to a pit of lava. Visually, it says, "Do not enter!" And yet you must, lest you endlessly repeat the second half of the stage.

The level timer in World 4-4 is fairly generous, so there's plenty of time to muck around with finding the proper course of action. Helpfully, the game provides audio feedback to complement your pursuit of the road to the end: A chime when you complete the correct path, a buzzer when you go the wrong way. And again, the hazards are fairly minor, so seeing your way to the end safely, before time runs out, shouldn't be too difficult.

The end of the stage presents you with the usual Bowser encounter. Unlike the past few worlds, the final room doesn't have bricks occluding the area, so it's much easier to sail over his head. However, it does



add its own new challenges by placing both a fire bar on the bridge and a Podooboo in the lava moat beneath him. Both of these dangers are placed in front of him, exactly where you'd normally stand to take him out with a fireball. You can't simply stand and open fire this time, because there's very little safe ground, especially with Bowser belching flame every few seconds.

However, if you do manage to take him out with fire, you'll find this time around "Bowser" was actually a Spiny—sensibly enough, I suppose. Now the adventure is halfway through, which means it starts getting hard from here on out.



The second half of *Super Mario Bros.* kicks off with a devastating tease: A level where three different enemy groups appear to almost, but not quite, allow you to earn a 1UP by kicking Koopa shells. The last group even demands a touch of finesse to not-quite-acquire the precious prize of a 1UP; the kickable Koopa appears after a trio of Goombas, so you need to jump over the little guys and kick the shell left, where it'll bounce off a wall and carom right for you to pursue after hopping over it on the rebound. But no matter; these critter clusters are only worth 8,000 points, max.

The notable new inclusion in World 5-1 comes in the form of Bullet Bills, an infinitely respawning new danger that straddles the line between standard enemy and scenery hazard. Bullet Bills (at least in this stage) can only appear upon being fired from a "blaster," a cannon mounted at fixed points. Most blasters can fire Bullet Bills either left or right, so even after you've passed one you're not necessarily safe—it can just as easily shoot you from behind. Bullet Bills can be fired endlessly from each blaster, but unlike other fixed-position and/or respawning foes like Podoobos and fire bars, you can "kill" a Bullet Bill by jumping on it. They are, however, immune to fire, a fact hinted at by the way they share a



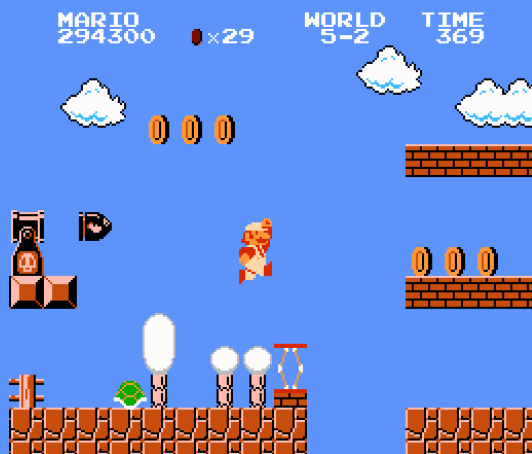
color scheme (and, heck, even alliterative names in the English version; in Japanese they're just called "Killers") with Buzzy Beetles.

This stage contains three blasters, all of which appear fixed to the ground, and all of which are aimed at the height of Mario's head. You can very easily duck each Bullet Bill—or, if you're standard Mario, simply run right beneath it. To make things even easier, the first blaster only fires if you've collected the Starman that precedes it. As with the debut of the Hammer Bros., the game extends an olive branch here by giving you temporary invincibility before a new foe takes its bow. But if you skip the Starman, the blaster remains inert, leaving you to puzzle over its function. With Starman in hand, though, a bullet comes screaming out at Mario, which he then knocks out by running face-first into it. You get to see the function of the blaster and the movement pattern of the Bullet, but from within a wreath of safety.

A new trick for the pipes here, too: For no logical reason, you'll encounter a pipe hanging in mid-air. This should be your clue that something about it is weird, and sure enough, it leads to a bonus coin room before disgorging you in front of a blaster that fires Bullet Bills with no regard for your state of invincibility.



WORLD 5-1 ▼



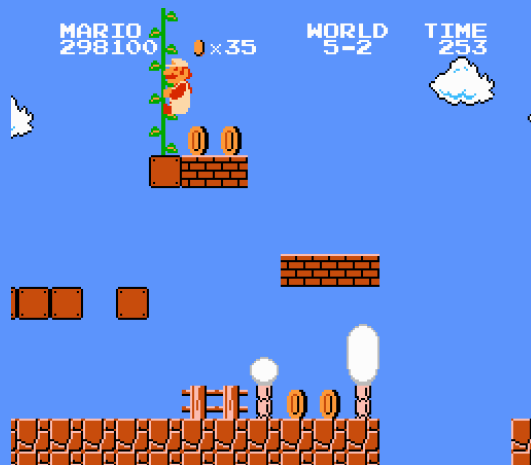
Holy cow, this level. With World 5-2, *Super Mario Bros.* manages to throw almost every one of its tricks to date into play, and it features so many secrets that you literally cannot see them all in a single runthrough. Nearly every foe, every scenario, and every hazard introduced so far comes into play here. All it needs is Lakitu, Bowser, and an impossibly huge spinning fire bar and the whole thing would be complete.

The world opens with a reprise of World 5-1's new element, the Bullet Bill. Its blaster is mounted at the top of a staircase, so its opening salvo sails clear over Mario's head unless you recklessly leap into action without watching for what's ahead. This is clearly just a warning shot.



Beyond the blaster you encounter a spring, which sends you over a pit and onto some elevated rows of bricks. As we've seen before, it's easy to use the spring to reach the top of the bricks, but nothing is up there; in order to make the most of this situation, you need to finesse your way onto the lower row, which allows you to grab a power-up.

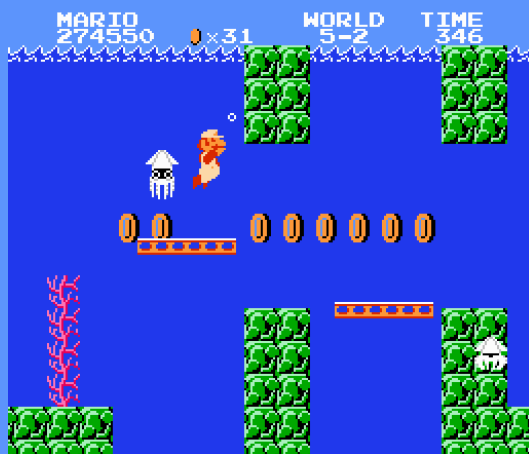
After that comes the first of four Hammer Bros. in the stage. If you're lucky enough to be holding a Fire Flower at this point, it's pretty easy to dispatch this guy. If not, though, you'll find him much harder to deal with as he patrols a staircase. This gives him the high ground and puts Mario at a distinct disadvantage, as you have to clear the Hammer Brother by leaping from

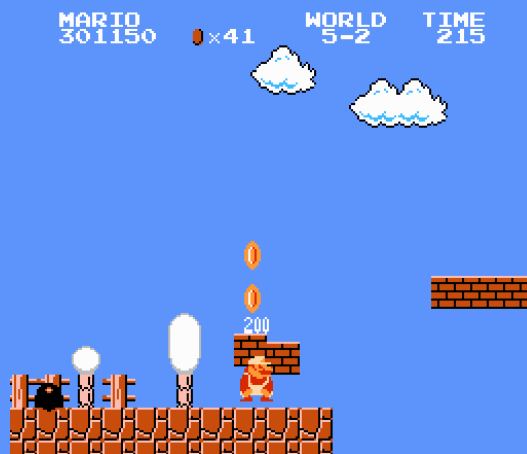


below, hoping you don't sail into his projectiles and that he doesn't make a big jump while you're above him.

Beyond here, though, you have three different paths to choose from. The first you find by ducking into the pipe shortly after the Hammer Brother. This takes you underground, but not to a cavern; instead, you'll come out in an underwater passage where you can collect coins while dodging Bloobers and Cheep-Cheeps. This is a low-reward choice with moderate difficulty—though naturally it's much less difficult if you're Fiery Mario and can fry the Bloobers.

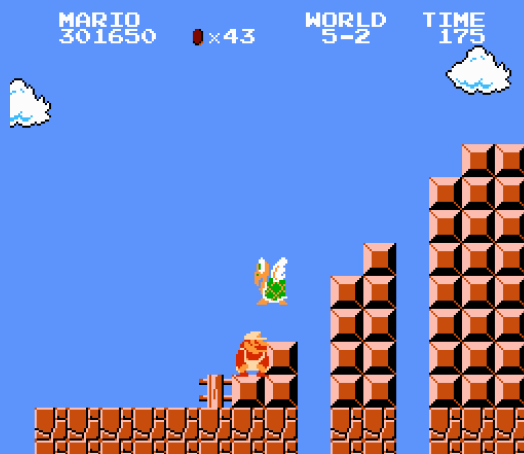
The second choice is simply to dash straight through the level. Taking this route, you'll have to contend with three more Hammer Bros., a Bullet Bill blaster,





Buzzy Beetles, and other threats. There are shockingly few benefits to this course, with no power-ups and only a handful of coins between the pipe leading to the underwater section and its exit. In other words, this is high risk, low reward—the most dangerous route through World 5-2 by far.

The best route, on the other hand, comes shortly after bypassing the pipe leading into the water. Hop over a broken staircase and take out a Hammer Brother and you'll find a hidden Question Block shortly after his stomping grounds. Use that block as a step to hit a block near the top of the screen and you'll spawn a vine, which leads to a path in the clouds where you can collect more than three dozen coins. Not only that, but when you drop from the sky you'll also have bypassed



the final pair of Hammer Bros.

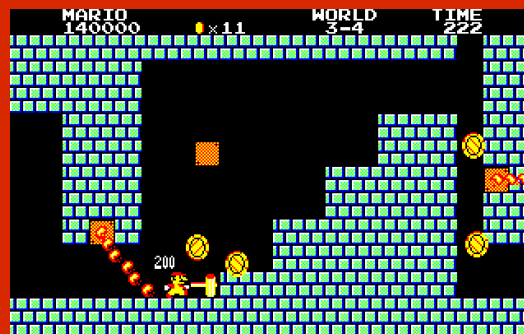
There's an interesting little bonus once you drop from the clouds: A pair of extremely low bricks that contain a hidden multi-coin block adjacent to a power-up. Standard Mario can simply run beneath the blocks to collect their contents, but Super Mario has to do a walking duck to squeeze beneath them.

The remainder of the level feels more or less like any other overworld stage, with the caveat that the ground has grown increasingly unreliable. Pits break up the landscape, up to and including the final staircase before the flagpole. Overall, World 5-2 sets the tone for the remainder of the game: Lots of familiar material and dangers, but constantly arranged in ever more devious configurations.

WORLD 5-2

Among the many legitimate versions of *Super Mario Bros.*, Hudson's *Super Mario Bros. Special* definitely stands out as the most bizarre. By 1986, Nintendo had basically stopped licensing its games to other publishers, presumably having realized that its original properties were its most valuable asset and the key to solidifying its console business. Yet for whatever reason, they decided to license their single most important title since *Donkey Kong* to Hudson for release on the Japanese PC-88 home computer.

Hudson, clearly realizing the PC-88 lacked the oomph to reproduce the finest game on Famicom,

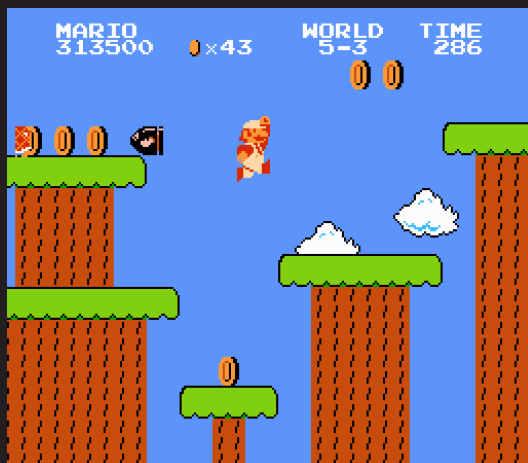


instead applied the creativity that had helped them come up with *Punch Ball Mario Bros.* The result—*Super*

Mario Bros. Special—takes tremendous liberties with the source material, yet manages to be deeply faithful to the concept of Mario.

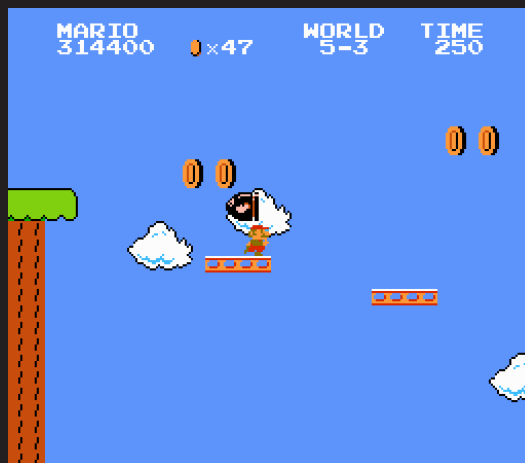
Perhaps most appealingly, *Super Mario Bros. Special* incorporates multiple elements from *Donkey Kong* and *Mario Bros.*: Everything from hammers to Sidesteppers. It's pretty much a Mario fanstravaganza.

The one downside: You can tell this wasn't a Nintendo-developed game, because the controls and physics (so essential to the Mario experience!) feel off. Combined with the fact that the levels don't scroll, it comes off as decidedly off-brand. But fascinating!



Bullet Bill puts in yet another appearance to create the most interesting twist on the World x-3 “mushroom platform” (though, in this case, it looks like we’re back to trees) stages to date. The fundamental design aesthetic dials things back a bit to resemble earlier x-3 levels, largely dropping the moving platforms and pulley rigs in favor of basic running and jumping high above terra firma. Mario faces a handful of enemies, but they’re all known quantities: Red Koopas and Goombas.

The Bullet Bills, however, work differently this time around. Rather than being anchored to the ground via blasters (and thus limited in their range and threat



level), here they’re being fired from off-screen. With no blasters to define their flight paths, these Bullet Bills fly freely across the screen and can attack on any level.

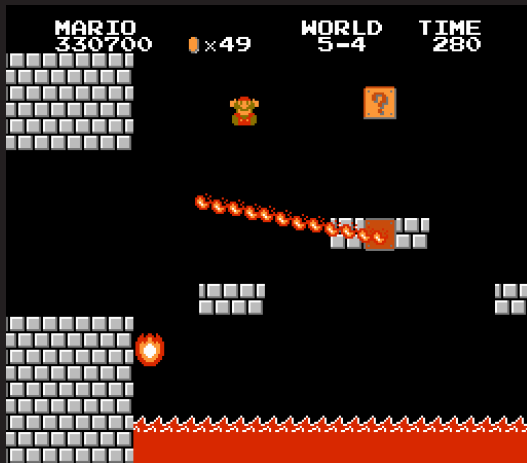
This makes for a slightly random threat, but not unfairly so. The Bullet Bills fire on a regular cycle, with never more than one on-screen at a time, and an advance gunshot sound alerts you to their imminent appearance. Because this stage is about Mario traversing uneven ground and constantly rising and falling with the platforms, the Bullet Bills’ haphazard flight paths keep you on your toes. Generally speaking, though, they tend to appear roughly on the same level as Mario is



standing at the time they’re disgorged, so you can almost definitely jump to a different altitude without fear of being caught off-guard by a Bullet Bill that unfairly spawned where you were jumping to.

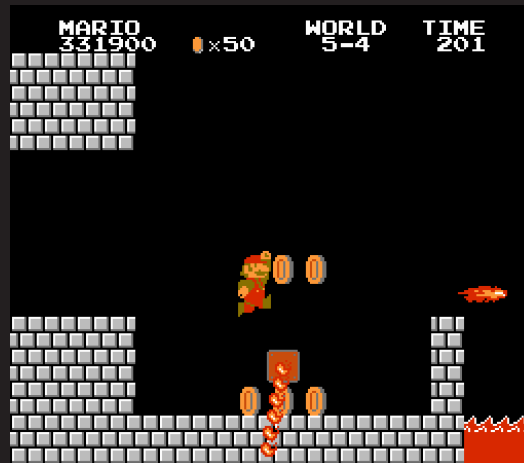
By far the trickiest area to navigate is the center stretch in which you have a yawning chasm spanned only by a pair of moving platforms. The looping up-down motion of the elevators should be no trouble for you by this point, but paired with the perpendicular flight path of the Bullet Bills definitely creates a taxing situation in which you need to pay attention to elements moving on both the horizontal and vertical axes.





For the first time, I think we can finally characterize a World x-4 stage as genuinely difficult. World 5-4 foregoes the maze-like nature of World 4-4 in favor of a presenting you instead with an insane obstacle course of fire bars. This level contains no less than 11 fire bars, including a nasty surprise at the very beginning: A double-length bar that forces you to rethinking your usual bag of tricks.

The extra-long bar is an uncharacteristic “gotcha” moment in this game. *Super Mario* is usually so scrupulous about offering fair warning for its new tricks, but here the bar is mounted on a point that you may not even see until you’ve jumped into its path. Thankfully, it does enter the playing field in a “safe”



position that gives you ample time to navigate past it, but between the shock of seeing this unexpected new element wedged between pits protected by a trio of Podooboos you’re just as likely to freeze momentarily and get caught in the fire bar’s sweep.

With standard fire bars, you can safely stand on their fulcrum and perform a full-height leap when they sweep upward, allowing them to pass safely beneath you. Here, however, you enjoy no such luxury. The extended bar is much too high for Mario to jump over, and it even sweeps through the Question Block above (where a power-up is located for the nimble). Between the deadly spinning bar and the bouncing fireballs, this opening sequence can be downright nasty... especially if

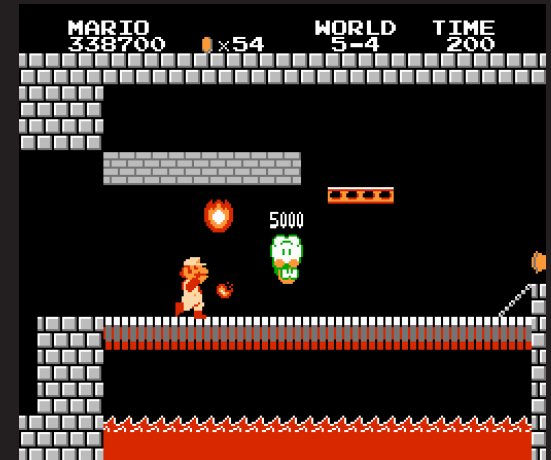
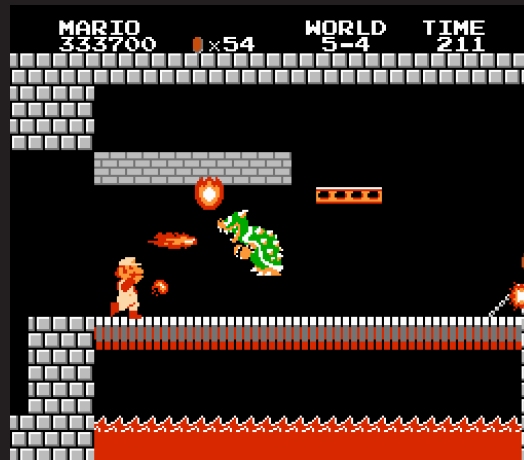
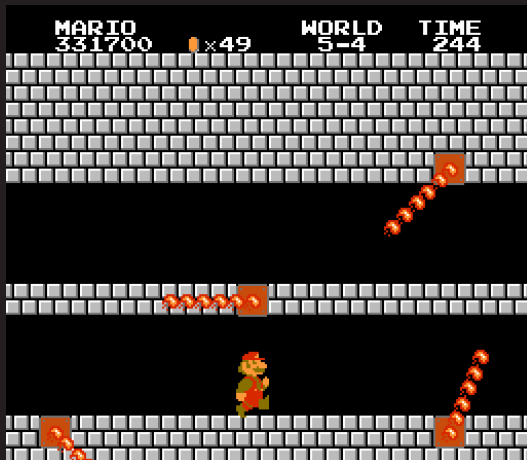
you just wander into it unawares.

The stage doesn’t let up after you clear the intro, though. A split-level hallway filled with smaller fire bars awaits, with the usual trick of a final bar that spins the opposite direction from the rest and forces you to change up the timing on your approach.

An expanse of narrow elevators moving in opposite directions marks your initial approach to Bowser’s lair. A fire bar on either side of the gulf forces you to be mindful of your timing for both mounting and dismounting the elevators, and the jump to terra firma is made even trickier due to the fact that it’s the point at which Bowser’s long-distance flame attacks begin to appear.

One final fire bar awaits, and it’s a nasty one. Despite being a normal length, it spins twice as fast as other bars, creating a large threat in the midst of a depression in the floor that would normally serve as a haven from the flame attacks coming from off-screen. Instead of offering you a breather, this pit poses a new and tricky hazard that can potentially make you leap into an oncoming flame as you dash to clear the fire bar.

Uneven ground pocked with pits and depressions make the final run-up to Bowser extra tricky, and while this stage lacks the bridge-based fire bar of World 4-4, the low brick wall returns along with a bounding Podooboo that occupies the ideal space to stand if you want to fry Bowser. Upon his defeat, this ersatz Bowser reveals himself to be a Lakitu.



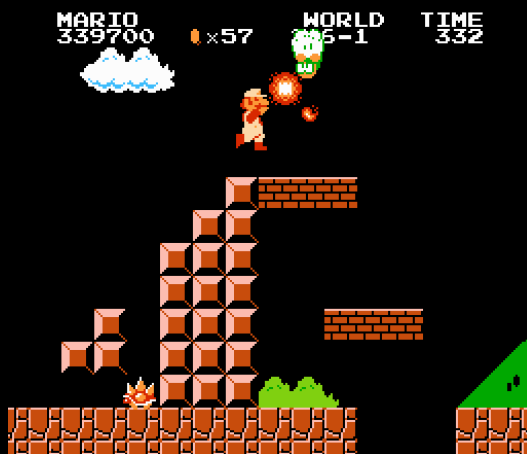


World 6-1 sees the return of Lakitu. This is *Super Mario Bros.*'s way of congratulating you on survival a brutal gauntlet: By following it up with something even worse.

Actually, this stage isn't too difficult if you have fireballs, since Lakitu's Spinies go down like suckers when you flash-fry them. Of course, that's something of a tall order given the previous stage; and there are only two power-ups in total in this world, the second of which appears very near the end, when it's too late to take proper revenge against Lakitu.

The stage design here does give you a fighting chance against the airborne nuisance, thankfully. Shortly after he appears, you can climb up onto a pair of bricks (one of which is a Question Block that contains a power-up) to take him out either by jumping or burning him. That gets him off your case long enough to get you very nearly to the next area where you can attack him, which constitutes the approximate midpoint of the stage. This second raised area is a little too low to make a jumping attack easily, but you can definitely shoot him with a fireball from up here.

If you manage to take out Lakitu once or twice, World 6-1 becomes something of a cakewalk. Of course, you'll be tempted by coin blocks and other bonuses to put on the brakes and not jet through the stage. Not that you really can. A mad sprint to the end got you safely



through World 4-1 if you didn't feel up to dealing with Spinies, but that's harder to do when the ground is uneven and often brings you much closer to Lakitu.

Yes, the high ground offers an advantage in that it puts Lakitu within your reach, but there's also a downside: The "run at top speed to safety" approach works by taking you beneath falling Spiny eggs, which is a cinch when Lakitu's at the top of the screen and you're way down below. But when you're at a higher altitude and jumping to climb stairs, you'll find yourself much less likely to be able to streak past the falling eggs... because they don't have as far to fall. It's a great instance of the level designers cleverly undermining a simple strategy by merely changing the topography and taking advantage of the way an enemy relates to the world and how that affects your own actions.

They also throw in some nasty traps. In the area where you don't really have a means of taking out Lakitu regardless of how well you're armed (and therefore subject to the constant assault of Spinies), there's a low-hanging multi-coin block hidden above a pit. If you take the time to farm the block for the coins within, chances are good that you'll give Lakitu time to drop a Spiny on your level and hem you in, leaving you nowhere to go besides dropping into the pit. In short, the very earth itself is stacked against you in World 6-1.



▲ WORLD 6-1 ▼ WORLD 6-2



Not surprisingly, World 6-2 echoes the design of World 5-2, giving you three different paths which which to complete the stage. The ground-based path straight through is the most difficult and least rewarding, while the jaunt through the clouds yields the greatest dividend with the most minimal risk. And, alternately, you can go underwater, if you want.

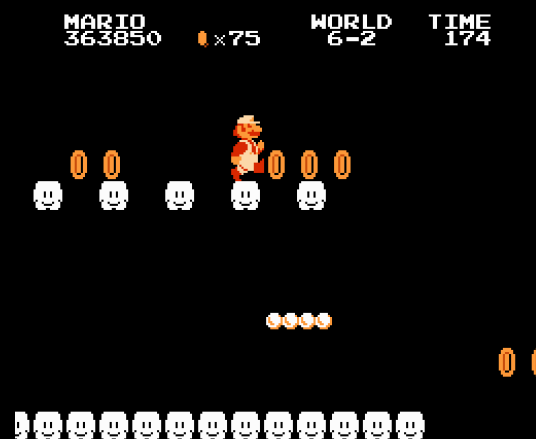
Piranha Plants and pipes define this stage. There are tons of pipes, most of which are occupied. If you don't have fireballs, the going can be pretty slow as you're constantly forced to pause and wait for the plants to pop out of their tubes and make vaguely threatening chomping motions at you. On the plus side, the abundance of pipes means there's also a record number of

hidden rooms to be found. Besides the underwater and sky portions, you can also drop into two underground chambers to collect a ton of coins... provided you can figure out which pipes contain the secrets.

The most interesting feature of the stage, however, appears toward its midpoint, just after the pipe that brings you up from the underwater area (and which you'd completely miss if you took the sky route): A wide pit. This in itself is nothing incredibly noteworthy aside from being the widest pit to have appeared to this point in the game. What makes it interesting is the way the level design offers a safe route over the pit... unless you're a pro player who's managed to retain a power-up to this point and has developed a habit of breaking every possible brick in search of secrets.

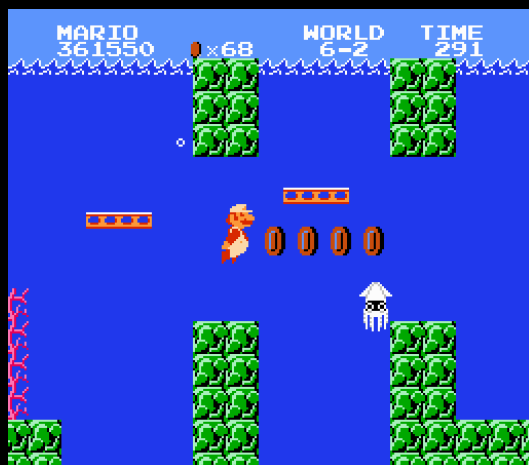
You can leap the pit with a running jump, but it's intimidating. However, there's a row of bricks high above that allow you to circumvent the chasm safely. To reach those bricks, though, you need to ascend a series of bricks and pipes to the left of the pit. At first glance, you might not realize those bricks are there for utility rather than to hide secrets. If you hit them in search of goodies, you'll simply shatter them, and in the process you'll lose out on your safe passage.

This represents a small turning point in the mentality behind the stage design of *Super Mario Bros.* Until now, we've generally seen the game give you a sort of safety net by making key blocks effectively



indestructible. Not only has this given Mario better footing, but it's also provided clues and directions for the optimal route. Here, however, the discipline of seeking secrets at every opportunity actually works against you. If you break those blocks, you have to take the more dangerous (albeit more straightforward) path.

In the first half of the game, hunting for secrets proved to be a valuable skill. As we approach the end, however, survival begins to take priority over thorough exploration. Time grows shorter in each stage, and you'll discover new ways to undermine your progress and miss out on something useful or even essential by being undisciplined.

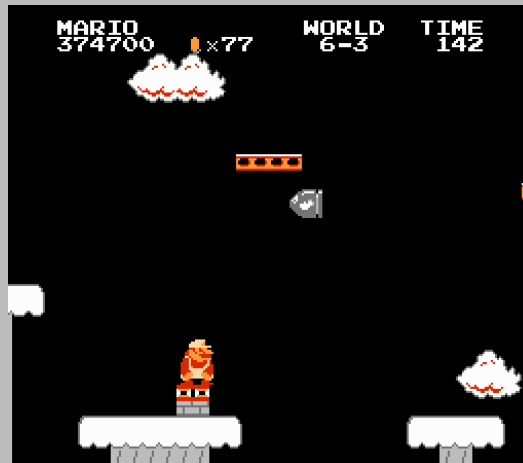
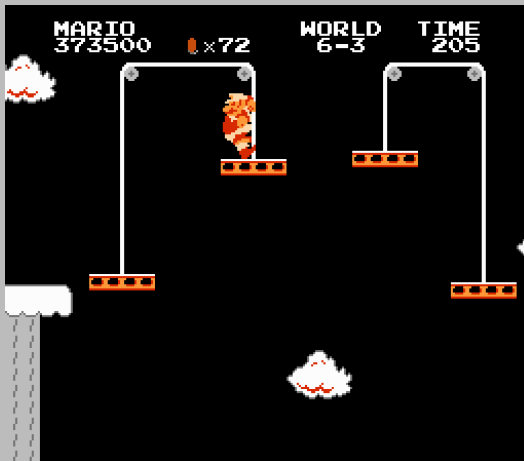




I remember being confused a long time ago when someone referred to the "ice level" in *Super Mario Bros.* "Super Mario Bros. doesn't have an ice level," I said, puzzled. Later, I realized they were referring to World 6-3, which features a monochromatic color scheme. But I never parsed it as ice, personally. This always struck me as a volcanic wasteland covered with ash, the only hint of color coming from the reflection of magma tinting the undersides of the clouds red.

Then again, it could just be that Miyamoto and co. only had so many different color schemes to work with and nothing in particular was meant with this particular design.

World 6-3 takes us back once again to the



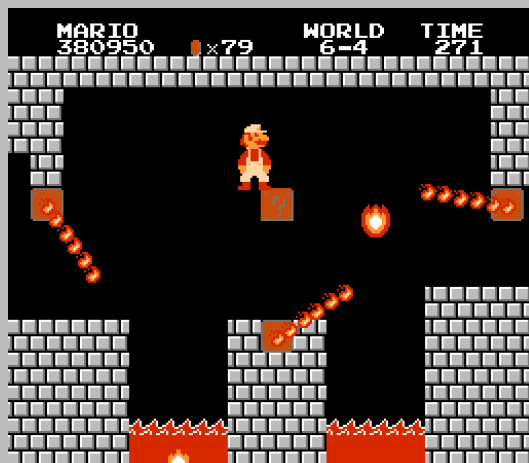
high columns and falling platforms of previous x-3 worlds. Things are trickier, though. Moving platforms are narrower than before, and there's even less firm purchase to be found on what passes for solid ground. In several cases, you need to leap off springboards and onto tiny shifting platforms high above. Simply completing the stage requires good reflexes, but gathering all the coins proves to be even trickier.

Midway through the level, Bullet Bills suddenly appear. They only harass you for a couple of screens, but their unexpected reappearance combined with the high ups-and-downs of this level make their return quite memorable. The part where you have to jump off a high platform down to a low springboard and bounce back up to the top of the screen while under fire from Bullet Bills requires calm nerves, for sure.

World 5-3's coins that can only be collected by riding a descending platform return here with a vengeance. This time, the platforms are simply stand-alone objects that drop more rapidly than the pulley systems and consequently require faster jumping. One surprising characteristic of the level design is that the further you advance into the game, the more finesse you need to apply in order to navigate the ever-shrinking platforms. Well, that's not a surprise, but the fact that this fine maneuvering entails relying less on the run button rather than more might be.



WORLD 6-3

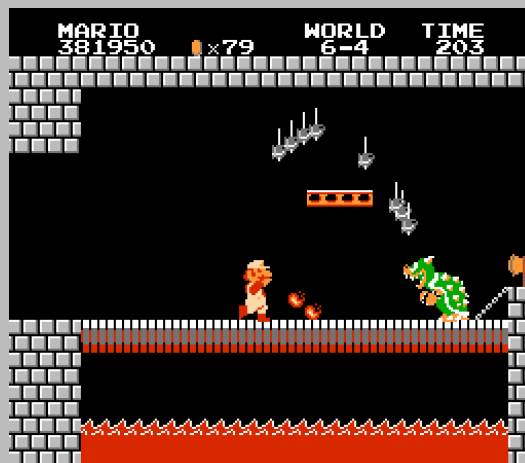


"Oh, man," you think. "This level is a total cakewalk!"

And it is! The challenge level takes a significant step backward in World 6-4 from the cruelty of World 5-4. No super-sized fire bars. No extra fast fire bars. Only a handful of Poochieos flanking columns dotted with fire bars. No tiny elevators to navigate. And the obligatory hall of spinning fire is much wider, providing far easier clearance than before.

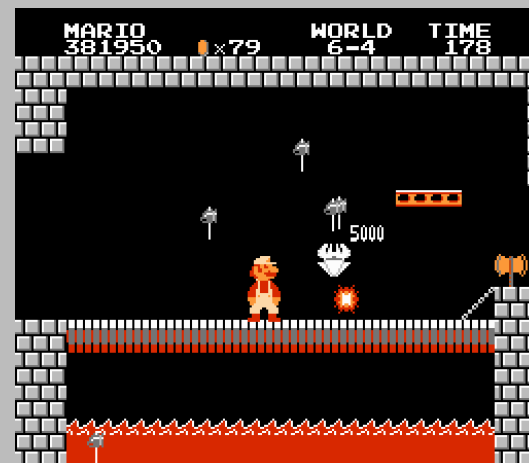
Then you get to Bowser.

Maybe you guessed something was up when



Bowser's flames started flying faster and more fiercely than before. Suddenly there are two on-screen at once instead of just one at a time. And they seem a little faster. And they tend to home in on Mario's position, too.

Another tip-off: A large depression in the floor with hidden coin blocks. Why call back to World 1-4 after progressively minimizing these little safety spots for so long? What could it mean? What it means is that Bowser has entered full-on bastard mode here. The encounter space at the end of World 6-4 is almost exactly the same



as in World 5-4... but for one difference. Namely, now Bowser can chuck hammers. Yes, just like the Hammer Bros., Bowser has his own projectiles. They arc up high, forcing you to make a very well-timed leap to clear them. And you'd better hope he doesn't jump when you do, because he continues tossing hammers even in mid-air.

This is the end of *Super Mario Bros.* even pretending to go easy on you. For the final quarter of the adventure, the gloves are off. Bowser has escalated things, and there's no going back.

Super Mario Bros. may have revolutionized the platformer genre, but let's not make the mistake of thinking it sprang fully formed from Shigeru Miyamoto's head—that it was conceived from the void. A number of other games had already staked out the concept of side-scrolling platforming by 1985, though none were nearly as successful as *Super Mario Bros.* This is because *Super Mario Bros.* was superior to its predecessors in almost every conceivable way. It didn't invent a genre; it simply took other people's good ideas and perfected them.

Williams introduced the entire idea of scrolling back in 1981 with *Defender*—that's 1981, as in the same year Nintendo was making huge strides in platforming with *Donkey Kong*.

Irem brought things one step closer the following year by taking *Defender's* concept of a scrolling

shooter and grounding it. With its forced forward motion, *Moon Patrol* didn't offer free-form multi-directional scrolling like *Defender* did, but it forced players to mind both aerial and terrestrial hazards in the form of flying assaults and dangerous pits to be jumped. In many ways, you could consider *Moon Patrol* the original "endless runner" game.

1983 saw Sydney Development expand on the runner concept with *B.C.'s Quest for Tires*, the first such game designed for consoles (in this case, the ColecoVision). Meanwhile, back in Japan, Taito married two-directional scrolling to platform shooting with *Elevator Action*. Unlike most examples of the genre, though, *Elevator Action's* scrolling was vertical rather than horizontal, so it went down in history as an outlier.

Things began to gel properly in 1984, when

Namco published both *Pac-Land* and *Dragon Buster*, direct antecedents to *Super Mario Bros.* In both games, players ran along a horizontal plane and leapt or otherwise battled hazards. *Pac-Land* closely resembles *Super Mario Bros.* in many ways, though its platforming is far simpler and its action isn't nearly as much to partake of (thanks to its use of *Space Invaders*-like buttons for movement rather than a joystick—despite the fact that *Pac-Man* pretty much canonized the joystick as the arcade control input of choice).

And even as Nintendo was developing *Super Mario Bros.*, Capcom was working in tandem on *Ghosts 'N Goblins*, a more robust variant on *Dragon Buster* that emphasized precision platforming to a much greater degree. In other words, if Nintendo hadn't made *Super Mario Bros.*, someone else would have done it.



Well, here you go. There can be no doubt at this point that *Super Mario Bros.* wants you dead. World 7-1 consists of a pure gauntlet of devastatingly placed foes, specifically Bullet Bills and Hammer Bros. There are a few other enemies that appear here and there, most notably a hilariously ineffective Buzzy Beetle tossed as an afterthought onto the final staircase, but the Bullet Bills are what you'll remember about this level.

Generally, the Bullet Bills appear in pincer formations, something you'll see right from the start. As the stage opens, you immediately face a Bill launcher situated at the height of Mario's head. It's easy enough to dodge, but once you reach the launcher you'll find that there's no real safe place to stand; opposite the first launcher is its double-decker companion, which fires Bills at ground level and a tile above Mario. If you're lucky, these will fire alternately. If not, they'll fire together, leaving you very little room for evasion. Potentially, there can be a Bullet Bill crossfire that stacks three right on top of the other.

The entire level consists of similar parings of



Bullet Bill cannons. Their height varies from installation to installation, but the overall theme remains consistent: You are under constant assault by Bullet Bills.

This is another of those stages where regular Mario has an advantage over Super Mario. The smaller character can fairly easily leap between Bullet Bill formations, duck the ones a tile removed from the surface,



and make small hops to avoid the ones gliding along the ground without fear of bumping into higher ones. Super Mario, on the other hand, needs to duck in order to squeeze through these situations, which kills his momentum and leaves him vulnerable.

When you're not facing Bullet Bills, you're dealing with Hammer Bros. Two pairs appear, each in the usual configuration of hopping along two parallel rows of bricks at different heights above the surface. Of course, tiny Mario is at a disadvantage here, because their constant flurry of hammer can easily take him out. So there's really no ideal strategy for World 7-1; no matter how you approach it, you're going to be in trouble.

Also of note is the fact that the two power-up blocks in this stage are placed pretty high. It's easy enough to coax a mushroom from them, since that power-up slides along the ground, but grabbing a Fire Flower requires a lot of effort. Even something as simple as collecting power-ups has to be difficult here. What, you think you're gonna beat this game? *Super Mario Bros.* has *opinions* about that little plan of yours.

It's sad but true: Worlds 5, 6, and 7 of *Super Mario Bros.* are the forgotten worlds. No one ever plays them, because you can warp right past them. Even World 3 gets more respect, if only for the 1UP-farming exploit. But the latter portion of the world more often than not ends up being bypassed in pursuit of speed runs, or simply a way to avoid some of the tougher stages in the game and ensure making it to the final level without needless complications.

It's an irony. *Super Mario Bros.* stunned gamers back in the day precisely because it was so vast and offered 32 unique stages. But once the warp zones were uncovered, the game effectively shrank to eight stages for the majority of players.

It's also a pity. The second half of *Super Mario Bros.* is a master class in iterative game design, as the hazards and challenges of the first four worlds repeat in new variations, demanding players apply their skills with familiar threats presented in new ways and in unexpected combinations. The stunning brilliance of *Super Mario Bros.*'s level design becomes lost in the rush to reach the end as quickly as possible.

And hey, there's nothing wrong with dashing to the finish as quickly as possible. But there's joy to be had in the journey as much as in the destination. I guess what I'm saying is, slow down, you move too fast. Next time, skip the warp zones and enjoy the depth and skill of the level design in *Super Mario Bros.* Play it again with new appreciation and understand why it changed the medium forever.



As opposed to World 7-1, World 7-2 has a very simple strategy for doing well: Grab some dang fireballs. Of course, this is more easily said than done, as World 7-2 contains no power-ups. But, if you managed to carry over a Fire Flower from the previous stage, this level is more or less a cinch: Underwater, everything falls before the fury of Fiery Mario. Really, your only concern is the abbreviated time allowance, which greatly increases your chances of running out of time if you take things slowly and fry every enemy in sight.

On the other hand, if you don't have firepower on-hand... hoo boy.

World 7-2 begins with a fusillade of Bloobers. Three appear in quick succession, doing their usual herky-jerky swimming thing and basically being complete bastards to avoid. If you can't take them out, they'll follow you, and there's nothing more fun than being surrounded by fast-moving, unpredictable enemies that can center in on you from all directions.

Further along, Cheep-Cheeps begin to appear en masse. They're thick enough (and the level design cluttered enough) that they're difficult to avoid on their own, but when you have an army of Bloobers in hot pursuit, it's like wading into a minefield.

At this point in the game, we're long past the point where new hazards and challenges will be added to the mix. Instead, what we're seeing are denser, more devious arrangements of known dangers. Bullet Bills appearing in trickier formations, Bloobers chasing you through congested fields of Cheep-Cheeps—these elements were introduced in Worlds 2 through 5 in challenging but not unreasonable configurations. Now that you've gotten a taste of them, however, World 7 shows you what they're capable of when arranged to fully devious effect.

WORLD 7-1
WORLD 7-2



Case in point for my previous claim: World 7-3 sends you into a reprise of World 2-3, but one that's far, far more difficult than what you dealt with before. Once again, you have a bridge stage following an underwater level, but the gauntlet of flying Cheep-Cheep is several orders of magnitude more difficult to pass through than the one you dealt with before.

This time, the Cheep-Cheeps come leaping in three or four at a time. They arc high into the air before plummeting, carefully matched to your velocity: If you run full-tilt, you'll always pass right beneath them. Unfortunately, that's not possible this time. Not only is the ground more uneven this time around, the entire stage is patrolled by Koopa Troopas. And so, you're constantly jumping—and every time you jump, you forfeit the advantage of running at breakneck speed. The arc of your leaps is quite likely to cause you to collide with a Cheep-Cheep as it plummets downward.

And even if you have fireballs this time around—which means you can fry Koopas as you dash

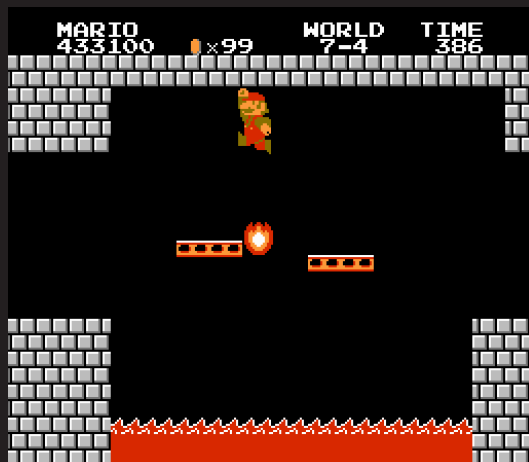


ahead, clearing out the way—eventually you'll encounter Koopa Paratroopas, which flutter back and forth high enough above the ground that your fireballs won't hit them. Small Mario again has a small advantage here in that he can run beneath these guys, but the air is so thick with Cheep-Cheeps it's hard to see that vulnerable state as a particularly wise strategic move.

Honestly, this is one of the few instances in which *Super Mario Bros.* verges on unfairness. The Cheep-Cheep storm flies fast and thick from behind you, and if you don't keep on the move it's quite likely you'll be hit by one, avoidably, for having the audacity to pause even slightly.

By simply tweaking the fishes' rising arc so that they come up somewhat behind Mario, the designers could have made this stage much more tolerable. Instead, the thrill of its breathless momentum is somewhat undermined by the frustration caused by the high likelihood of a fatal split-second collision you can't possibly predict or avoid.

▲ WORLD 7-4
WORLD 7-3 ▼

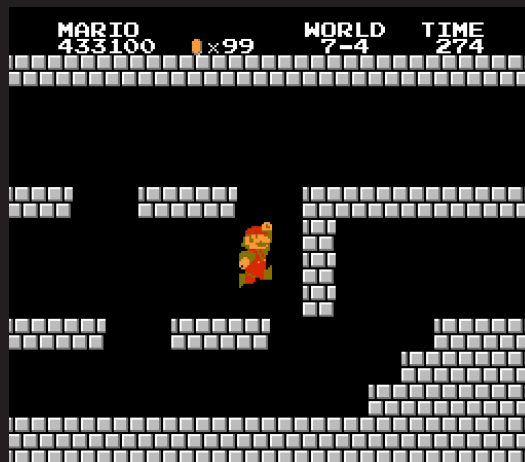


Another castle maze, World 7-4 can be downright infuriating until you figure out its disarmingly straightforward patterns. As with the previous maze level, World 7-4 consists of an intro, a conclusion, and two maze segments in between.

The intro is easy enough: Two dropping platforms over lava, punctuated by a Podooboo. Once you enter the mazes portions, though, you're confronted by a series of broken platform fragments.

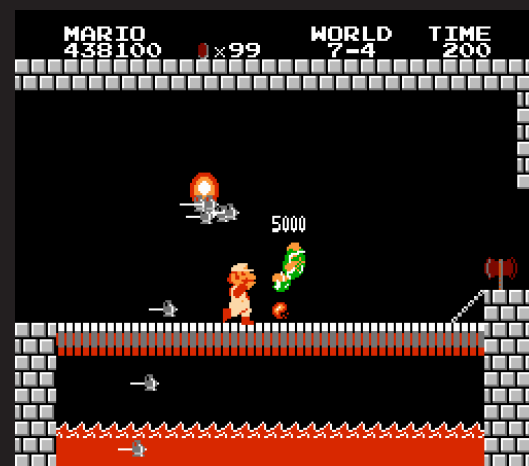
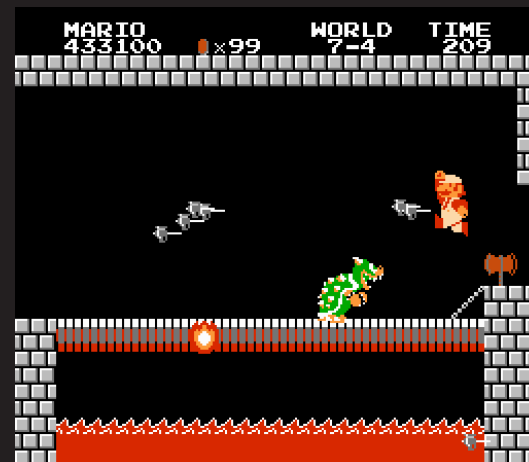
You can't simply breeze through these fragmented segments, though; each one plays a part in the maze design. The level at which you pass through each bit of the maze sections determines your success of failure. And you need to navigate each portion without so much as setting foot in the wrong area lest you be forced to start all over again.

The patterns are pretty simple, really: Top-middle-bottom, then bottom-middle-top. Yeah, it's



actually that easy. But of course, you have to figure that out first, and that can take a while. Thankfully the clock on this stage is pretty generous, so you have time to sort it out... though fire bar spinning in the middle of the narrow platforms that link the two mazes can be a real danger if you let yourself grow impatient as you repeatedly fail the maze.

In the end, you face off against another Fake Bowser. This one chucks hammers again, but instead of cramping your jumps with a low-hanging wall he instead lets a Podooboo do the dirty work. It's timed so that you'll almost certainly smash into it if you just take a running jump to try and get past Bowser. So this time you need to work your way between both Bowser's hammers and the leaping Podooboo. You know—just in case the past few levels weren't difficult enough. His magic destroyed with fire, World 7-4's Bowser reveals himself to be a Hammer Bro.

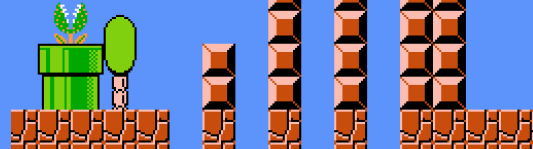




While not a difficult world in terms of design (outside of a few nasty jumps), World 8-1 does its best to unnervе you into playing sloppily by giving you entirely too little time to complete the stage at a reasonable pace.

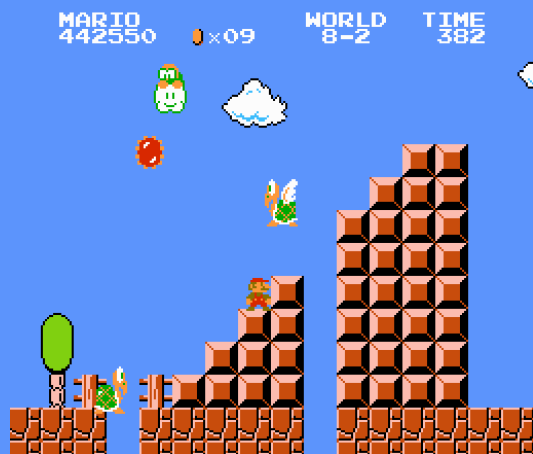
Compared to some of the more recent World x-1s, 8-1 plays it pretty tame. The predominant enemies here are Koopa Troopas and Goombas, with a liberal sprinkling of Piranha Plants in the pipes and a handful of Buzzy Beetles and Koopa Paratroopas to deal with. If World 8-1 gave you, say, 400 ticks on the clock, it would be a breeze: You could play cautiously and ease your way through the whole thing without breaking a sweat.

But World 8-1 isn't about going easy on you. It's about breaking you over its knee. It's about giving you a fraction of the ideal completion time to work with and forcing you to rush through the level. It's about filling the stage with all kinds of nasty little setups that wouldn't be much threat to someone navigating with caution, but which will definitely catch you off-guard as you sprint to beat the clock.



This level's favorite trick is to break open the ground, dotting the landscape ahead of you with narrow pits. For the most part, these are single-block pits, which means you can run right over them. But these pits are often patrolled by inconveniently placed Koopas—either bounding Paratroopas that bounce into you as you run over the gaps, or else wandering Koopa Troopas that patrol the ground on the far side of the pits. These have a tendency to show up just as you relax slightly at having made it over the holes safely, creating an obstacle right where you least expect it.

The presence of so many single-block gaps mixed with occasional larger ones requires deft mastery of Mario's running abilities. Not just running, but knowing when to alternate—when to switch from a dash to a mere saunter, how to control the arc of Mario's jump and his inertia, and more. Throughout the early stages of the game, *Super Mario Bros.* taught you how to make use of these techniques, and now you're expected to synthesize and apply what you've learned.



WORLD 8-1 WORLD 8-2

If World 8-1 is the advanced class in level mechanics, 8-2 is the graduate course. Almost every nasty trick the game knows shows up here.

The stage begins with a staircase and the appearance of Lakitu, similar to World 6-1, but with a twist: A Koopa Paratrooper bounces down the stairs toward you. Also, the stairs are broken up with by gaps. You're forced to dodge Spiny eggs and a leaping turtle on uneven ground filled with holes into the void. This single-screen tableau alone is one of the deadliest situations in the entire game to date—and the stage is just beginning.

Beyond here, everything remains on about this level, though it does offer a few saving graces. If you take out Lakitu at the beginning—which isn't hard, since he does appear hovering above a tall staircase, after all—he never really reappears. And secondly, with caution and forethought, you can stay above much of the level's danger by sticking to the raised platforms. World 8-2 is more generous with its clock than World 8-1 was, so you can afford to take your time.

The Bullet Bill pincer setups from World 7-2 fill much of this stage, though they manage to be even more devious than before. In addition to their crossfire layout, they're often accompanied by launchers situated above them on low platforms, leaving you even less room to maneuver.

However, the centerpiece of this level is a crushingly difficult jump. There are no hazards in that segment, no need to rush. An extremely wide gap—far too wide for Mario to jump without running—demands to be cleared. But it's preceded by two smaller gaps and you have only a single block to make the jump from. You can't really dash over the gaps, because a pipe sprouts from the ground immediately before the gap, which means you have to make a small running leap onto a tiny foothold, then jump again immediately. If you can clear this hole, the rest of the level doesn't seem so difficult by comparison.

You'll also encounter a random assortment of Buzzy Beetles hanging out in the spaces between pipes, which are more or less just there to troll and annoy you.

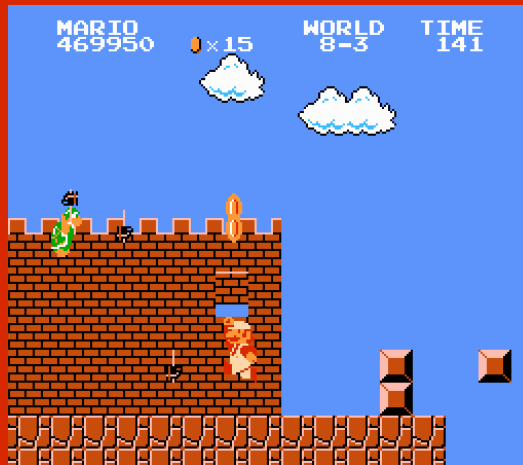


And here you earn your doctorate. World 8-3 is pretty straightforward, both in its design and its intentions. It hates you and wants to crush your soul.

You fight Hammer Bros. here. Not a couple, nor a couple of pair of them; the vast majority of enemies in this stage are Hammer Bros. Backing them up are a ton of Bullet Bill launchers and a handful of Koopas. Make no mistake, though, it's the Hammer Bros. that make this stage the hell that it is. You can tell you're at the perimeter of Bowser's castle here, as the background consists largely of fortress walls and parapets. Also, as I mentioned before, all you fight are Hammer Bros. We're talking "last line of defense" here.

By now you should be familiar with all the Hammer Bros.'s tricks, but that doesn't make them any easier. We're a long way from the mercy invincibility of their debut, and instead you're forced to fight wave after wave of the guys. The first two pairs appear in their basic setup, leaping between parallel rows of bricks. These two encounters are a mercy, because you can get beneath them pretty easily to knock them out—and once they're gone, you can collect a power-up from the top row of bricks. It's not too difficult, with cautious play, to beef yourself back up to Fiery Mario here.

Admittedly, cautious play isn't exactly a breeze to pull off in this stage. The clock on World 8-3 is pain-



fully limited, so there's not much room for dawdling. The Bullet Bill launchers and Piranha Plants throughout the stage minimize the amount of safe ground you can count on, and when those aren't around you're facing Hammer Bros. There isn't much room to breathe at this point. At least you've left behind the insanely difficult jumps; once you clear the huge pit in World 8-2, the remainder of the game takes place on more stable ground.

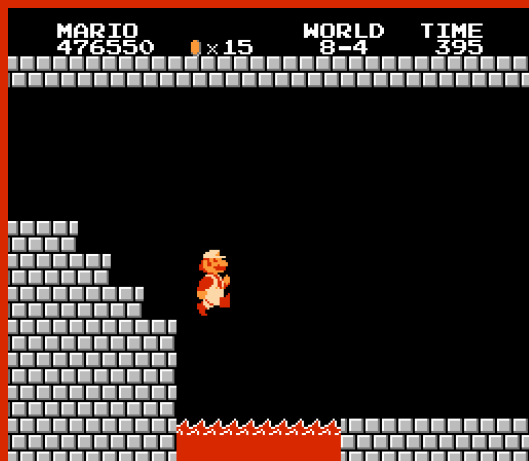
By far the most difficult Hammer Bros. in the entire game are the four that appear in the second half of World 8-3. You've faced one of the Bros. on flat ground before, but never this many in a row. There's no room for error, despite the slightly random nature of their attacks.

The one mercy is that you could potentially have built up to Fiery Mario in the first half of the stage, which trivializes the Hammer Bros.'s attacks—in fact, on flat ground, they're incredibly easy to take out given that they have nowhere to jump to avoid your fireballs.

Realistically, though, actually powering up to that point is pretty tough. This stage is meant to be long and grueling... and also hurried and frantic. And once you've made it through the rain of hammers and bullets, it's just you and Bowser. Well, and a ludicrously involved final stage, but who's counting?

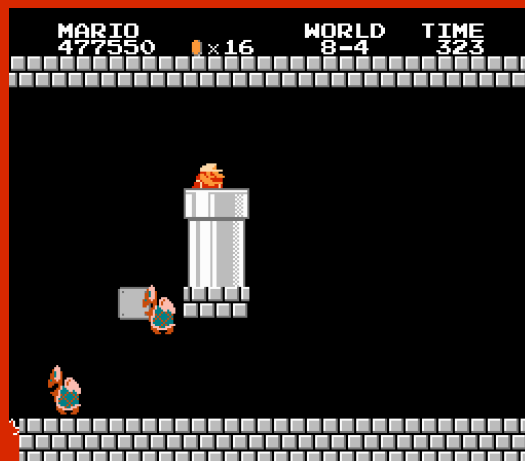


WORLD 8-3



Bowser's castle is different than the other castles. Oh, it looks the same, and it uses a lot of the same tricks you've seen in previous x-4 stages. But this is a challenge on a whole different level from what's come before.

World 8-4 is a huge, complex maze. It makes World 7-4 look like a furtive exercise in apathy. Nothing about this stage offers any quarter, and it gets nasty right from the start by forcing you to leap a chasm of fire from the bottom step of a downward staircase with a low ceiling. Here, even a simple jump has been engineered for maximum danger: The gap is wide enough that you can't clear it with a normal jump, and the ceiling overhead is so low that you have to jump from the bottom



step to prevent hitting your head. So you need to make a running leap with a single block's run-up.

Beyond that, you get your first hint of the pipe maze ahead. The second pipe in the stage lets you warp... and it takes you back one screen, to the first pipe.

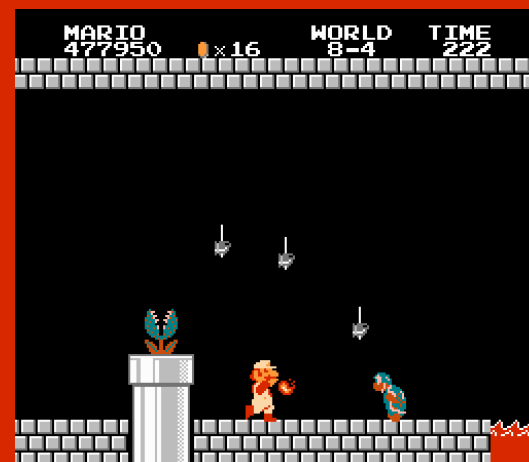
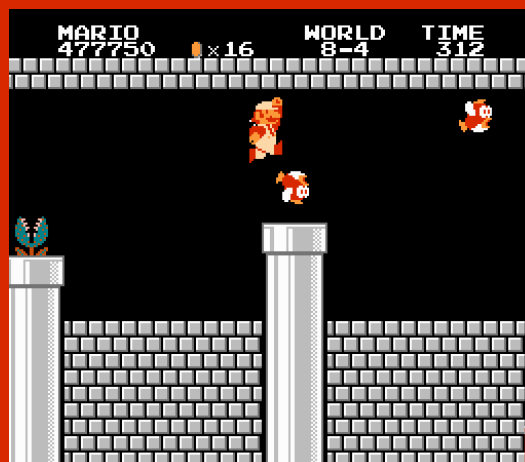
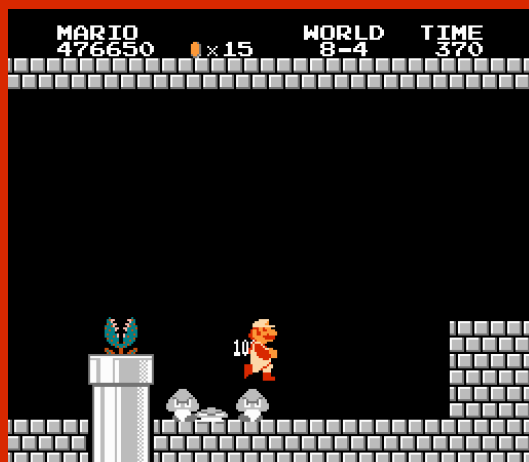
World 8-4 is full of this sort of thing. You can duck into many of the pipes in this stage, but only a few of them lead you forward. The rest set you in a loop—or worse, take you back to the beginning of the stage. There's enough time on the clock to make one or two mistakes, but anything more than that and you're dead.

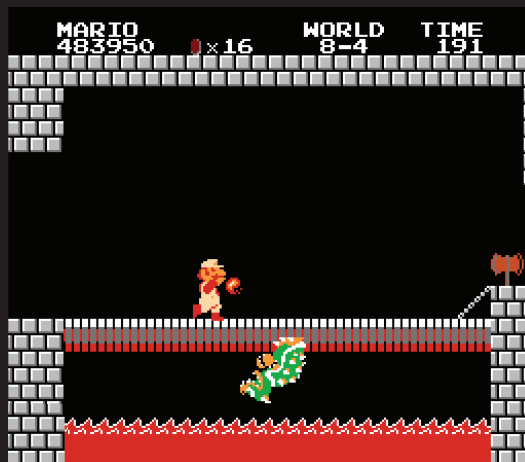
The enemies that appear here are unconventional for a castle stage as well, and will keep you on your toes: Cheep-Cheeps inexplicably come flying out



of the lava, Bloobers show up during a brief underwater jaunt with a strange color palette, Buzzy Beetles, Gloom-bas, and Koopa Paratroopas each make a rare castle appearance, and there's even a Hammer Bro. determined to put a stop to your advance. And no, you can't collect a power-up in this level. If you don't manage to retain a Fire Flower from 8-3 and make it through without a scratch, you have to make it past both the Hammer Bro. and Bowser's respective flurry of hammers in order to claim victory.

Bowser here is the most difficult he's ever been, belching rapid gouts of flame as he leaps and throws hammers. He tosses so many projectiles, in fact, that they tend to flicker out of sight because the poor





NES can't keep up with them.

I'd like to write some stirring proclamation about how this is it, how everything you've learned comes down to this moment, but really aside from the slightly increased vigor of his assault Bowser isn't too terribly different from any encounter you've had before. There are no special techniques or tactics to clearing this battle; you just need to use the same combination of luck, timing, and determination that's gotten you past Bowser every other time.

Really, it's the level itself that represents the culmination of *Super Mario Bros.*'s mechanics and design. But it's not even just 8-4; the whole of World 8 sequentially makes use of the skills you've learned and enemy capabilities you've mastered. From the tricky jumps or World 8-1 to the devious maze of World 8-4, these four stages put the lessons of the first seven

worlds to the test. I don't think the school metaphor is too far off the mark here; *Super Mario Bros.* goes out of its way to instruct you and make certain you make use of and understand its basics before offering advanced techniques, and it gives you ample opportunity to study and respond to the basics of its setup before tossing you into the deep end.

When you defeat Bowser with fireballs this time—and congratulations on that!—the critter that falls into the fire is... well, it's Bowser. This means that, at long last, our princess is not in another castle. After a hard-fought struggle, you've triumphed over 32 stages of increasingly hellish challenges. Nicely done. Now please enjoy the second, more difficult iteration of these levels. Oh, you thought that just because *Super Mario Bros.* offered 32 levels instead of four it wasn't going to do the "second loop" thing?

The second loop of *Super Mario Bros.* starts to get a little silly. For one thing, there's no such thing as a Goomba here; they've all been replaced by Buzzy Beetles. This creates all kinds of bizarre situations where you have kickable enemies in places they were never meant to be—though mostly by bizarre I mean “incredibly dangerous,” as Goombas often haunted narrow passages between walls and pipes. Avoidance rather than squishing becomes the new watch word here; it's generally much smarter to simply dodge the Buzzy Beetles than to set up dangerous cascades of rebounding shells. And yes, World 1-1 teaches you this fact with the opening army of Goombas that now sports a shiny black shell. Even in a second playthrough, *Super Mario Bros.* has lessons to share with you.

An even more significant change comes in the game's speed. Everything in the second loop moves a little faster than it did before, making for a far more strenuous adventure. It's not enough that Buzzy Beetles bear down on you where you used to see Goombas; they're marching toward you at a much fast clip, too.

The levels demonstrate other minor changes, too. Moving platforms become narrower. Bullet Bills fly in from off-screen as early as World 1-3. And, again, the change in enemy rosters introduces surprising new stage dynamics. For instance, when you have infinite Bullet Bills flying in from off-screen, you discover that the free-spawning Bills can interact with other enemies in ways that stand Bills can't, causing Koopas and Buzzy Beetles to change directions (though not the Bills themselves—they're evidently an irresistible force). Why the different types of Bills were programmed with different attributes is a mystery, but it's fascinating to see small details of the game come to light as a result of minor tweaks to its level design and enemy loadout.

Of course, it's not until the sequel—*Super Mario Bros. 2*, aka *The Lost Levels*—that things get really crazy. But that's a story for another volume....

