The main musical theme, or “Ground Theme,” as it is officially known, from 1985’s Nintendo classic, “Super Mario Bros.,” is arguably one of the most recognizable video game themes of all time. Written by resident Nintendo composer Koji Kondo, the theme stands as an early example of the successful marriage of graphics and sound that continue to transport video game enthusiasts to another world. With its jaunty rhythm and catchy melody, the “Ground Theme” is the perfect complement to the side-scrolling adventures of Mario and Luigi, and a testament to Kondo’s ability to achieve musical complexity with limited resources.

From their initial inception, video games incorporated sound effects and music to enhance the gameplay experience. From the audible blips heard when a player makes contact with the ball in “Pong” to “Pac-Man’s” famous “wakka-wakka” sound, early game developers recognized that sound was an integral component of engaging the player by creating a multisensory experience. Many game historians cite 1978’s “Space Invaders” as the first game to use a continuous background soundtrack, comprising four descending notes that increase in tempo as the alien invaders speed their descent towards the hero. As sound chips for arcade and home consoles became more sophisticated, game developers continued to broaden the sonic palette for games released throughout the early 1980s. Inspired by these developments, Koji Kondo built upon the existing framework of video game sound design in an effort to create something altogether more “musical.”

From a very early age, Koji Kondo displayed a passion for music, learning to play the Electone organ in kindergarten, before branching out to play the marimba in his elementary school band. A synthesizer, gifted from his parents while he was still in high school, allowed Kondo to explore his deep interest in employing synthesis to create sound effects. Kondo parlayed his musical abilities into keyboard duties for a cover band during his college years, before answering a recruitment ad for Nintendo right before graduation. The opportunity to join the company’s newly dedicated sound staff allowed Koji Kondo to quickly establish a name for himself by drawing on his musical past, enthusiasm for melody and interest in the confluence of music and technology. In many ways, the “Ground Theme” exists as a perfect distillation of Koji Kondo’s musical development, featuring a tropical influenced, marimba-like melody worked out in advance on a keyboard and reproduced using the sonic language of sound synthesis.
The development of “Super Mario Bros.” began in 1984. Designed as a sequel to 1983’s popular arcade platformer, “Mario Bros.,” game designers Shigeru Miyamoto and Takashi Tezuka utilized the fast-paced side scrolling action of game titles such as “Excitebike” and “Kung Fu” to expand upon the world building that began with Mario’s first appearance in the video game canon, 1981’s “Donkey Kong.” The game focuses on the titular heroic plumber brothers, Mario and Luigi, as they traverse the Mushroom Kingdom in an effort to rescue Princess Peach from the clutches of Bowser, the evil King of the turtle-like Koopas. One unique aspect of the game involves allowing the characters to traverse through various overworlds and underworlds, accessible via the series of pipes that dot the landscape throughout the game. These different world environments allowed Koji Kondo the freedom to create unique musical motifs to suit the mood of each. The “Ground Theme” that accompanies the overworld levels perfectly captures the positivity of the blue sky and sunny environs of the Mushroom Kingdom, while the subterranean “Underworld Theme” captures a darker, more sinister tone, matching the visual aesthetic of these levels.

The score of “Super Mario Bros.” stands as one of Koji Kondo’s proudest musical moments in a career that has spanned decades, perhaps due in part to the fact that developing and creating the music provided Kondo an early opportunity to put into practice his two overarching compositional philosophies, specifically “to convey an unambiguous sonic image of the game world,” and “to enhance the emotional and physical experience of the gamer.” The “Ground Theme” accomplishes both of these aesthetic and sonic goals admirably, at once standing as the perfect complement to the colorful world and frenetic action presented on screen and establishing the rhythm and tempo that lays the foundation for the player’s kinetic interactivity with the controller and, thus, the gameplay.

Perhaps the most impressive fact to consider when evaluating the “Ground Theme” from a musical standpoint is its relative complexity, particularly given the limited palette of sounds available via the early sound chip that shipped with Nintendo’s Famicom and Nintendo Entertainment System platforms. Kondo was essentially working only with four channels to create this work: two pulse-wave channels, a triangle-wave channel and a noise channel. Kondo worked out the melody in advance and then programmed the notes for each channel into the computer. By combining his musical theory background with the technical skills that he quickly acquired as a Nintendo employee, Kondo was able to communicate his musical ideas in captivating ways, alternating melodies between the three “melodic” channels and employing the noise channel to create driving rhythmic variation.

It is interesting to view the “Ground Theme” in the context of other popular Japanese musical idioms of the early to mid-1980s. Its tropical flavored melody and rhythm, as expressed through synthesized means, certainly seem related in some way to popular Japanese artists such as Yellow Magic Orchestra, who employed synthesizers and drum machines to reinterpret “exotica” music and whose first album featured a song entitled “Computer Game.” The burgeoning genre of “City pop,” which peaked in popularity in Japan during the early 1980s, also had roots in Latin and Caribbean music, in addition to disco and funk, with a strong emphasis on synthesizers. Kondo himself, in a 2001 interview, cited jazz musician Sadao Watanabe and fusion band T-SQUARE as potential influences on the “Super Mario Bros.” “Ground Theme.” Influences aside, it is clear that Kondo was successful in distilling a particular tone and feeling
using the tools available to him at the time, creating a catchy and memorable tune that would stand the test of time and go on to influence its own musical genres and artistic conventions.

The rise in popularity in “chiptune” music, particularly in the last century, can be traced back to the early musical experiments and groundbreaking techniques developed by Koji Kondo and other pioneers who sought innovative approaches to composing and arranging music using video game hardware. On the other side of the coin, it has been equally fascinating to see Kondo’s “Ground Theme” and scores for such popular games as “The Legend of Zelda,” reimagined in an orchestral context by the likes of the London Symphony Orchestra. These performances display the complexity and nuance of Kondo’s musical themes by recontextualizing them for live instrumentation.

For many children of the 1980s (this author included), the opening notes of the “Super Mario Bros.” “Ground Theme” served as an introduction to the musical world of Nintendo, given that the game was included with a purchase of the Nintendo Entertainment System by 1988. The first six notes that greet the player upon starting the game immediately set the mood for this thrilling home-gaming experience. As Mario and Luigi’s universe has continued to expand, the “Ground Theme” stands as an early testament to the power of video game music to inspire, captivate and excite.

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