The Legend of Zelda: The Wind Waker

From Videogame to Virtual Playground and Beyond

Honors Thesis for the Interdisciplinary Studies in Humanities
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To my parents, for everything

Contents

Screenshots on front and pages 7, 86 are from *The Legend of Zelda: The Wind Waker* (Nintendo, 2002)
Unless otherwise noted, all screenshots were taken by the author. Thanks to Travis Skare for the tech support.

Acknowledgements

This story behind this thesis begins four years ago. My sophomore year, I was a budding "techie" deciding between majors in Biology and Computer Science. Then, in Winter 2003, I happened to take a class called "The History of Computer Game Design." For my final paper, I wrote a case study of *Super Mario 64* entitled "Playgrounds for the Digital Age." In the process, I not only rediscovered my "fuzzy" side, but also got myself invited to Henry Lowood's How They Got Game research group. After working with Henry on the "Fictional Worlds, Virtual Experiences" exhibit for the Cantor Arts Museum, I switched my major to a self-designed Digital Humanities track.

Happily, this story does not end with this thesis. Next year I will be taking Game Studies classes at IT University in Copenhagen on a Fulbright Scholarship, after which I plan to pursue a PhD in Digital Media.

In short, my life would be very different if it were not for Henry. More than just setting me on the Game Studies path, Henry has been the best advisor imaginable. I owe too much to Henry to list everything here, but highlights include advice on graduate schools, insightful thesis feedback, Friday lunches, letters of recommendation, prompt responses to all my emails, reading suggestions, six units worth of independent study, and that time he pwn3d me at *Warcraft III*. For his wisdom, patience, and encouragement, my heartfelt thanks.

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A storm that needed a mountain
met it where we were:
we woke up in a gale
that was reasoning with our tent,
and all the persuaded snow
streaked along, guessing the ground.

We turned from that curtain, down.
But sometime we will turn
back to the curtain and go
by plan through an unplanned storm,
disappearing into the cold,
meanings in search of a world.

– William Stafford, “Found in a Storm”

I. Introduction

> "*Critics of virtual reality warn that technology-based 'psychedelics' will produce a disembodied race, a culture that ceases to value the body, nature, or physical reality in general because the alternative will be so persuasive. I believe that the reverse is true.*"[1]
>
> **–** Brenda Laurel, *Computers as Theatre*

One of the thrills of growing up in a New Jersey suburb were the "snow days" that winter would inevitably bring. These were days in which school would be cancelled due to icy road conditions and snow accumulation – glorious days, in the eyes of a pre-adolescent kid.

Back then, I developed a seemingly odd tradition for those quiet, snowy mornings. Before the family had the chance to roll out of bed, I would sneak into the living room, take a few minutes to stare out the window into a pristinely white backyard… and then turn on the Super Nintendo. Specifically, I would load up *Donkey Kong Country* and play two levels of "Gorilla Glacier" (the obligatory ice world). The first level, "Snow Barrel Blast," boasted an impressive digital environment for its time; the level's weather conditions, which began as clear blue skies, gradually metamorphosed into a raging blizzard. The second level, "Slipslide Ride," was a crystalline ice cave that seemed to sing the spirits of an exhilarating sleigh ride. Afterwards, of course, I would spend the day with my neighborhood friends outside in the snow. The tradition continued well into the Nintendo 64 era, when I had all but forgotten about my Super Nintendo.

The point here is not nostalgia for older days or *Donkey Kong Country* itself. Rather, I want to illuminate just *why* I repeatedly revisited those levels. Contrary to the stereotype of videogames as a purely escapist pursuit, I was visiting those virtual worlds

to *heighten my experience of the "real" world*. Through those two levels, simple as they were, I found a certain unique essence of experience and place; an essence that I internalized in order to inform and enrich my own snowy backyard adventures.

This thesis aims to characterize that very experience, an experience that many gamers enjoy on a regular basis: the sensation of presence afforded by digital places. In short, I mean to investigate the evolution, design, and possibilities of virtual worlds.

As a focal point for investigation, I anchor my analysis on Nintendo's *The Legend of Zelda: The Wind Waker*. Admittedly, no single videogame can offer an accurate portrayal of the entire medium. Different videogames display a wide variety of styles, genres, and purposes that cannot be pigeonholed. Nevertheless, given the tangled, highly interdisciplinary web of issues in Game Studies, a central example provides a useful jumping off point. As Barry Atkins has argued, an analysis of particulars avoids "the trap of writing in vague and general terms about the computer game in the abstract."[2] For the purposes of this thesis, *Wind Waker* serves as an excellent such example.

Released for the Nintendo Game Cube in 2003, *Wind Waker* is one of the latest additions to the blockbuster fantasy adventure franchise *Zelda*. Since its 1987 inception in Japan, the best-selling *Zelda* series has not only become a household name worldwide, but has also influenced the development of the medium. Praised for its immersive, expansive virtual worlds, the *Zelda* series serves as a key reference point in discussions about open-ended videogame worlds.

As one of the more recent *Zelda* titles, *Wind Waker* stands as testament to the radical changes that videogame worlds have undergone over the last twenty years. In one sense, this maturation is hardly surprising given the dramatic reshaping of the industry.

Technological innovations and ballooning development budgets have inevitably led games towards better graphics, higher quality sound, more ambitious stories, and larger gameworlds. But apart from these more obvious changes, the *Zelda* series has gradually approached Shigeru Miyamoto's long-held vision of videogames as playgrounds. Although Miyamoto, the creative mastermind behind the *Mario* and *Zelda* franchises, excels at creating such playground worlds, this trend is not limited to Nintendo. Storytelling, level goals, and hand-eye coordination challenges aside, the virtual worlds of videogames are increasingly rewarding to simply explore, interact with, and exist within, in terms of both entertainment and artistic value.

In order to contextualize *Wind Waker* and the design of its virtual world, this thesis follows the evolution of the *Zelda* series over two decades. I highlight specific design philosophies and game features – especially in contrast with Miyamoto's *Mario* franchise – that contribute to the series' focus on virtual environment. In particular, I discuss the jump to three-dimensional graphics, as well as the decision to use a "third-person" view. I then concentrate on *Wind Waker*, examining its virtual world as a space for exploration, open-ended play, and dramatic action. Finally, I argue that the playground metaphor of virtual space is ultimately inadequate for facilitating a more rewarding experience of presence.

II. Terminology: Place, Presence, Videogames

In this thesis, I write about both *space* and *place*. Historically, the two terms have been used quite differently. In the architectural tradition, place is type of space endowed with human meaning. Kevin Lynch, for example, explains that a space "becomes a true place" when the inhabitant "informs it with his own meanings and connections."[3] By contrast, philosophers like Michel de Certeau and Maurice Merleau-Ponty have used the terms in the reverse. For Merleau-Ponty, place is purely geometrical whereas space results from human experience. This classification led de Certeau to declare, "space is a practiced place."[4] In lieu of these contested definitions, I use the terms more colloquially. I intend place to signify a specific instance of inhabited space.

Throughout this thesis, I also make claims about the sensation of *presence*. Presence is a vague and contested term. As Alison McMahan has pointed out, the lack of an accepted definition has resulted in confusion with related concepts like engagement and immersion. Moreover, the feeling of presence has been notoriously difficult to characterize. Social scientists, for instance, routinely divide the broader notion of presence into several subtypes. For the sake of simplicity, I use the term presence without any qualifying adjective. However, the specific sensation that I mean to describe can more accurately be called *environmental presence*: roughly speaking, the experience of physical place (or in this case, virtually physical place), both perceptual and psychological.

Presence can be understood most generally as the "feeling of being there."[5] In an extensive literature review of the term, Communications researcher Kwan Min Lee proposes that presence be defined as "a psychological state in which virtual objects are experienced as actual objects in either sensory or nonsensory ways."[6] Lee identifies three

types of presence: physical ("virtual physical objects are experienced as actual physical objects"), social ("virtual social actors are experienced as actual actors"), and self ("virtual self/selves are experienced as the actual self").[7] In practice, the feeling of presence usually exists as some mix of all three.

Lee distinguishes presence from the more specific notion of *telepresence*: "a sense of transportation to a space created by technology."[8] As Lee points out, presence-related phenomena, such as social presence, "do not necessarily include the feeling of transportation into a physically visualized virtual environment."[9] That feeling of transportation, however, is central to the notion of environmental presence. As such, I see telepresence as a closer approximation of environmental presence than any of Lee's subtypes. Moreover, Lee tends to frame presence as an absence – "a psychological state in which the virtuality of experience is unnoticed."[10] But sense of place is not merely an "illusion" of nonmediation; it also relies on a construction of personal linkages (both perceptual and psychological) to the physical environment.

Previously, the term *environmental presence* has also been used to describe "the extent to which the environment itself appears to know your existence and react to you."[11] Though such a definition underscores the critical role that interaction plays in generating sense of place, it misses both the physical and personal dimensions of the specific sensation that I am considering.

Finally, I should qualify my usage of the term *videogames*. Traditionally, the term has been used to refer exclusively to games made for proprietary console systems such as the Atari, Nintendo 64, and Playstation. However, in this thesis I use the term videogames to signify both console and computer games.

III. Early History of the *Zelda* Series

"*I think great video games are like favorite playgrounds, places you become attached to and go back to again and again. Wouldn't it be great to have a whole drawer full of 'playgrounds' right at your finger tips?*"[12]

– Shigeru Miyamoto, 1991

The original *Legend of Zelda* was by no means the first videogame to focus on exploration. As early as the 1970's, text-based computer adventure games such as Will Crowther's *Adventure* and Infocom's *Zork* provided digital spaces in which exploration was not just encouraged, but comprised the central game mechanic. *Adventure* was even based (sometimes literally) on Crowther's own spelunking experiences in the Mammoth and Flint Ridge cave systems. However, the text-only representation gave such games a distinct literary feel, rather than a visceral, more physicalized sense of body and space. Moreover, access to these games was limited to academic and engineering circles.

By the mid 1980's, most mainstream games – and almost all arcade and console games – were closer in kin to sport-like contests, played against the computer, against time, or against another player. Videogames of the time, rooted in the coin-op tradition of arcade games like *Pong* and *Space Invaders*, more often than not relied on the addictiveness and partial reinforcement of endurance tests (how long could the player survive?) and high scores (how well could the player perform?).[13] In short, many games were primarily casual, "single-serving affairs."[14]

Following the 1985 Japanese debut of the Famicom (released one year later in the United States as the "Nintendo Entertainment System"), home videogame entertainment regained popularity lost during the 1982-83 collapse of the Atari generation of consoles.

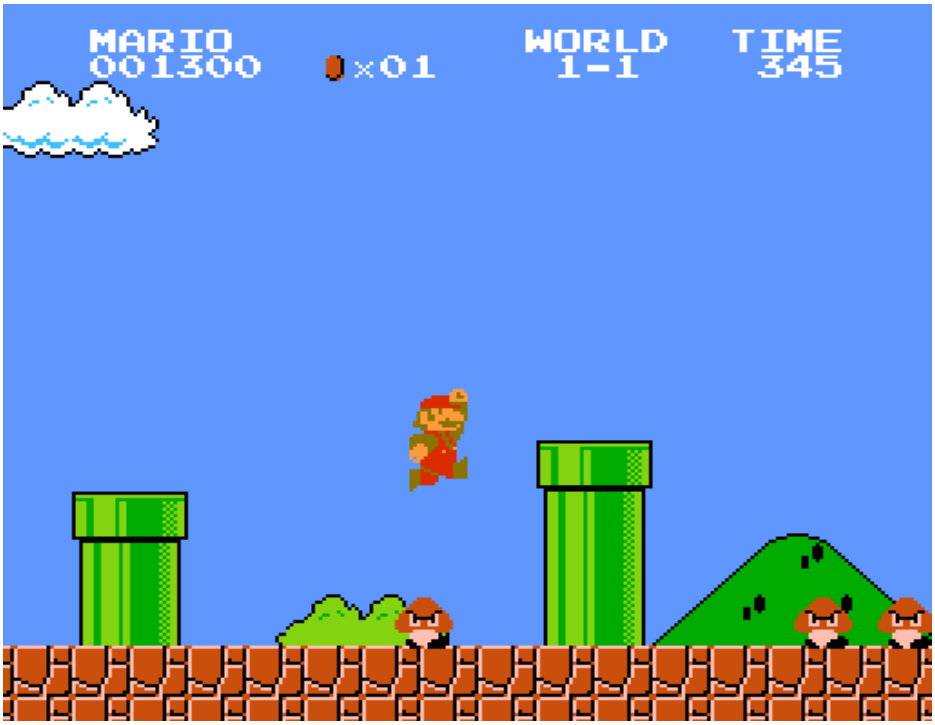

Figure 1 – *Super Mario Bros.* (Nintendo, 1985)

With Miyamoto leading the charge, game design evolved to take advantage of the less frenetic, more private nature of the home environment (as compared to the arcade atmosphere). Nintendo's earliest blockbuster hit for the system, *Super Mario Bros.*, shifted the focus away from competitive gameplay. Instead, players assumed the roles of two unlikely plumber heroes, running and jumping their way through a series of colorful, surreal environments (termed "levels") in order to rescue the ever-elusive Princess Toadstool. The game did tally point totals, but most players ignored their score and instead focused on the mere act of completion (how many levels could the player beat?). In essence, Nintendo was beginning to move gameplay away from pure performance and towards the navigation of virtual space.

Miyamoto's *The Legend of Zelda*, released in 1987, marks an even more dramatic departure from other console games of the time. Selling 6.5 million copies[15], the game

enjoyed worldwide success, and is often lauded as a major influence on the subsequent development of videogame design. Players controlled the green-clad, sword-wielding hero Link in a quest to reassemble the Triforce of Wisdom and save Princess Zelda from the evil wizard Ganon. Link's "life" was represented by a number of hearts that could be lost upon harmful enemy contact. Players could find or buy more hearts to replenish health, but Link died (that is, gameplay stopped) if all his hearts were depleted. There were no "extra lives" à la *Pacman* or *Super Mario Bros*.

Like all its sequels since, *The Legend of Zelda* forsook the traditional level model, and instead required players to explore the continuous "overworld" of Hyrule. Armed with a variety of weapons and tools, Link had to seek out and defeat a series of labyrinthine dungeons. In addition to the dungeon entrances, which were carefully hidden around the overworld, players needed to find a variety of special items and "power-ups" that aided Link on his quest. Due to the world's sheer size (for its time, the overworld was huge), exploring Hyrule comprised the vast majority of gameplay. A *Gamespot* history of the *Zelda* series reminisces, "Before its release, gamers had never seen an action title with such a nonlinear, detailed, and expansive world."[16] In fact, the size of Hyrule was arguably twofold: upon finishing the game, players were treated to a more difficult second quest in which brand new dungeons were hidden in different locations.

It is important to note how radically different Miyamoto's Hyrule was from the discrete stages of *Super Mario Bros.* Disjointed by end-of-level celebrations and checkpoints, the separated environments of *Super Mario Bros.* functioned more as one-use obstacle courses. The game offered little encouragement to wander around and enjoy the worlds simply for themselves. Quite the opposite, players were pressured with a time limit in which to complete each level. The goal of level completion was prioritized over everything else.

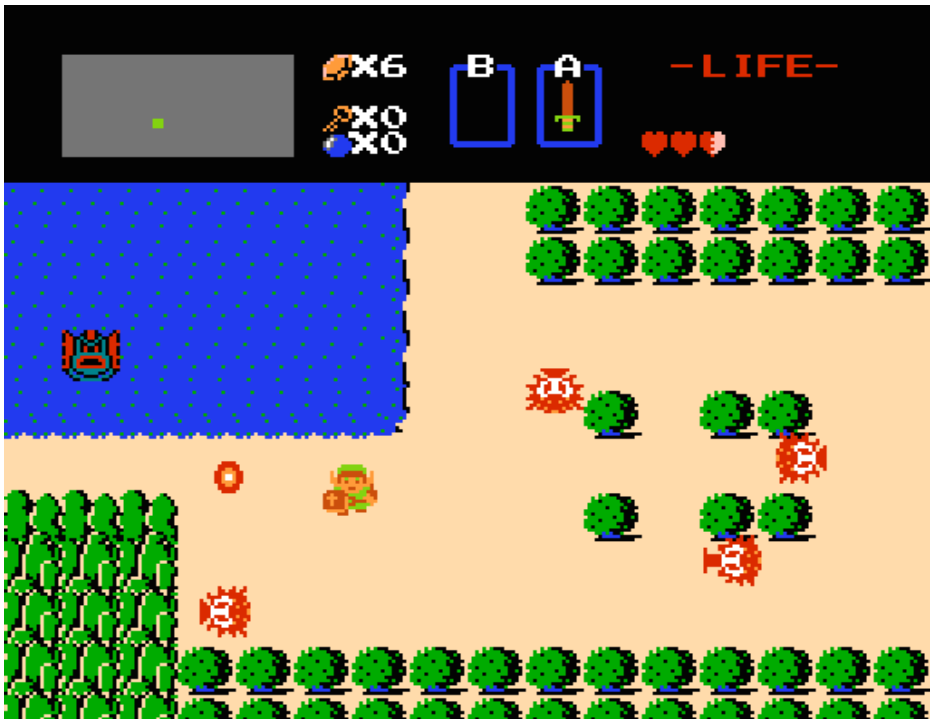

Figure 2 – *The Legend of Zelda* (Nintendo, 1986)

By contrast, *The Legend of Zelda* boasted an unprecedented degree of environmental continuity. Although the overworld was technically divided into 128 separate rectangular "screens" in a sixteen by eight grid, the different areas transitioned smoothly into each other, fitting together like puzzle pieces in the larger Hyrule map. This two-dimensional, nonlinear world was viewed through the game's overhead "three-quarters perspective" hybrid view. Players looked down and towards the world from a fixed distance, which provided some profile detail of Link, the landscape, and its inhabitants. But because the view was largely overhead, players were able to move Link across the planar world in any direction they chose, and accessed adjacent areas by moving across the northern, southern, eastern, and western edges.

The world of *Super Mario Bros.* seems almost one-dimensional by comparison. The clear trajectory of Mario's (and his co-protagonist brother Luigi's) motion was

linearly forward. Although Mario could theoretically move vertically by jumping, his freedom of motion was severely constrained by simulated gravity and the placement of platforms. Mario was not even allowed to run backwards past the left edge of the screen, which meant that players were prevented from retracing their steps within a level. This linearity also manifested itself in the way players progressed from level to level, since Mario could not return to previously beaten worlds. Players would certainly end up replaying levels upon dying or restarting, but these visits occurred in separate, disassociated attempts. At best, Mario could skip forward in the chain of levels by finding special warp zones. The notion that players might even want to revisit completed levels would have seemed somewhat absurd: the point of *Super Mario Bros.* was to survive, conquer the coming challenges, and move on.

Figure 3 – Mario uncovers one of several secret warp zones. Warping allowed players to skip past large sections of the game. (*Super Mario Bros.*, Nintendo, 1986)

The Legend of Zelda transcended this quality of disposability, precisely because its areas interconnected to form one unified mega-environment. In the absence of any time limit, players could wander Hyrule on their own terms. The game *required* Link to explore and re-explore each area, whether in search of dungeon entrances and items, or simply passing through while trekking across the gameworld. Even in the maze-like, significantly less open-ended dungeons, players were forced to retrace multiple paths. In addition, *The Legend of Zelda* abandoned the notion of "multiple games" almost entirely. The *Zelda* game cartridge introduced a battery backup feature that allowed players to save their progress and resume their quest in the next play session. "Dying" now signified a minor setback rather than an unambiguous "game over." Effectively, the save mechanism shifted the gameplay balance from performance to exploration and character development.

In many ways, the 1988 sequel *Zelda II: The Adventure of Link* signified a step back towards the action-first design of *Super Mario Bros.* Despite a handful of small design changes clearly derived from traditional role-playing games (RPGs), players once again navigated Link through Hyrule in search of palace-dungeons. But this time around, the overworld was presented in a more map-like top-down view. Although it was no longer broken into discrete screens (the view panned slowly along with the player), the new overworld lacked the interactive potential of its predecessor. Instead, much of the action and exploration had been abstracted into a secondary sidescrolling mode. Towns, dungeons, caves, and battle sequences were now rendered in an entirely separate, profile perspective and with different artwork. The sequel was first and foremost a *Zelda* game, but the new sidescrolling view channeled the jump-intensive "platformer" spirit of *Super*

Figure 4 – *Zelda II: The Adventure of Link* (Nintendo, 1987)

Mario Bros. Gameplay constantly switched between the two modes, and many gamers criticized this somewhat schizophrenic duality of rendered views as interfering with the world's immersive pull.

The Legend of Zelda: A Link To The Past, released in 1992 alongside the debut of the Super Nintendo Entertainment System (SNES), heralded the return of the overhead three-quarters perspective. This third installment did not radically depart from its predecessors, but the game did reinvigorate the exploratory vibe of the original *Zelda* title. The SNES incarnation introduced multilevel spaces, allowing Link to climb up stairs and fall through holes. Players now had to "keep a constant mental blueprint of how the floors were related,"[17] intensifying the focus on spatiality and virtual place.

Spatial multidimensionality extended to the overworld, too. Hyrule was linked to a parallel "dark world," and Link could travel between the two dimensions by using a

Figure 5 – *The Legend of Zelda: A Link to the Past* (Nintendo, 1991)

magic mirror in the correct places. On more than a few occasions, the game required the player to cleverly use such interdimensional travel in order to overcome certain obstacles. As Gamespot summarizes, "To solve the game's mysteries, you had to visualize both realms simultaneously, understanding their interplay, overlap, and the passages between them."[18] This interplay of environments forced players not only to move through virtual space, but also to grapple with it.

In just a half-decade, Nintendo's *Zelda* had grown into a full-fledged cultural force. The franchise had spawned a regular TV cartoon (joined with the *Super Mario Bros.* show), merchandise, and even a breakfast cereal. Nevertheless, fans would have to wait a full five years for the next *Zelda* title. Miyamoto has always prioritized originality over sheer productivity and he was concentrating his efforts on the coming Nintendo 64 and the host of technological and gameplay innovations it would bring.

IV. Nintendo's Jump to 3D

"*Some of these efforts have resulted in exciting new game 'breeds' that engage the player in an experience that is all but impossible without 3D technology. Witness Mario's jump to the 3D world in Shigeru Miyamoto's* Super Mario 64."[19]

– Richard Rouse III, "Do Computer Games Need to be 3D?"

For the *Zelda* series, that highly anticipated innovation – 3D graphics – would eventually arrive with the historically important 1998 release of *The Legend of Zelda: The Ocarina of Time* (also known as *OOT* and *Zelda 64*). But in order to understand the significance of this major transition, we must first look at Miyamoto's first fully 3D project, *Super Mario 64*. Developed in parallel, *Ocarina of Time* inherited much of its general design from Mario's landmark 3D debut.

Super Mario 64 was released in the summer of 1996 alongside Nintendo's new cartridge-based console system, the Nintendo 64. The basic premise remained the same: Mario was charged with the task of saving Princess Toadstool from arch-nemesis King Bowser and his minions. As in earlier adventures, Mario traveled through a variety of colorful worlds filled with dangerous obstacles and peculiar enemies, armed with little more than his agility and an arsenal of different jumps. However, the new 3D presentation of Mario and his world altered the very nature of the series' traditional jump-laden "platformer" action. Technically speaking, 3D graphics use three-dimensional models to give an illusion of spatial depth on a two-dimensional screen display. But more than simply revolutionizing the aesthetic "look" of the game, the third dimension added a definitively new spin to control mechanics, level design, and the basic ebb and flow of gameplay. *Mario 64* maintained a strong, distinctly "Mario" flavor, but it seems questionable whether to call the game a true sequel.

Figure 6 – *Super Mario 64* (Nintendo, 1996)

Three-dimensional space enriched the series' previously constrained gameplay with a hitherto unattained degree of nonlinearity. Levels could not simply be "beaten." Rather, Mario had to collect a certain number of hidden stars in order to guide his passage through the main castle. This emphasis on collection over completion, which required players to explore each world multiple times in order to find enough stars, prioritized the process of discovery. Furthermore, levels were no longer accessed in strict sequential order, but were instead linked through portals in a central "hub" world (Princess Toadstool's Castle) that Mario frequently revisited. Players could now choose, to a large extent, the order of worlds they entered.

In a limited sense, *Super Mario Bros. 3* and *Super Mario World* also allowed players some control over the ordering of levels. But both games, much like *Zelda II*, were forced to awkwardly juxtapose the classic sidescroller profile perspective with a completely different top-down view for the hub world. In *Mario 64*, both level and hub

Figure 7 – To travel between worlds, Mario jumped in and out of magical paintings. (*Super Mario 64*, Nintendo, 1996)

world were rendered in the same 3D perspective. This continuity of space made the gameworld seem all the more expansive and therefore open-ended. The pipe-based travel of the 2D predecessors took Mario off the screen; the portal-based travel of *Mario 64* had Mario jump *into* the screen

Thus, much of the game's immersive charm stemmed from the fact that *Super Mario 64* was fully three-dimensional. Many popular games of the early 1990's, including the wildly successful CD-ROM game *Myst*, approximated the 3D aesthetic by rendering static images from 3D models. However, as Rouse points out, such games were not experienced as fully 3D.[20] Their static images were ultimately just that – predetermined views that could only be approached from certain angles. Still other games provided full 3D objects and worlds, yet only let players interact in limited ways. Miyamoto's own *Star Fox* (1993), for example, allowed players to pilot a polygonally modeled 3D starship, but only in fixed corridors of space.

The fully 3D worlds of *Super Mario 64*, by contrast, seemed almost limitless. As game review site IGN raved in its initial review, "this game is exactly as one might hope it would be: Mario in 3D. More freedom, more space, more options."[21] No longer as constrained by specific, predefined paths, players were given much greater autonomy in the navigation of virtual space. Mario could now approach characters, objects, and scenery from arbitrary angles, as well as venture to almost any space in sight, be it the castle moat or a distant mountaintop. This newfound freedom gave players a more personalized, memorable experience of presence.

Beyond just the *Mario* franchise itself, *Super Mario 64* had a lasting impact on 3D game design. IGN went as far as to declare, "It must be stated that *Super Mario 64* is the greatest videogame to date, and one [against] which all games, regardless of genre, will be judged henceforth."[22] This is not to suggest that *Mario 64* was the first, or even most important 3D videogame. First-person "shooter" classics like *Wolfenstein 3D* and id Software's *Doom* had pioneered commercial 3D technology several years before. As early as 1980, Atari's *Battlezone* tank simulation had rendered interactive 3D environments using rudimentary vector graphics. Nor did *Super Mario 64* necessarily stand alone in 1996. Several influential 3D games – including id Software's new shooter *Quake* and Eidos' third-person adventure game *Tomb Raider* – were released around the same time. Nevertheless, *Super Mario 64* did play a leading role in introducing rich, user-friendly 3D worlds to the console mainstream. It demonstrated that such technology could potentially revitalize older gameplay ideas. As id's own cofounder Tom Hall remarked, "The next big thing will be applying the new, hot 3D technology to older genres and breathe new life into them. *Super Mario 64* is really incredible, what I've played so far."[23]

V. Poetic Experience of Space and *Ocarina of Time*

"*As has been made abundantly clear in the mid-to late 1990's by the industry's numerous abortive attempts to convert old two-dimensional game paradigms into 3D space, videogame possibilities often depend totally on the form of representation chosen.*"[24]

– Steven Poole, *Trigger Happy*

At least in terms of 3D design, *Mario 64* undoubtedly laid the groundwork for the release of *Ocarina of Time* two years later. *Ocarina of Time* may have used a heavily modified, almost unrecognizable version of the *Mario 64* 3D engine, but its fundamental approach to world design and control mechanics followed clear precedent. Especially after the success of Eidos' 3D adventure hit *Tomb Raider*, many players were well accustomed to the third-person perspective and the practice of manual camera control.

But even in 1998, *Ocarina of Time* hardly seemed passé. On the contrary, it debuted to unprecedented critical acclaim. Popular game review magazines and sites showered the title with perfect scores, frequently dropping superlatives such as "Game of the Millennium."[25] To this day, the game is still singled out as one of the medium's defining moments. IGN, for example, recently ranked *Ocarina of Time* among the top three "best" games of all time.[26] *Ocarina of Time* followed the classic *Zelda* gameplay formula, except this time in an expansive 3D world. New features included a more involved (but still simplistic) plot, a horse (Epona) that players could ride around the overworld, and a magical ocarina on which Link played special songs that aided him on his quest. Using the ocarina, Link could time travel between the current time (his childhood) and a potential dystopian future (his adulthood). The interplay between the

two worlds required some inventive problem solving, reemphasizing the series' focus on virtual environment.

Yet despite all the talk of "revolution," the transition of the *Zelda* series into 3D represented a qualitatively different upheaval than that of the *Mario* series. *Mario 64*, which transformed a largely one-dimensional platformer into an open-ended 3D world, marked a shift between polar extremes. The *Zelda* series, on the other hand, had championed nonlinearity from the very beginning. Strictly speaking, the explorability and navigational freedom of *Ocarina of Time* signified nothing new for the franchise.

Rather, the fresh new atmosphere of *Ocarina of Time* lay in the immersive pull inherent to its three dimensions. Because we perceive the natural world in three dimensions, 3D virtual environments more closely draw upon our everyday experiences, and therefore engender a keener feeling of presence. Like the action-heavy *Mario 64*,

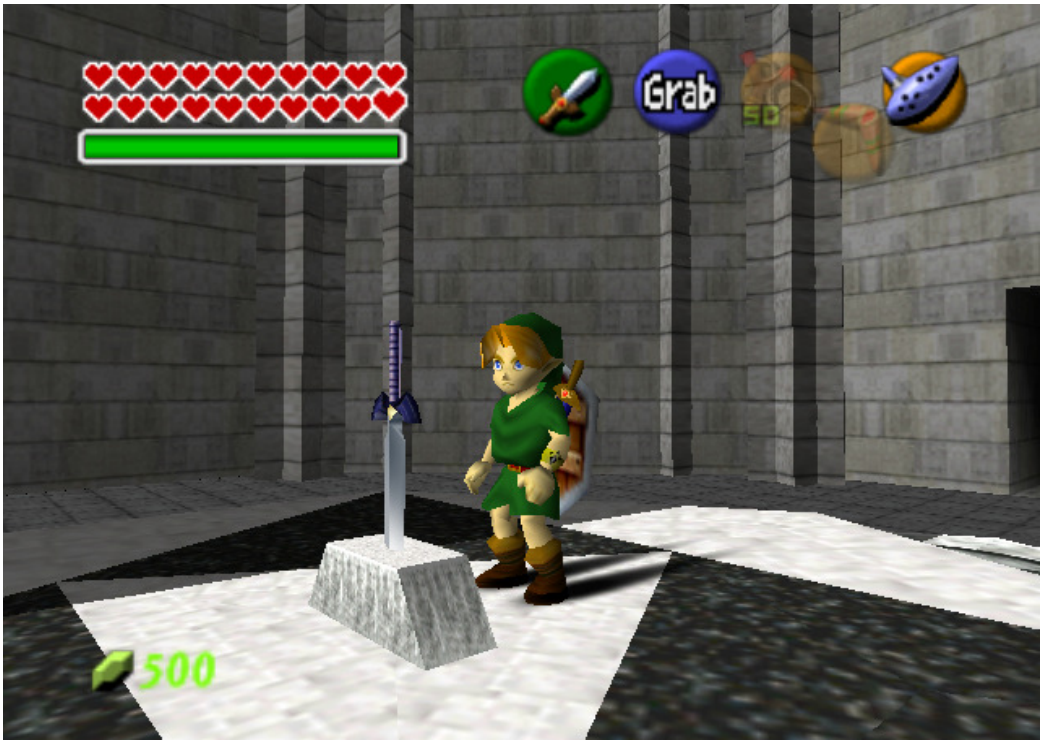

Figure 8 – *The Legend of Zelda: Ocarina of Time* (Nintendo, 1998)

Ocarina of Time relied on the visceral qualities of 3D to convey a sense of body in space. However, the game also placed a special premium on capturing the experiential intricacies of the virtual environments themselves. Compared with its 2D predecessors – and even *Mario 64* – the Hyrule of *Ocarina of Time* strengthened the sensation of "being there."

Borrowing from Michel de Certeau, we might explain this *je ne sais quoi* of 3D as an instance of "poetic experience of space."[27] In his *The Practice of Everyday Life*, de Certeau distinguishes between the panoptic and the everyday, in-the-thick-of-it experiences of space. As exemplified by looking out over a city from atop a skyscraper, the panoptic view – a kind of panorama – simplifies space (in de Certeau's case, the city) with a certain super-rational legibility: "One's body is no longer clasped by the streets that turn and return it according to an anonymous law."[28] In making the complexity of the surrounding environment "readable," the panoptic view "immobilizes" the very protean character of everyday spatial experience.

The oppositional tension between spatial perspectives precisely explains the key difference between the 3D *Zelda* titles and their predecessors. The overhead, map-like view of the earlier, 2D predecessors abstracts away space, allowing us "to read it, to be a solar Eye, looking down like a god."[29] We become disembodied player-gods, guiding Link through a space mapped out from above. The 3D engines of the more recent *Zelda* games, however, place us within the natural perspective (or at least some approximation) of everyday life. We look out into – and not onto – the surrounding environment, even when the camera view clearly differs from Link's own perspective. As such, we become

Figure 9 – Top: In *A Link to the Past* (Nintendo, 1991), we look down and over the space. Bottom*:* In *Ocarina of Time* (Nintendo, 1998), we look out and into the space.

embodied in the virtual world as inhabitants ourselves. "Escaping the imaginary totalizations produced by the eye, the everyday has a certain strangeness that does not surface..."[30] And it is precisely this unreadable "strangeness" that makes navigating *Ocarina of Time*, *Wind Waker*, and other fully 3D games so "poetic." Because we can never immediately parse the total 3D environment in one glance, surrounding space maintains an air of mystery. To look above, we must actively gaze upwards; to look around a corner, we must physically move to another location. The process of discovery is inextricably woven into the very fabric of three-dimensional existence.

That said, it would be overstatement to dismiss the early *Zelda* games as purely panoptic in their treatment of virtual worlds. De Certeau himself points out that the concept of panoramic space is at best "theoretical," a mere picture that by its nature "misunderstands" the subtleties of everyday practices. As he eloquently suggests, "The long poem of walking manipulates spatial organization, no matter how panoptic they may be: it is neither foreign to them (it can take place only within them) nor in conformity with them (it does not receive its identity from them)."[31] Thus, even playing the older, 2D versions of Hyrule signifies what de Certeau calls a "speech-act": a performative act by which we personalize space with our own perceptions and memories. Nevertheless, these speech-acts have greater expressive potential within the "unreadable" complexity of three dimensions. This is not to suggest that 3D is "superior" in any objective sense, but only that 3D spaces can better convey the intangible, experiential quirks of everyday life.

VI. The Externalized Third-Person View

"*The external view of the player's character, although putatively less 'realistic,' is very often more desirable in gameplay terms than the fashionable first-person view.*"[32]

– Steven Poole, *Trigger Happy*

In retrospect, the 3D environments of *Mario 64* and *Ocarina of Time* were not as groundbreaking as the compelling way the games *portrayed* those spaces. At the time of *Mario 64's* development, the success of shooters like *Wolfenstein 3D* and *Doom* had already made the so-called "first-person" perspective the de facto standard in the representation of 3D space. The perspective renders the scene from the viewpoint of our avatar's own eyes, as if our virtual location was also our physical location (right in front of the screen). Thus, the view is an internal rather than external one. Much as we cannot look at ourselves in real life, the first-person view prevents us from seeing our avatar (except, in some cases, for a pair of virtual arms that extend out from the bottom of our avatar's field of vision). As Steven Poole explains, the first-person perspective attempts to "persuade us we are looking *into* the screen or canvas, rather than just looking *at* it"[33] in an effort to "cross the barrier between onscreen action and the player's physical situation."[34] The argument held that the perspective is more realistic because it better approximates natural experience.

Mario 64, however – like every 3D *Zelda* game that has followed – rejected the first-person standard in favor of an externalized "third-person" view. From such a perspective, players see their avatar, often looking from above and behind ("over the shoulder"). This view, writes Poole, is "a completely disembodied one," in that our perspective "corresponds to no actual pair of eyes in the gameworld."[35] In *Mario 64*, this externalized perspective was aptly portrayed as the view from a hovering camera (flown

Figure 10 – Top: *Doom* (id Software, 1993) helped popularize the "first-person" perspective, in which the player is given a view as if looking through the avatar's own eyes. Bottom: like *Super Mario 64* before it, *Ocarina of Time* (Nintendo, 1998) used a "third-person" perspective, in which players look over the shoulders of their avatar.

by perennial *Mario* character Lakitu). For the sake of convenience, camera movement was often automated to guess the most desirable view. However, players were given some say in the final camera positioning. Using the Nintendo 64 controller's C buttons, players could directly control the camera's rotation and zoom, much like "a phantom movie director, floating about on an invisible crane."[36]

At first glance, the third-person view might seem disruptive of the immersive trance. After all, we want to feel as if we ourselves – and not some computer-generated character – are in the virtual environment. But, contrary to Poole's claims, the third-person view does not necessarily lead to disembodiment. In the 3D *Mario* and *Zelda* games, for example, the view always centers on the player's avatar (Mario or Link respectively). This constraint, which prevents players from flying the camera around at will, binds us to our character, thereby enforcing a constant degree of avatar identification. In other words, players cannot fully dissociate their virtual identity from that of their avatar.

We should also note that the purported "realism" of the first-person perspective is itself far from perfect. As Poole argues, the first-person perspective faces problematic technical constraints. Planar projections that subtend larger angles at the eye suffer from marginal distortion. That is, objects at the periphery of a picture plane look exaggerated. In the material world, we avoid such distortion because our vision is never fixed; our eyes use micro-movements to assemble a multitude of visual fragments into one total picture. But because 3D games are by necessity rendered on a single two-dimensional picture plane (the television or computer screen), these distortions are unavoidable. It is no coincidence, then, that videogames, like many paintings, "keep the angle of vision artificially narrow."[37] This narrowing removes peripheral vision, which interferes with

our ability to detect sudden movements and ascertain our total surroundings. Although we may be able to use the controller to move our field of view, Poole points out:

> ... moving a mouse or joystick - can never compete in terms of speed or intuitiveness with our natural, almost unwilled eye movements... it takes a conscious decision and a mechanical fiddle just to glance down at the floor directly in front of you, to make sure you are not going to tread in some fatal ooze, break a trip wire or fall down a satirical pit.[38]

Since peripheral vision plays such an important role in everyday perceptual experience, declaring the first-person view as more "realistic" seems dubious.

The third-person perspective, by contrast, allows a wider instant-by-instant view of space. As such, third-person facilitates navigation of the virtual environment. Poole observes that the third-person view of *Tomb Raider* "enables the player to navigate far more easily and intuitively around the playing areas, because she can see immediately how close Lara is to a side wall, or just how far away that nasty spiked ditch is, in order to navigate its edge safely."[39] Because the third-person view displays our virtual body (the avatar's body) in a more explicit relation to surrounding space, it privileges us with a unique sense of body in space. The first-person perspective may appear more immediately natural, but its narrow tunnel vision ultimately makes it more difficult to understand the total environment. Thus, in some ways, the third-person view fosters a *stronger* feeling of virtual presence.

In terms of gameplay, however, the first-person perspective does enjoy some advantages over the externalized view. It is significantly easier to aim a ranged weapon (like a gun) without the avatar's own body blocking the target, and with the line of sight loosely aligned with the player's own field of vision. This explains why shooters such as *Halo* and *Half-Life*, so centrally based on weaponry and accurate aiming, use the first-person perspective as opposed to the externalized view of exploration games like *Tomb Raider*, in which gun battles are more infrequent.

Figure 11 – Players use the special first-person view \when aiming weapons like the bow. (*The Legend of Zelda: Ocarina of Time*, Nintendo, 1998)

In fact, *Ocarina of Time* actually incorporated a special first-person view mode for exactly this reason. Though the majority of the game was played in the externalized third-person, players could press a button to enter a stationary first-person mode, in which they used the joystick to look around at any angle. This allowed players to better inspect the whole environment, since the third-person view makes it difficult to look directly above or below. In the 3D *Zelda* games, this mode is used – in familiar first-person shooter fashion – to let Link aim his ranged weapons, such as his slingshot and bow. Thus, the 3D *Zelda* games combine the best qualities of both approaches: the moment-by-moment comprehensiveness of the third-person perspective and the first-person view's specificity of control.

Nevertheless, the shift towards a dominant third-person perspective raises some difficult questions. In such an externalized view, does the player act more as disembodied puppeteer rather than direct inhabitant? How can we immerse ourselves in virtual space if

our avatar (e.g. Mario) is so visually "other"? As Barry Atkins points out, "Identification, such as it is, is not absolute or unproblematic... it always intervenes to reconfirm that we are reading text and not acting in the world."[40] The third-person view makes explicit the underlying tension of virtuality: the videogame player is both avatar and not avatar. Atkins describes, "We may become deeply involved in the experience of watching or playing 'as' Lara Croft, but we never undertake a magical transformation to 'become' her."[41] This paradoxical arrangement becomes especially evident when we rotate the camera such that our avatar stands facing us, forcing us to contemplate its unavoidable otherness.

Acknowledging this tension does not necessarily interfere with immersion. As Janet Murray argues, the threshold state between player and avatar feeds into the very liminal nature of videogaming. The third-person avatar "gives us our entry into the artificial world and also keeps some part of ourselves outside of it."[42] In creating those established boundaries, the third-person perspective "reinforces the special nature of the shared reality"[43] and may even *deepen* our immersion. As Murray writes, "This combination of tremendous immediacy with a clearly demarcated border maximizes our immersion in the dramatic action."[44] By acknowledging that videogames are inescapably mediated, the third-person perspective is able to take us *past* the barrier of the screen and into the virtual world.

Atkins similarly argues that a "nod and a wink to fictionality" can, as evidenced by overtly fanciful literary styles such as magical realism, "spark a certain frisson of complicity in the reader or viewer." Atkins continues, "That the trick's methodology might be visible can add to, rather than detract from, the experience of reading."[45] *Wind Waker*, like many other third-person games before it, uses these nods and winks unabashedly. When standing in place, Link animatedly bobs around, blinking his eyes and swinging his arms. If the player stops using the controller for a long enough time,

Figure 12 – Mario takes on a life of his own. Yawning and stretching, Mario eventually falls asleep if the player stops telling him what to do. (*Super Mario 64*, Nintendo, 1996)

Link restlessly takes on a life of his own, shuffling his feet, looking around, and stretching. Somewhat cheekily, *Wind Waker* constantly reminds us that Link exists as more than just our puppet – he demonstrates crude semblances of his own life. Moreover, such displays of avatar autonomy are rarely jarring or intrusive. As Murray observes, "It is almost as if the programmer within the system is waving at us, but doing so in a manner that deepens rather than disrupts the immersive world."[46]

To some extent, we are inextricably tied to our avatar. This identification, a means of embodiment, allows us to feel as if we exist within the virtual world. At the same time, the third-person perspective, through its explicit distinction between player and avatar, forces us outside the virtual world. This distancing allows us, in panoptic faction, to examine the virtual world as a whole. Consequently, we are able to consider the virtual world as both text and experience. Much in the original spirit of the term "avatar," the player functions as both inhabitant and controlling god.

VII. The Controversial Arrival of *Wind Waker*

"*This is but one of the legends of which people speak...*"

– *Wind Waker*, opening narration

Before the debut of *Wind Waker* for the Gamecube in 2003, Nintendo published a variety of less significant *Zelda* sequels, including a pair of Game Boy Color games *The Legend of Zelda: Oracle of Seasons* and *The Legend of Zelda: Oracle of Ages* (both 2001), and a Game Boy Advance port of the Super Nintendo's *A Link To The Past* (2002). The most notable game of the period, however, was *The Legend of Zelda: Majora's Mask*, a Nintendo 64 sequel released in 2000. The game's control mechanics and graphics – based on a slightly modified version of the *Ocarina of Time* engine – remained nearly identical. *Majora's Mask* focused its design efforts on a different plot, new dungeons, a new cast of characters, and a unique gameplay constraint. Link was given a mere three days to save the world from imminent Armageddon, but could use his ocarina to travel back in time and reset the 72-hour period. In addition, *Majora's Mask* prominently featured a set of transformative masks that Link could wear in order to metamorphose into particular creatures.

None of these sequels could prepare the gaming community for the sudden, unexpected turn that the *Zelda* series would take around 2001. Based on its 2000 Space World convention demo, the series seemed to be following a steady progression towards greater visual realism and darker overtones. The demo, which showed a realistic, more "mature" Link locked in battle with arch-villain Ganondorf, touted the technological potential of the Gamecube, Nintendo's new console system. Surprisingly, the Space World 2001 demo portrayed a very different vision. Link was now a child rather than an

Figure 13 – Top: at Space World 2000, Nintendo showed a trailer of an upcoming *Zelda* game.[47] Bottom: over the next year, Miyamoto and team abandoned the original design in favor of a more stylized look. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

adult, and the entire game was rendered in cartoony, cel-shaded graphics. The aspirations toward cutting-edge visual realism had been abandoned.

Miyamoto, a lead producer on the *Wind Waker* team, explained that the decision to use stylized, cel-shaded graphics stemmed from a desire to create something original. "When we first started thinking what the graphics should look like, we realized that *Zelda* wouldn't be *Zelda* if it looked like everything else."[48] In addition to originality, Miyamoto described the appeal of cel-shaded graphics in the face of technological constraints:

> If you were to go with the more realistic looking Link, you'd have to have so much movement to the face for him to be able to essentially impact the emotions of the player and make it feel like the player is emoting through Link. That would require so much time and energy to create those graphics to allow the face to do that.[49]

More than just the technological constraints, Miyamoto also stressed the expressive power of cel-shaded graphics: "I felt we'd be able to give Link a greater sense of character and life."[50] Indeed, the new visual style seemed to guide the entire develop process. Miyamoto revealed, "We're really taking the idea of it being a cartoon and creating the entire world as a cartoon rather than just applying a graphic technique to an already created world."[51] For Miyamoto, the cartoon aesthetic embodied the very ethos of the *Wind Waker* world.[52]

Despite Miyamoto's intentions, the cel-shaded Space World demo sparked a loud outcry throughout the gaming community. As Gamespot recalls, "To some gamers, the new footage was devastating – Link had been transformed into a child, and *The Legend of Zelda* had become 'The Legend of Celda.' Many *Zelda* fanatics were outraged and immediately channeled their anger into online message boards and petitions."[53] A sizeable contingent of *Zelda* fans took the cartoon aesthetic to mean that the game would

pander to a younger audience. Moreover, the visual simplicity of cel-shading led some fans to believe that Nintendo had turned its back on the nuanced experience of simulated environments.[54]

Unphased by the criticism, Miyamoto and team stuck by their concept, responding that "people are just overwhelmingly concerned about the graphic style and haven't had a chance to see how it works with the gameplay."[55] As Nintendo had hoped, many fears were assuaged as fans tried the game for themselves (starting at the 2002 E3 Expo). "Gamers slowly began to warm up to the new concept for the game, and by the time *The Wind Waker* was released in March 2003, concern had given way to fevered anticipation…"[56]

Not all fans accepted the aesthetic transformation, but *Wind Waker* eventually won over many of its skeptics and received a host of positive reviews. Gamespot championed the game as "2003 Game of the Year"[57] and IGN raved, "*Wind Waker* is a masterful achievement – a shining example, in fact, of how videogames should be made and a case study for developers wondering what makes a compelling game."[58] Mike Krahulik ("Gabe") of Penny Arcade, a leading voice in the online gaming community, went as far as to challenge naysayers: "*Zelda* in particular stands out as one of the most polished gaming experiences I've ever had. Let the kids argue in their forums about its 'new look' if they want to… The fact is, most people don't appreciate art and that is what *Zelda* is."[59]

Its overall positive reception notwithstanding, *Wind Waker* did face its share of criticism. In particular, the game was widely criticized for its short completion time, overly easy gameplay, and monotonous find-and-retrieve quests. Perhaps more damaging, however, were the constant comparisons to the fondly remembered *Ocarina of*

Time. At least in the eyes of the media and the general public, *Wind Waker* lived in the shadow of its legendary Nintendo 64 predecessors.

Following the archetypical *Zelda* storyline, the *Wind Waker* plot features Link – the unlikely but brave Hero of Time – in his quest to prevent the evil wizard Ganondorf from covering the world in darkness. Though the story is simple by modern adventure game standards, it is significantly more elaborate than previous *Zelda* plots, featuring several major narrative twists and numerous poignant moments. Link, a sleepy-headed, regular boy, begins his somewhat "accidental" adventure when a giant bird monster kidnaps his kid sister Aryll. Joining forces with pirate captain Tetra (who later turns out to be the last descendant of Princess Zelda) and her crew, Link sets sail from his island home on a deceptively straightforward rescue mission. Under the guidance of a talking sailboat (the King of Red Lions), Link eventually assumes the larger responsibility of saving the world from Ganondorf's evil machinations.

Wind Waker adopts all the tried and true *Zelda* gameplay and design conventions. Along their journey, players must build their inventory of weapons and items, interact with a multitude of colorful characters, travel to a variety of towns, caves, and other (often hidden) places, and conquer a series of dungeons scattered across an expansive overworld. In each dungeon, players face a different mix of enemies, physical obstacles, and mental challenges – including dramatic showdowns against each dungeon's "boss" monster. More than just the battles, the core *Wind Waker* gameplay thrives on its more intellectually geared challenges. Many of these brainteasers may not qualify as puzzles in a traditional sense, but *Wind Waker* frequently requires creative problem solving. In the Forbidden Woods, for instance, players must use a newly acquired boomerang to cut the supporting vines of a massive hanging flower, causing the plant to fall and crash open an

entrance to the dungeon's basement section. Other, quite different types of problem solving include partner-based interactions in which Link must work cleverly together with an accompanying sidekick (either Medli or Makar), as well as full-blown puzzles like the complex arrangement of light-reflecting mirrors at the end of the Earth Temple.

More so than earlier *Zelda* titles, *Wind Waker* reduces the prominence of pure gameplay. As many critics have pointed out, *Wind Waker* is not a very challenging game. In fact, most players will rarely find themselves in danger of "losing" (that is, dying). As one review complained at the time, "In playing through *Wind Waker* the first time, we never died. In fact, we barely came in danger of dying."[60] Even for newcomers to the series, *Wind Waker* battles are far from difficult, especially given the addition of timed power attacks. The ease of life replenishment (whether by finding hearts, using potions, or capturing health-restoring fairies), in conjunction with the ability to save your progress at any point, downplays death as a mere setback. *Wind Waker* even sacrifices some

Figure 14 – Battle in the Earth Temple. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

narrative plausibility to make certain obstacles less dangerous. If the player falls into a pit or some lava, for example, Link magically finds himself alive (after the scene reloads), lying on safe ground nearby. Inexplicably, the only consequence is a small loss of life.

The game's problem-solving challenges, too, are made more digestible (perhaps exceedingly so) by an abundance of hints. Link's eyes will often look at nearby objects, switches, platforms, or other environmental features that the player will need to utilize. For instance, Link glances upwards at certain branches, signaling a grappling hook target that the player might have otherwise missed. More obvious hints are given through a magical "Pirate's Charm" communication stone, through which the King of Red Lions and Tetra give Link clues about the current dungeon. Often times, hints are made visually overt by small yellow arrows that point to relevant objects of attention, such as a vine that Link needs to cut. This kind of spoon-feeding is perhaps made most obvious by the network of friendly map-drawing fish that reveal valuable pieces of information. As a practical necessity, first time players will most likely visit most of these fish in order to fill in their overworld map; that these talking fish also throw in game hints is effectively outside of our control, whether or not we want or need the assistance.

If we judge Wind Waker by the challenge-based puzzle-adventure standards of its predecessors, the absence of rigorous challenges will certainly disappoint. *Wind Waker* wants players to wrestle with its enemies, environments, and puzzles, but it also tries to make those challenges somewhat painless, at least compared to other games of its time. Gameplay, though important, is not the sole purpose; if we treat the game as a loosely choreographed, kinesthetic and audiovisual dance through digital space, the de-emphasis of gameplay makes more sense. As such, *Wind Waker* sometimes feels less like a "game" and more like a virtual world in which exploration happens to be enjoyable.

VIII. A Focus on Exploration

"*Really, with* Mario *and* Zelda*, we have* Mario *being a game that people enjoy just playing and enjoy the controller, and* Zelda *being the type of game where people enjoy an adventure.*"[61]

– Shigeru Miyamoto, 2002

Zelda games have always tried to capture the thrill of adventure. Specifically, it is the adventurous act of exploration – a journey of memorable places, rewarding in and of itself – that lies at the heart of the series. *Wind Waker* retains this spirit, but radically departs from its predecessors in re-imagining the overworld as a series of small isolated islands in a vast ocean. As we later learn, the Hyrule we know from previous *Zelda* games lies submerged beneath the waves, sealed away long ago by "the gods" in a state of suspended animation. As a result, players spend much of their time traversing the oceanic world in Link's trusty sailboat.

In featuring seafaring as its dominant image, *Wind Waker* plays on our romanticized conceptions of high-seas adventure and New World exploration. Evoking notions of an undomesticated, primitive past, Link relies on the power of wind alone to propel his modest vessel. However, Link can use the Wind Waker – a music-making conducting baton based on the ocarina of previous *Zelda* games – to play the Wind Requiem, a magical song that allows players to change the wind's direction at will. It is hardly surprising, then, that the *Wind Waker* serves as the game's overarching symbol. As the sole means of overworld navigation, the wind ties the act of exploration more closely to the physics and structure of the virtual world. The knowledge that the wind stands at our beck and call reinforces the liberating feeling that no destination is unreachable.

Figure 15 – After using the Wind Waker, Link watches as the wind changes direction. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

In similarly quixotic fashion, sea charts and treasure maps establish exploration as a core game mechanic. In the final third of *Wind Waker*, players are required to find and assemble the eight pieces of the Triforce of Wisdom scattered at the bottom of the sea. To do this, players must first seek out the eight Triforce Charts hidden around the overworld. Each chart, after being decoded, becomes a map fragment in which X, of course, marks the precise spot from which players should fish out the treasure chest. Analogously, players can also use Treasure Charts that they find during their adventures to uncover rupee-rich bounties and power-ups. Aside from the Treasure Charts, players can optionally choose to use a whole slew of chart systems, including Beedle's Chart, the Great Fairy Chart, the Secret Cave Chart, the Submarine Chart, and numerous others. To some extent, map-guided exploration comes across as a forced gameplay mechanism that stints the exhilaration of spontaneous discovery. Nonetheless, the treasure map motif

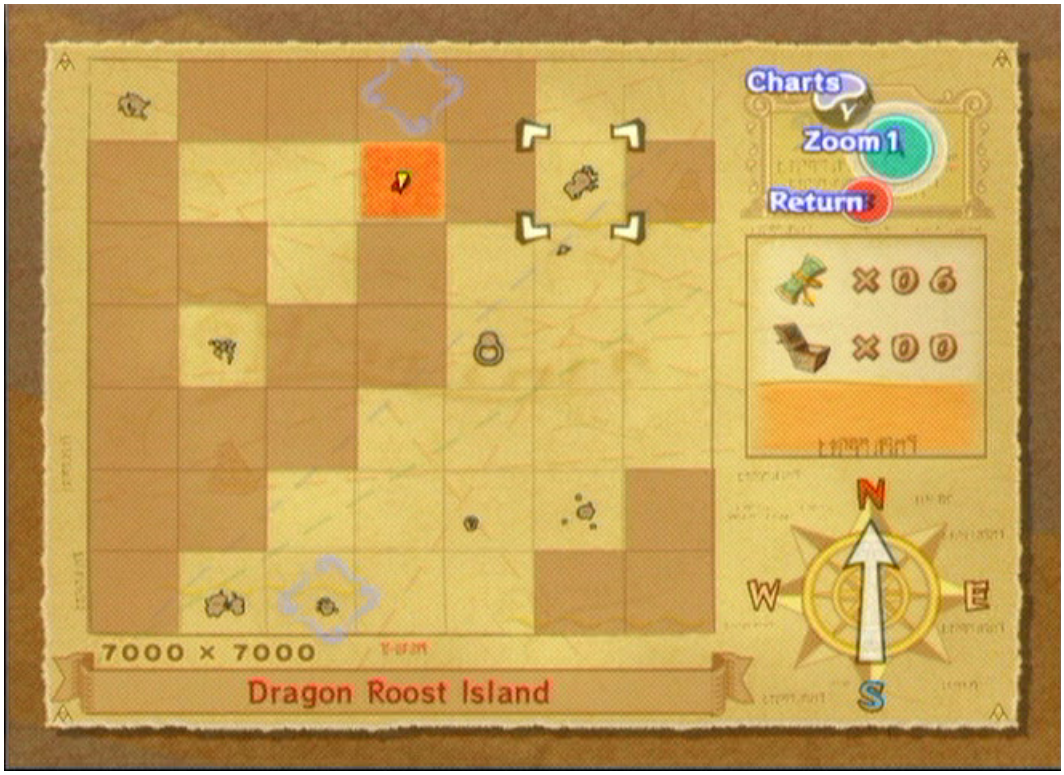

Figure 16 – The overworld map – one of several charts available in the game – plots each island group to a rectangular section. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

does effectively call upon the established mythos of adventure stories like *Treasure Island*.

Wind Waker also fosters exploration on a smaller scale. Players are not only encouraged, but are also required to search out the nooks, crannies, and secret subspaces of each localized environment. Especially in the dungeons, players must carefully pour over each room in order to find the multitude of keys, switches, items, and passages that will lead them to the Dungeon Boss. Even on Link's small hometown Outset Island, players can discover a trove of places over the course of the game. Many of these places, like the hilltop Forest of Fairies and the Savage Labyrinth, must eventually be visited in order to complete the game. Like the rest of the gameworld, Outset Island is also full of

less formalized microspaces. For example, players can find rupees in a variety of quirky locations: under houses, on rooftops, in breakable pots, and in grassy fields.

Additionally, *Wind Waker* provides a number of special "bonus" places. One particularly notable example is the hard-to-access Nintendo Gallery, in which players can build a collection of virtual figurines modeled after the game's characters. Frequently, bonus spaces take the form of hidden caves or ledges that reward players with Heart Container pieces or Treasure Charts. More than the incentive of a specific prize, however, the appeal of these bonus places is that they lay outside the main flow of the game; only the keenest, most thorough explorers will find them (that is, without outside help). In this way, *Wind Waker* directly links the act of exploration with a sense of tangible accomplishment.

To facilitate the exploration of these more localized, immediate surroundings, players are given a variety of navigational aides. The Grappling Hook, for example, allows Link to swing from branches and bars over otherwise impassable crevasses. The Hookshot – a retractable chain projectile – lets Link pull himself up to certain ledges and, occasionally, across wide chasms. The Deku Leaf, a new addition to the *Zelda* series, acts as a wind-guided parachute that Link can use to hang-glide from ledge to ledge, tree to tree, and in some cases even island to island.

More indirectly, some of Link's navigational tools provide additional views of the environment. Aryll's Telescope, the most iconographic of these tools, allows players to enter an ocular first-person view with an adjustable, far-reaching zoom. But the Telescope serves more than just a gameplay purpose. Significantly, the Telescope is the very first item that Link receives, even before any weapon. Despite its potential utility, use of the Telescope is never strictly required after the very beginning of the game.

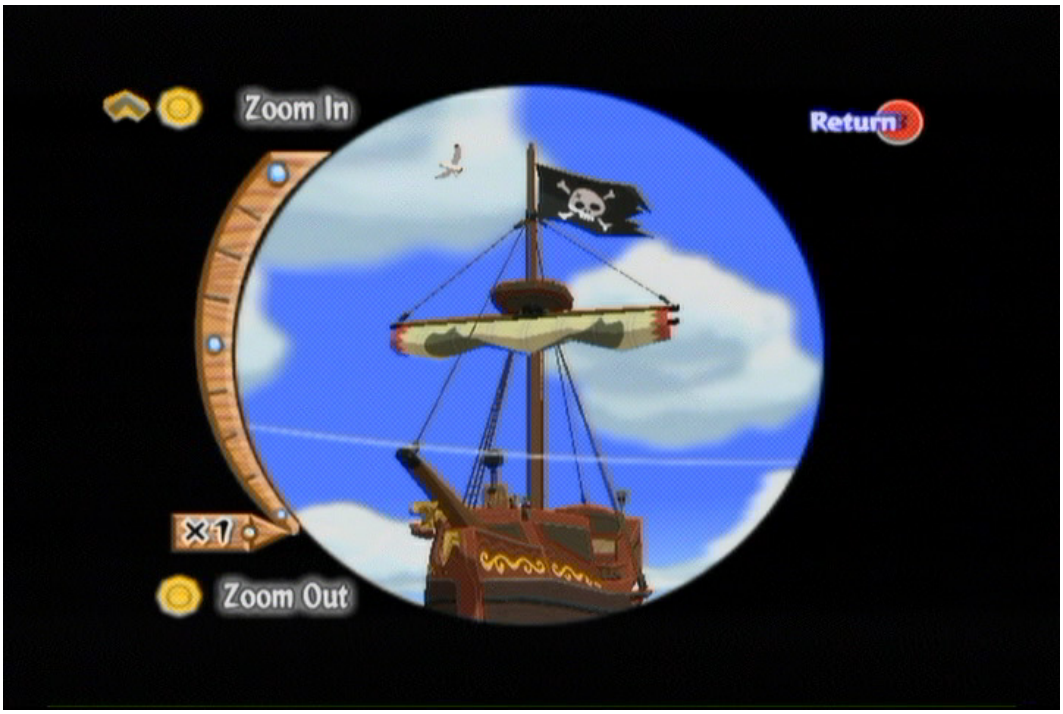

Figure 17 – Link spots a pirate ship through his sister's telescope. Later, Link joins these same pirates. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

Rather, its symbolic relevance lies in the associated, romanticized images of seafaring and exploration; we can almost hear the clichéd storybook exclamation, "Land ho!"

Perhaps the most remarkable of Link's exploratory aides is his ability to temporarily become a free-flying seagull. By placing a magical Hyoi Pear atop his head, Link can lure nearby seagulls and subsequently possess their bodies. Leaving Link's physical form behind on the ground, players assume the role of the seagull, in an aerial third-person avatar view. This alternate perspective not only allows players to inspect otherwise inaccessible hilltops and caves, but also offers, quite literally, a bird's eye view of the surrounding environment. More than the potential practical benefits, the ability to soar unimpeded through the environment functions as a kind of meditative exploration, valuable for its own sake. Indeed, this seagull mode stands as one of the game's more memorable experiences.

Figure 18 – Through the use of a Hyoi Pear, players can fly around in seagull mode. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

Placed together in the same toolkit, the variety of gadgets and perspectives makes exploration a multifaceted process. The gameworld, multifaceted itself, enriches exploration as well. Most notably, the in-game cycle of day and night serves as more than a pleasant change of scenery. Windfall Island in particular offers players a different set of encounters, conversations, and rewards during the night. Patient players, for example, can earn a prized Bottle by hiding at Zunari's Shop to catch streetrat Mila in the act of burglary. Still other game elements rely on the moon phase, such as the location of the Ghost Ship (which players must eventually track down in order to find one of the eight Triforce Charts). In short, these devices encourage players to visit and revisit places at different times. However rudimentarily, the virtual world of *Wind Waker* shows glimmers of a dynamism characteristic of a living, breathing world.

IX. The Tangled Rhizome of the Virtual Playground

> "*… [The arch-rhizome] is the concept of a social order defined by active traversal or encounter rather than objectification. Figures for this order include the ocean of the navigator or the desert of the nomad…*"[62]
>
> – Stuart Moulthrop, "Rhizome and Resistance"

In discussing *Wind Waker*, simply identifying exploration as the central gameplay mechanism fails to illuminate the distinguishing intricacies of its virtual world. Successful navigation of gamespace has functioned as a primary gameplay goal in countless videogames from *Adventure* to *Tomb Raider*. But *Wind Waker* fosters more than simple find-and-conquer exploration. Rather, what sets *Wind Waker* apart from many other exploration-oriented games is the loosely structured open-endedness of its overworld.

Janet Murray, appropriating an oft-used Deleuzian metaphor, aptly characterizes such open-ended spaces as "tangled rhizomes." The rhizome, a highly networked root system, alludes to a kind of post-modernist, anti-rational nonlinearity; rhizomic space is directionless, and as a result it contains no one objectively correct solution or path. On the spectrum of navigable spaces, the antithesis of the tangled rhizome is the "solvable maze," a more linear, clearly structured space with an unambiguous beginning and end. Murray argues that rhizomic space – at least to some degree – is inherently desirable in interactive digital environments. The well-structured maze, Murray reasons, limits spatial choices and consequently frustrates the player's expectation of agency. She writes, "We want an open road with wide latitude to explore and more than one way to get

somewhere. We want the 'pullulating' web that Borges described, constantly bifurcating, with every branch deeply explorable."[63]

Wind Waker is by no means the only videogame to feature rhizomic spaces. The *Grand Theft Auto* series, *Super Mario 64*, and *World of Warcraft* all come to mind as excellent examples of nonlinear, open-ended worlds. Nevertheless, the vast oceanic overworld of *Wind Waker* stands out from the crowd in its audacious starkness. Because the world's tiny islands are dwarfed by the surrounding ocean, players spend significant amounts of time sailing on open waters. One contributor to GameFaqs, an online hub for strategy guides, calculates that approximately fourteen percent of the game is spent sailing – about 146 minutes, based on an efficient 17.5-hour playthrough.[64] And that is a highly *conservative* estimate, since it assumes the player knows exactly what to do, where to go, and chooses optimal routes. First-time players will fall far short of such gameplay efficiency.

Apart from the sheer size of the game's virtual ocean, the absence of visual borders and obstacles intensifies the sense of boundlessness. Technically, the gameworld is finite; if players try to sail off the edge of the map, the King of Red Lions (Link's sailboat) arbitrarily forces Link to turn around ("It's too dangerous to go any further in this direction!"). But because these borders are not demarcated in the 3D environment itself, the oceanic world seems to extend outwards forever. As urban planning theorist Kevin Lynch observes in his *Image of the City*, the absence of clear, directional paths makes it difficult "to grasp the distance traversed or yet to go."[65] The overworld map details our progress traveling from here to there, but its panoptic space is too abstract to counteract the subjective sense of dilated distances.

Yet despite the characteristically rhizomic qualities of its overworld, *Wind Waker* prominently features a number of highly maze-like subspaces, including seven full-fledged dungeons and several mini-dungeons. These highly structured spaces – psychologically "other" in relation to the overworld – are anything but open-ended. Players are free to skulk around dungeons at will, but the interconnecting layout of rooms, passages, chambers, and courtyards forms a logocentric, readable arrangement of space (as made evident by the dungeon maps). To some degree, this labyrinthine spatial design must be intentional; narrow passageways and distinct rooms foster the claustrophobic intensity and suspense that we expect from a stereotypical, storybook dungeon.

More constricting than the maze-like spaces themselves, however, is the strict linearity of action prescribed by those spaces. Full of locked doors, hidden keys, switches, and special items, the dungeons encode a complex, step-by-step procedure that eventually leads to the boss monster. Players must deduce and then follow the elaborate recipe of tasks: in order to obtain the key to the boss lair, we need to enter Room A; but to enter Room A, we first need the Boomerang; to get the Boomerang, we must first find the key to Room B; and so forth and so on. Each such hierarchical recipe, a kind of carefully choreographed mega-puzzle, sequentially unfolds before the player as more rooms are uncovered and more keys are obtained. With sparing exceptions, each sub-task can only be accomplished in one predefined way.

As a gameplay device, this highly linear structure works well. A major part of the fun is trying to deduce the next step in the tantalizingly elusive sequence of actions. Indeed, the labyrinthine dungeon has become a popular, defining component of the *Zelda*

Figure 19 – Walking down a corridor in Dragon Roost Cavern. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

experience. Miyamoto, responding to commonplace criticism that *Wind Waker* suffers from a comparatively small number of dungeons, has recently promised, "The new game [*Twilight Princess*] will have more dungeons. Many more."[66] As Murray points out herself, navigation through maze-like space is inextricably woven into the win-lose game logic and the player's sense of achievement: "As I move forward, I feel a sense of powerfulness, of significant action, that is tied to my pleasure in the unfolding story. In an adventure game this pleasure also feels like winning."[67] Challenge is transformed into space, and space is transformed into challenge.

In terms of the virtual world, this close marriage between world and externally determined goals spurns the notion of environments valuable in and of themselves. Dungeon space is abstracted away into an arena for objectified success or failure. Consequently, we are led to care more about the tasks at hand and less about the

environment itself. The ever-present specter of one "correct" destination delegitimizes all other courses of action as superfluous. As de Certeau cogently observes, "the functionalist organization, by privileging progress… causes the condition of its own possibility – space itself – to be forgotten…"[68] Brenda Laurel offers a particularly cynical criticism of such puzzle spaces, writing, "I find most computer games to be boring, frustrating, and 'obstructionist' in the sense that they require players to solve puzzles primarily for the purpose of extending the duration of game play."[69] Though harsh, Laurel's words certainly ring true. As a concentrated dose of challenges and puzzles, dungeon space often seems arbitrarily strung together. Placed in the context of the more open-ended overworld, the dungeons almost seem like awkward artifacts of franchise convention, anachronistic spaces that belong in the 8-bit age.

In comparison to the dungeons, the *Wind Waker*'s oceanic world seems all the more rhizomic. Admittedly, it is a gross oversimplification to pretend that the overworld is completely nonlinear; even the overworld structures itself around explicit goal-oriented tasks that exist within the framework of a broader narrative (the end-goal, of course, is to stop Ganondorf). But despite the satisfaction of completing gameplay objectives, the lure of externally defined rewards only plays a part in the total experience. For self-motivated players who can look past the game as a straightforward win-lose challenge, the *Wind Waker* overworld champions exploration for exploration's sake. It is a space in which idle experimentation and unstructured play – whether flying around in seagull mode, discovering picturesque little islands, hang-gliding from rooftop to rooftop, or sailing about just for the simple thrill of it – become experiences enjoyable *on their own terms*. As such, *Wind Waker* serves as a model example of Miyamoto's vision of videogames as playgrounds.

Figure 20 – Hang-gliding over Outset Island. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

Henry Jenkins has also adopted this notion of videogames as "virtual playgrounds" and suggests that the importance of rhizomic digital space transcends mere design concerns. In his essay "Complete Freedom of Movement," Jenkins argues that virtual playground space offers a much-needed bridge over a glaring gender gap. According to Jenkins, the virtual playground – through "its focus on psychological issues as much as upon action and conflict" and "its fascination with aimless exploration rather than goal-driven narrative" – overcomes the stereotypes of historically distinct "boy" and "girl" videogame conventions. As videogames have become a staple of contemporary culture, Jenkins is surely justified in proposing, "Boys may need to play in secret gardens or toy towns just as much as girls need to explore adventure islands."[70]

Jenkins also argues that the digital spaces of videogames provide an important substitute for the backyards, neighborhood forests, and fields that are disappearing in our

increasingly urbanized world. “Video games,” Jenkins writes, “constitute virtual playing spaces which allow home-bound children like my son to extend their reach, to explore, manipulate, and interact with a more diverse range of imaginary places than constitute the often drab, predictable, and overly-familiar spaces of their everyday lives.”[71] Citing child psychologist Robert Hart, Jenkins points out that the stability of a physical environment, at least compared to the overwhelming complexities of day-to-day life, provides a nurturing arena for exploration and manipulation. Thus, the open-endedness of playground space plays a key role in identity formation.

Despite Jenkins’ focus on child psychology and the grammar school imagery associated with the term “playground,” the rewards of open-ended digital worlds are in no way limited to children. As Lynch argues, *all* urban citizens are in need of environmental stability. Lynch writes, “The city environment is itself changing rapidly, as techniques and functions shift. These changes are often disturbing to the citizen emotionally, and tend to disorganize his perceptual image.”[72] It does not seem far-fetched to believe that videogame environments – which players return to over and over again, sometimes over the course of years – may act as a source of psychologically stabilizing spatial organization.

In de Certeau’s eyes, the tension between panoptic (i.e. maze-like) and everyday (i.e. rhizomic) spaces raises more issues than just questions of psychology and art; the dichotomy also signifies a political struggle. In the introduction to his *The Practice of Everyday Life*, de Certeau celebrates the multiform experience of ordinary life as a resistance to the power of the State. He urges,

> If it is true that the grid of 'discipline' is everywhere becoming clearer and more extensive, it is all the more urgent to discover how an entire society resists being reduced to it, what popular procedures ... manipulate the mechanisms of discipline and conform to them only in order to evade them...[73]

More recently, hypertext authors Stuart Moulthrop and Martin Rosenberg have similarly addressed the politics of overdetermined maze-like space. Moulthrop draws a distinction between "striated" space and "smooth" space; striated space, Moulthrop argues, is a domain for "order, purpose, and control" and the Law, whereas smooth space is "defined dynamically, in terms of transformation instead of essence."[74] Like Moulthrop, Rosenberg touts the underdetermined form of the rhizome, writing, "Liberated human consciousness means liberation from a geometric ideological construct that disguises the nature of human awareness in order for it better to plot industrial schedules, the trajectories of cannonballs, the circumnavigation of the globe."[75]

The politics of maze and rhizome have far-reaching implications in terms of our enjoyment of videogames worlds (and space in general). Csikszentmihalyi argues that liberation from the tyranny of "external circumstances" is the key step in cultivating the joys of "flow," or optimal experience. He stresses, "The most important step in emancipating oneself from social controls is the ability to find rewards in the events of each moment."[76] This explains why many of the dungeon areas ultimately fail to be memorable, expressive places; when we become preoccupied with solving puzzles, unlocking the next door, and trying to complete the dungeon, we can no longer focus our full attention on appreciating the space itself. By contrast, the open-ended space of the *Wind Waker*'s oceanic overworld fosters what Csikszentmihalyi calls "autotelic" experience, "one that is done not with the expectation of some future benefit, but simply because the doing itself is the reward."[77] Thus, the lasting legacy of the virtual playground is precisely its rhizomic qualities.

X. Transcending Virtual Tourism

"*I know that none shall gather fruit*
By sailing on the barren sea."[78]

– Oscar Wilde, "Lotus Leaves"

Despite all the post-modern promises of the open-ended rhizome, it would be a mistake to attribute the sensation of presence only to space. As a total environmental experience, presence also relies on the *interactions* with and within space. Laurel goes as far as to argue that action, rather than environment, functions as "the primary component of human-computer activity."[79] For Laurel, the virtual worlds themselves are essential, but only insofar as they allow us to "extend, amplify, and enrich our own capabilities to think, feel, and act."[80] Jenkins also acknowledges the importance of interactivity in creating compelling spatial experiences, writing, "The art of game design comes in constructing a multitude of different ways we can interact with these visually remarkable spaces."[81] If a digital environment serves as pretty scenery and nothing more, experiences within that space amount to a kind of escapist virtual tourism that is pleasant, but ultimately shallow.

Myst, the blockbuster puzzle-adventure game that heralded the CD-ROM multimedia age, serves as one particularly good example of navigation as virtual tourism. The world of *Myst* consists of discrete areas represented by beautifully rendered (but static) drawings and atmospheric audio. Players are given a first-person perspective and move instantaneously from area to area by a simple click of the mouse. All other interactions with the world are also constrained by mouse clicking, whether picking up objects or pressing levers and buttons in the process of solving the game's complex

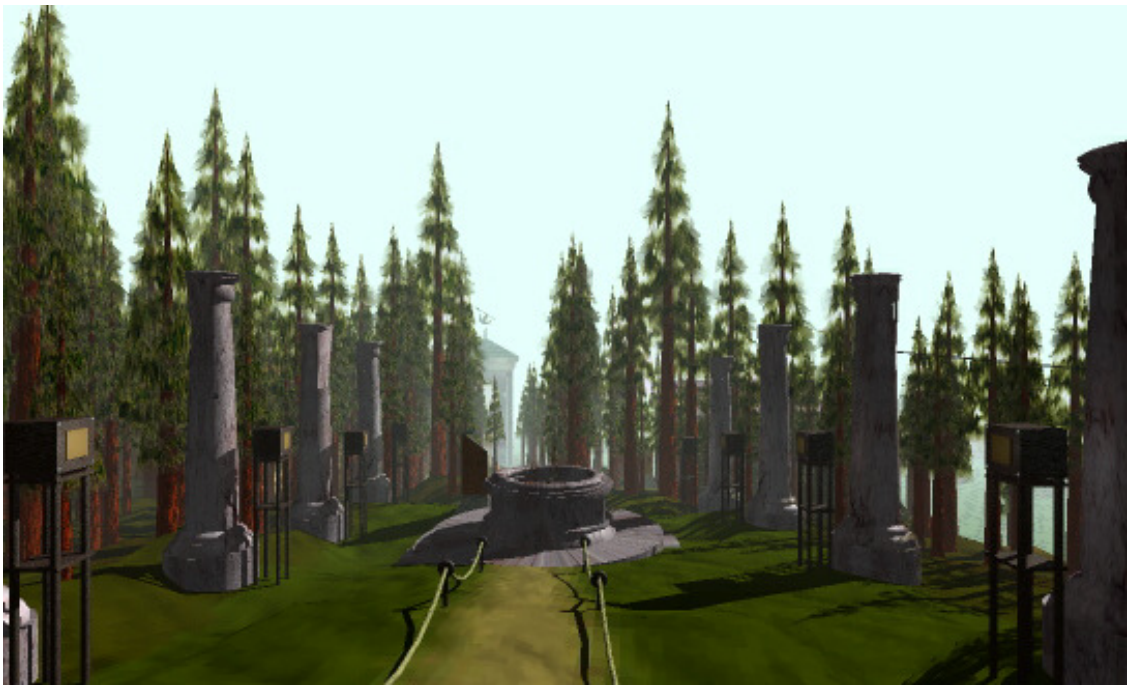

Figure 21 – *Myst* (Cyan Worlds, 1993)

puzzles. Yet the staggering commercial success of *Myst* had little to do with problem solving. As J.C. Herz wryly observes, "*Myst* did not go platinum because it was an intriguing puzzle adventure. The people who bought it were not scratching a heretofore undiscovered itch for phase state logic brain teasers... They paid for the scenery."[82] If anything, the puzzles were a frustrating roadblock for many players who gravitated to the game primarily for an exciting sense of presence in an exotic multimedia world. In fact, the focus on escapism is so acute that no characters exist within the game's environments (the only exceptions are a few fuzzy video transmissions and the hidden ending). The fantasy environments of *Myst* are eerily empty.

As dreamlike virtual worlds in which the environment itself often trumps gameplay, *Myst* and *Wind Waker* may initially seem quite similar. Revisiting de Certeau's terminology, the major difference between the two games mirrors the dichotomy between panoptic and everyday spaces. In *Myst*, the lack of dynamic

environmental occurrences, paired with the discretely rendered Hypercard views of its gameworld, results in a kind of inertia of space. As Murray remarks, "… one of the limitations of the graphically immersive world of *Myst* is that it is dramatically static. Nothing happens of its own accord as the player wanders around in search of puzzles to solve."[83] Moreover, the tourist spaces of *Myst* force us into a finite collection of predetermined postcard vistas. "You couldn't stop halfway down a hall or up a staircase," Herz criticizes of *The Seventh Guest*, another puzzle-adventure game in the tradition of *Myst*. "It was like being bossed around by a really overbearing invisible director."[84] By contrast, the 3D world of *Wind Waker* allows an almost infinite number of spatial locations and views. Continuous space requires a moment-to-moment navigation and an ever-shifting spatial awareness.

It is important to note that 3D graphics alone do not necessarily lead virtual worlds to mature past the pleasantries of virtual sightseeing. Most contemporary Massively Multiplayer Online Roleplaying Games (MMORPGs), for example, boast expansive, fully three-dimensional worlds; yet the environments themselves often emit a dull inertness, falling short of any kind of playground space to be appreciated on its own terms. Even Blizzard's hugely successful *World of Warcraft* is guilty of this charge. Despite the artfully rendered environments, the game's spaces often feel empty (much like *Myst*), and not due to an absence of other players. Outside of the towns, space functions primarily as a vessel for battles and quests. There may be monsters to fight, but the environment offers little of anything else to keep our attention. The vastness of the world serves as a timesink, a hardship that lengthens the process of leveling up. Unsurprisingly, traveling long distances in *World of Warcraft* is notoriously tedious. The

popular appeal of *World of Warcraft* clearly lies elsewhere (e.g. social interaction, inventory management, battle strategy, questing, identity exploration), rather than in the virtual space itself.

The line between surface-deep virtual tourism and a more meaningful sense of presence is precariously thin. *Wind Waker*, for instance, quite clearly indulges in its own escapist conventions. The overworld is filled with picturesque beaches, island getaways, pleasant hillsides, and charming little towns; like *Myst*, it is a world of seductive places. Miyamoto himself has remarked that he would enjoy living in Hyrule "because it is so relaxing."[85] Nevertheless, these escapist qualities do not necessarily preclude *Wind Waker* from transcending the passivity of virtual tourism. More so than *Myst*, *Wind Waker* rises above pure audiovisual spectacle through its depth of spatial experience and interactivity.

Perhaps most importantly, the *Wind Waker* team made an enormously clever design decision in choosing a predominantly oceanic setting. Contrary to Oscar Wilde's poetic claim, the seemingly "barren" sea is an inherently dynamic environment – at least as simulated in *Wind Waker*. For instance, players must pay attention to the direction of the wind in order to successfully navigate by sail. On a decorative level, wind functions as a dynamic visual texture, rendered in stylized white lines that curve, curl, and float through the air. The seawater itself, varying in both appearance and shape, provides another such texture. In some areas, the ocean is almost flat, rendered in one single color of tranquil blue punctured by white wave crests that slowly fade in and out. Elsewhere, the ocean surface – abstractly represented in dancing, two-colored patterns of refracted light and wave-churned foam – gradually forms into fluidly moving swells of varying topologies. More significant than the visual charm, the swells evoke a strong kinesthetic

Figure 22 – Out on the open ocean with the King of Red Lions, Link's trusty, talking sailboat. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

response. At any given instant, the shape and size of ocean swells affects the motion of sailing. These added intricacies of moment-to-moment movement bind in-game spatial navigation closely to use of the controller. Recalling the familiar bobbing sensation of ocean swimming or sailing, we can almost *feel* the waves move.

As one unified environment largely unvarying in character, the *Wind Waker*'s oceanic world avoids the common trap of diverging too quickly into a series of single-use spaces. *Grand Theft Auto* stands as another series that demonstrates the success of this more focused approach to spatial design. Each *Grand Theft Auto* title simulates a single city, but the complex, ever-shifting tapestry of vehicles, city residents, gangs, police forces, neighborhoods, highways, skyscrapers, alleys, and urban vistas makes each installment almost endlessly replayable. Games as accomplished as *Mario 64*, *World of Warcraft*, and *Tomb Raider* may offer us a variety of wildly diverse environments (that is

a central part of their appeal); but given the finite budget and schedule of the game development cycle, this diversification has a cost. Steven Johnson therefore misunderstands videogames and virtual worlds when he writes, "But most of the time, when you're hooked on a game, what draws you in is an elemental form of desire: the desire to see the next thing."[86] The somewhat fleeting reward of seeing the next place pales in comparison to uncovering more features and facets of an already familiar environment. *Wind Waker*, like the *Grand Theft Auto* series, seems to offer a more mature balance of quality versus quantity. The sheer amount of playtime spent in the overworld demands a critical threshold of design attention and care. At the same time, players can still enjoy the tourist pleasure of multiple fantastical environments through the differently themed dungeons.

If anything, the *Wind Waker* designers could have taken the ocean experience to a further extreme. The Ballad of Gales, a magical song that allows Link to teleport across the ocean, signifies a large concession to a contingent of gamers that prioritize fast-paced, goal-oriented gameplay. Though the convenience of instantaneous travel may seem gratifying, we lose something valuable in the process. Teleportation fragments our experience of space, preventing a deeper understanding of the total environment.

The full consequences of this devaluation of space and journey can be analogized by the introduction of railway travel in the early nineteenth century.[87] Wolfgang Schivelbusch writes that the railroad heralded an "annihilation of space and time."[88] Because the railroad "knows only points of departure and destination,"[89] railway passengers – like *Wind Waker* players who use the Ballad of Gales – cannot accurately be called travelers, but rather "human parcels… untouched by the space traversed."[90] Moreover, the "easy, comfortable, and inexpensive accessibility" of expedient travel robs destinations "of their previous value as remote and out-of-the-way places."[91]

In the words of Manuel Castells, places lost in a network of destinations tend towards "architecture whose forms are so neutral, so pure, so diaphanous, that they do not pretend to say anything."[92] The meaning of places – and therefore the experience of presence within those places – is inescapably diminished in a landscape so hierarchically structured. Simply put, convenience is a poor substitute for continuity of space. As Proust observed:

> But after all, the special attraction of the journey lies not in our being able to alight at places on the way and to stop altogether as soon as we grow tired, but in its making the difference between departure and arrival not as imperceptible but as intense as possible, so that we are conscious of it in its totality, intact, as it existed in our mind when imagination bore us from the place in which we were living right to the very heart of a place we longed to see, in a single sweep which seemed miraculous to us not so much because it covered a certain distance as because it united two distinct individualities of the world…[93]

The "quick visit, move on to the next place" mentality implies a disposability of space that is a hallmark of the tourist experience.

Figure 23 – Upon playing the Ballad of Gales, Link is whisked away into the air. After the screen fades to white, Link is set down at his destination. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

In theory, players could simply choose not to use the Ballad of Gales. Nevertheless, the very existence of such a choice colors the experience of space. As Schivelbusch argues, "If an essential element of a given sociocultural space-time continuum undergoes change, this will affect the entire structure."[94] In other words, the distance traveled will always be viewed in context of the distance that *could* have been traveled. By encouraging players to warp between islands, the game designers effectively imply that the space between islands is ancillary to the next dungeon, the next challenge, the next objective. Because most other items and abilities are necessary for progressing through the game, the Ballad of Gales carries a certain weight of inevitably ("if I have this ability, I should probably use it"). Contrary to traditional game design principles that tout player choice, the very possibility of instantaneous travel degrades environmental presence.

For all this focus on virtual environment, we should remember that videogames, however unstructured, are ultimately games and not travel simulations. As Murray writes, "Because we experience ourselves as present in these immersive worlds, as if we are on the stage rather than in the audience, we want to do more than merely travel through them."[95] In creating an immersive gameworld, dynamic environmental elements are necessary but not sufficient.

In *Wind Waker*, the depth of interactivity stems from the potential arsenal of actions and moves. As in any good playground, we can do more than simply walk or run through space. Link can (among other actions) tuck and roll, crouch, crawl in confined spaces, hang from ledges, shuffle across narrow cliff overhangs, and leap from platform

to platform. Some of these actions, capitalizing on the Gamecube's analog controls, even offer us a more flexible range of movement. Depending on how lightly we press the control stick, Link will run, walk, or slowly tiptoe. These basic actions may not sound like much, but even a modest set of different moves spices up the repetitive monotony of travel. On the ocean, for example, even the simple ability to jump our boat several feet into the air makes sailing long distances more fun. This, of course, explains why "platformer" games like the *Super Mario Bros.* series are so enjoyable. In the tradition of monkey bars, jungle gyms, and swing sets, it is surprisingly fun to jump, roll, and crawl our way around virtual space with the simple press of a few buttons. Poole, analogizing this kinesthetic pleasure to the thrill of driving, touts an "amplification of input."[96]

In fact, this potential range of movements is precisely what elevates *Wind Waker* above the inertness of games like *Myst* and *Seventh Guest*. In *Myst*, navigation through and interaction with the environment is limited to simple mouse clicks. In *Wind Waker*, the variety of moves, as well as the way we can fluidly string those moves together, allows a greater feeling of agency in the virtual world. These platformer-like elements also account for the major difference between the *Zelda* series and many traditional role-playing games. For instance, in the landmark *Final Fantasy* series, players command their band of adventurers through an abstracted menu system. Like disembodied generals barking out orders, we can tell our characters to fight, cast a spell, or use an item, but we never enact these actions ourselves. By contrast, *Wind Waker*, like its predecessors, ties us closely to Link's every movement. With a few simple controls, we can swing Link's weapon in several different ways, hide behind his shield, flip backwards, dodge side-to-

side, or pounce forward with an overhead sword swipe. Unlike the menu-based system of *Final Fantasy*, *Zelda* battles are viscerally kinesthetic, unifying body and space.

The few battle commands that *Wind Waker* automates seem all the more forced juxtaposed with the game's platformer elements. When fighting enemies, players can pull off flashy special attack moves with a correctly timed button press. In cinematic fashion, Link vaults over the foe and swipes from behind, or evasively rolls around the enemy to counterattack with a damaging upward thrust. These moves may initially provide dramatic emphasis, but they eventually leave us wanting to carry out the maneuvers ourselves. The resulting passivity of these special attacks works against an otherwise strong sense of agency.

As a dynamic virtual world, *Wind Waker* reacts to the range of actions it offers us. Dramatically appropriate audiovisual responses accompany our every action, rewarding our enactment of agency. Link, for example, reflects our commands through a variety of facial expressions and emotive yelps, war cries, heaves, and sighs. The environment itself displays a varied range of physical and audiovisual properties. Swinging Link's sword at wooden surfaces produces flying splinters and a hollow thud, whereas hitting solid rock yields orange sparks and a loud metallic clank; somersaulting on fields causes little bits of grass to fly up, whereas tumbling on harder surfaces produces small dust clouds. Often, these audiovisual touches are more evocative than true-to-life. Crawling around on elbows and knees elicits high-pitched blips expressive of a sneaking motion; defeated foes satisfyingly vaporize with a loud poof into colorful, stylized smoke. Action responses are sometimes even rudimentarily tactile. Taking advantage of the Gamecube

Figure 24 – When players swing their sword into solid rock, the gameworld reacts with a burst of metallic sparks, and Link reacts with a stupefied facial expression. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

controller's built-in rumble pack, hard collisions, electrical shocks, and other rough encounters trigger the game to react with an appropriate amount of vibration.

Of course, such sensory-based responses are hardly novel; they have been used by videogames since the first arcade machines. But *Wind Waker*, more so than most contemporary games, boasts an impressive attention to detail. These details are not just decorative, but form a cornerstone of the interactive experience. Audiovisual (and tactile) acknowledgement of player actions, however seemingly trivial, creates feedback loops, creating a continual dialogue between player and virtual world. The actual effects of rolling in the sand or thwacking a wall may only be ephemeral, but an appropriately tailored sensory response creates a convincing illusion of real consequence. The distinctly

cathartic nature of these reactions – whether colorful, subtle, comical, jarring, or soothing – encourages us to continue interacting.

Thus, the importance of breadth and depth of audiovisual response is less an issue of photorealism, and more an issue of immersion. This principle holds true for any aspect of a virtual world; in designing a compellingly immersive virtual environment, what matters is not the nature of any isolated element itself, but the relationship of that element to the broader system. Describing the highly disruptive nature of inconsistencies in virtual worlds, Poole cites an example from the *Tomb Raider* series. We can use Lara Craft's rocket launcher to blow enemies to smithereens, but we cannot use rockets to damage locked wooden doors (they can only be opened by the appropriate key). Though the rocket launcher succeeds as a weapon, it ultimately frustrates our expectation of agency. Murray advocates that game designers remove such problematic elements and focus on depth rather than breadth. "By using these literary and gaming conventions to constrain the players' behaviors to a dramatically appropriate but limited set of commands," she writes, "the designers could focus their inventive powers on making the virtual worlds as responsive as possible to every possible combination of these commands."[97] Laurel frames the pressing need for consistency in Aristotelian terms:

> Actions that are impossible in the real world (such as a person flying) can be made believable and understandable in their dramatic context if probability is established. This fact led Aristotle to observe that in dramatic action, an impossible probability is preferable to an improbable possibility.[98]

In *Wind Waker*, for example, the seemingly "impossible" existence of flower-grown bombs hardly fazes us (to the contrary, they are endearingly imaginative). More

disruptive is the arbitrary constraint that bars us from finding bombs until Tetra first gives us some.

For the most part, however, *Wind Waker* enjoys a highly consistent gameworld. In particular, the depth of its item system demonstrates the synergistic relationship between consistency and agency. Like its predecessors, *Wind Waker* gives Link a versatile set of tools and weapons that can and must be used in a variety of creative ways. The Deku Leaf, for example, acts not only a hang glider, but also a fan that can be used to stun airborne monsters and turn wind-powered machinery. Link's bottles can hold a range of things from fairies to fireflies to special potions. In fact, the game co-opts this multiplicity of functions into a cleverly designed puzzle; to enter Dragon Roost Cavern, we must first realize that a bottle, as common sense would dictate, can be used to transport water to the withered patch of bomb flowers.

The broad potential of Link's multifaceted tools not only creates puzzles, but also makes them less predictable. Consider the more shallow item systems of games like *Resident Evil*. As Poole points outs, the plethora of single-use keys and triggers sets up a one-to-one correspondence between puzzle and item. As long as we can find the requisite object, a simple process of elimination determines the correct course of action. Minimal problem solving is required; the puzzles almost solve themselves. By contrast, the open-ended functionality of *Wind Waker* necessitates lateral thinking. For example, simply owning the Boomerang and Deku Leaf does not tell us how to traverse a certain waterway in the Forbidden Woods. Only by evaluating the surrounding environment and the capabilities of Link's tools can we deduce the multi-step solution: first, we must cut

down a giant flower using the Boomerang, and then we must commandeer the floating plant as a boat, fanning the Deku Leaf for wind propulsion. Thus, spatial navigation relies not on a simple choice of item, but on the how-to of *using* that item. As such, Link's multifunctional tools intensify the focus on environment.

To *Wind Waker*'s credit, the capabilities of Link's tools usually coincide with the uses that we think up ourselves. Echoing Murray's advocacy of depth over breadth, *Wind Waker* focuses its creative energies on making a relatively simple set of weapons and items as dynamic as possible. Such consistency bespeaks an underlying design philosophy that privileges the object itself over goal-oriented usage. Recapitulating the open-ended space of the overworld, each of Link's tools constitutes a kind of mini-playground that demands exploration and experimentation. Single-use items, however, reflect the disposability of tourist space. The key-like emblems, jewels, and medals of *Resident Evil* brandish a glitzy iconicity and little else; in contrast, the multifunctional objects of *Wind Waker* possess a richness that allows players to flex their agency.

We should be careful, however, not to confuse multifunctionality with complexity. Link's tools are so engrossing precisely because they operate with a dynamic *simplicity*. Despite all this attention given to action and interaction, the opposite extreme presents its own problems. For instance, in fighting titles such as *Soul Calibur* and *Marvel vs Capcom*, the focus on complex combos, timing, and special moves abstracts away the space of the fighting arenas. If we spend an overwhelming majority of our efforts on performance-oriented gameplay tasks, we are left with little cognitive room to appreciate the virtual environment. Of course, this kind of skill-based game has its own

merits, but the approach offers an inherently different experience than the sensation of presence. Any virtual world that aims to engender a memorable experience of place must maintain a delicate balance between action and setting.

To that end, Wind Waker's multifaceted toolset showcases one possible (and promising) design strategy. Hang-gliding by Deku Leaf forces us to internalize the kinesthetics of wind-based navigation; the pronounced swinging motion of our Tarzan-esque Grappling Hook acrobatics infuses the chasms that we cross with a tangible air of peril. In short, *Wind Waker* allows action and setting to reinforce each other by providing exciting interactions that also enhance our appreciation of the virtual world.

Figure 25 – Using the Grappling Hook to swing over a watery ravine. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

XI. Outgrowing the Playground Metaphor

"*I want to help people who play games become more creative. Games are something you play spontaneously; in games, you can cause things to happen spontaneously.*"[99]

– Shigeru Miyamoto, 2003

Back in the NES days, the vision of videogames as virtual playgrounds must have seemed an ambitious ideal. But now that advances in design and technology have made playground-like digital space an everyday reality, the limitations of such environments are becoming clearer.

Jenkins contrasts the playground with the "wild spaces" of more rural areas (e.g. backyards, forests, creeks). Both types of space cultivate a multiplicity of usages, but the nonlinear structure of the playground is predetermined and immutable. As an engineered, consciously designed environment, the playground is haunted by the intentions of others. For this reason, Jenkins argues that most modern videogames, relying on "pre-structured forms of interactivity," are "more like playgrounds and city parks rather than wild-spaces."[100] He continues:

> … The video game culture is not a world children construct for themselves but rather a world made by adult companies and sold to children. There is no way that we can escape adult intervention in shaping children's play environments as long as those environments are built and sold rather than discovered and appropriated.[101]

Jenkins' so-called wild spaces offer an alternative model. Citing research in child psychology, Jenkins stresses that the unplanned nature of wild spaces nurtures meaningful play and personal growth. Since wild spaces can be physically shaped and modified, they can better accommodate spontaneity and creativity.

In practice, the distinction between playground and wild space is not so clear. As de Certeau argues, the "speech-act" of walking (i.e. spatial navigation) signifies a

creative form of improvisation, even in the most constricted spaces. Though the walker actualizes a space's existing "possibilities and interdictions," he also "moves them about and he invents others…"[102] In spite of its intentions, designed space produces "effects contrary to those at which it aims."[103] Hence, Jenkins' claim that playgrounds "can only be used in sanctioned ways" is somewhat exaggerated. Much like children on a playground, videogame players invent their own stories, tasks, routes, and ways of movement, even in the most constricting of environments. Nevertheless, some spaces are certainly better than others at facilitating spontaneity. Though its unalterable space does not stifle creativity, the playground fails to actively *encourage* creativity.

Even the expansive oceanic world of *Wind Waker* cannot escape the inherent limitations of its meticulously purposed space. With few exceptions, each subspace (e.g. island, building, cave) organizes itself around a specific gameplay function. In similar fashion, there usually exists only one solution to puzzles and miniquests, and one way to traverse navigational hurdles like chasms, boulders, and ledges. As the IGN review of the game criticizes, the strict ordering of quests "conflicts with the otherwise go-anywhere-do-anything nature of the experience."[104] This kind of interactivity is ultimately more about deduction than construction. Johnson observes, "… your supply of information about the narrative – whom you should talk to next, where that mysterious package has been hidden – is only partial, and so playing one of these games is ultimately all about filling in that information gap."[105] Granted, players can and often will (as de Certeau predicts) stray from the spoon-fed agenda; this flexibility is the central benefit of the playground's open-ended layout. Nevertheless, the playground's static form cannot itself sustain unstructured play for long. When we inevitably return to the arc of pre-specified gameplay tasks, the more rhizomic qualities of the overworld are reduced to an overdetermined hierarchy more befitting of the game's labyrinthine dungeons.

The most egregious example of overdetermined space is undoubtedly the infamous Triforce "fetch quest." Because players are required to find all eight Triforce charts, pay to decode those charts, and then scour the ocean to fish out the pieces, assembling the Triforce feels like monotonous labor. In fact, so many Japanese players complained about the mundaneness of the fetch quest that Nintendo decided to shorten the task in the American version. Director Eiji Aonuma has admitted, "I apologise that we didn't fix the triforce hunt at the end of the game. It was slow and dull."[106] As Laurel warns, "… if the granularity of actions is too small and those actions cannot be grouped into more meaningful, coherent units… then the activity becomes an endless stream of meaningless chores."[107] Because the essence of discovery lies in its spontaneity, forced exploration feels more like a chore than an adventure.

Contrary to Johnson's oversimplification of videogames as primarily deductive exercises ("filling in the gaps"), videogames also have the potential to facilitate constructive, self-determined endeavors. Poole argues, "… a good videogame will allow predetermined actions to be combined in creative ways that certainly weren't deliberately predicted at the design stage."[108] Many such games already exist. Will Wright's Sim games, for example, let players build and tinker with the underlying structure of the gameworld. By architecting their own cities, towers, houses, and families, players of games like *SimCity*, *SimTower*, and *The Sims* express themselves not only in virtual worlds, but also *by* virtual worlds. Laurel and Rachel Strickland demonstrate another approach to constructive "adult play" in their virtual reality installation Placeholder. In the simulation, participants personalize a persistent virtual world through "the marks they leave on things." Participants can embed short voice recordings into magic rocks, leaving a kind of virtual "graffiti" for others to access at a future date. Laurel explains that these "voicemarks" – a form of user-generated content – played a central role in the

installation: “The VR artist does not bathe the participant in content; she invites the participant to produce content by constructing meanings, to experience the pleasure of embodied imagination.”[109]

All that said, “constructive” adult play does not necessarily need to result in some type of tangible, translatable product. A happily creative process also takes place when we personalize existing space. In the words of de Certeau, this is a kind of creativity “that flourishes at the very point where practice ceases to have its own language.”[110] In *Wind Waker*, for instance, the most compelling places are not dungeon rooms or secret caves, but the more general-purpose “accidental” spaces, the unchristened spatial glue that holds together the game’s dungeons, caves, buildings, and similarly intentioned places. These somewhat anonymous places often lie off the beaten path, ranging from small isolated islands and quiet stretches of seashore, to rooftops and uninhabited hilltops. Unassociated with specific gameplay objectives, these unclaimed spaces provide a partially blank

Figure 26 – Off the beaten path, doing backflips in a flowerbed atop Outset Island. (*The Legend of Zelda: The Wind Waker*, Nintendo, 2002)

canvas for us to fill with our own interpretations, stories, and intentions. For example, the hilltop on Outset Island, standing above the ebb and flow of the town below, serves no explicit purpose aside from providing rope-bridge access to the Forest of Fairies. The space offers rocks to climb, flowerbeds and grasses that can be cut or somersaulted through, high cliffs for Deku Leaf hang-gliding, and panoramic vistas of the town and ocean. Though we can imagine richer spaces, the fact remains that the hilltop – in the tradition of treehouses and backyard forts – is a place we can enjoy and claim for ourselves.

Unfortunately, *Wind Waker* makes such unclaimed spaces exceedingly scarce. Though the dominating space of the ocean engenders a powerful sense of expansiveness, the islands are restrictively small as a result. Because of this limited land area, the game ends up flooding almost every subspace with predetermined gameplay functionality; every island and landmark hides a dungeon, Heart Container Piece, Treasure Chart, or some other pre-designed quest. Such an oversaturation of intension demeans the experience of any type of space, virtual or real.

As Lynch argues, "A landscape whose every rock tells a story may make difficult the creation of fresh stories... what we seek is not a final but an open-ended order, capable of continuous further development."[111] Lynch, citing cultural anthropologist Carl Strehlow, relates a compelling example of this phenomenon. According to Strehlow, the Arunta tribe of Australia has so saturated the local landscape with myth that "tradition has effectually stifled creative impulse... narrative myths ceased to be invented many centuries ago..." Lynch concludes, "If it is desirable that an environment evoke rich, vivid images, it is also desirable that these images be communicable and adaptable to changing practical needs, and that there can develop new groupings, new meanings, new poetry."[112] In other words, presence and constructive play are inextricably linked.

XII. Conclusion

> "*Given a multisensory environment that is good enough, people engage in projective construction that is wildly elaborate and creative. And so this turns the problem on its head; rather than figuring out how to provide structure with pleasing emotional textures, the problem becomes one of creating an environment that evokes robust projective constructions.*"[113]
>
> **–** Brenda Laurel, *Computers as Theatre*

While playing through *The Legend of Zelda: The Wind Waker* in July of 2003, I felt compelled to write a brief travelogue: *I saw the sun rise today. Twice. Both times over the ocean. […] The second time, the sun broke through an early morning rainstorm, yielding a rainbow of greyish-lavander hues. I was sailing East.*

As my Hyrulian high-seas adventures demonstrate, Poole oversimplifies when he describes videogames as "a kind of high-speed meditation."[114] Videogames can certainly be meditative, but they are not always high-speed. Contrary to stereotypes of flashing colors, techno beats, and nonstop violence, the oceanic world of *Wind Waker* exists in a very different orbit.

Although framed as a traditional epic, *Wind Waker* constructs an atmosphere that is distinctly introspective. Its lasting images, rendered in washed-out pastel colors, are those of sunsets, drifting clouds, starry skies, undulating waves, and panoramic ocean views. At night, even the background music fades away, leaving only a quiet rhythm of wind and water sounds. This tranquility is, of course, punctuated by moments of action via enemies, quests, and dungeons. But it is precisely those more meditative moments – flying as a seagull, sailing for long stretches of time, exploring a seaside cliff – that set *Wind Waker* apart from its predecessors.

The designers themselves seem to acknowledge that the game operates at a slower pace. One character, clearly poking fun at an outdated, action-centered view of videogames, exclaims, "You're the adventure guy, sailing from island to island. Action! Excitement! Right?" Another character, speaking to the core *Wind Waker* experience, advises us, "Why, just walking around and having a look at things is quite fun! *That's* the mark of a great town!"

Virtual worlds that blur gameplay with meditation – at least those worlds that focus on facilitating presence – offer more than just escapist pleasure. They give us a way to make sense of ourselves. As de Certeau observes, our experiences of places draw from and feed back into our own personal narratives. "Places are fragmentary and inward-turning histories, pasts that others are not allowed to read, accumulated times that can be unfolded but like stories held in reserve..."[115] For me, hazy memories of my own seaside adventures lent *Wind Waker* a certain emotional resonance. In turn, these virtual adventures would later color my experience of the ocean in the material world. The game fostered a dialogue between my virtual and "real" lives, to the enrichment of both.

As Game Studies increasingly turns its attention to massively multiplayer environments like *World of Warcraft* and *Second Life*, we should be careful not to forget single-player worlds. By setting an atmosphere of solitary peacefulness, *Wind Waker* provides a place where overworld exploration leads to exploration of the self. Laurel, who clearly sees this potential, frames it well: "The primary concern of [virtual reality] is not constructing a better illusion of the world; it is learning to think better about the world, and about ourselves."[116] Looking towards *Wind Waker* and beyond, I revisit Stafford: caught in a twenty-first century storm, we players, we meanings, may finally be finding our worlds. ❑

Endnotes

1. Laurel, *Computers as Theater*, 195.
2. Atkins, *More Than a Game*, 8.
3. Lynch, *The Image of the City*, 92.
4. de Certeau, *The Practice of Everyday Life*, 117.
5. McMahan, "Immersion, Engagement, and Presence," 68.
6. Lee, "Presence, Explicated," 27.
7. Ibid., 44-45.
8. Ibid., 29.
9. Ibid., 30.
10. Ibid., 32.
11. Ibid., 42
12. Miyamoto, Interview in *Mario Mania Players Guide*.
13. For an oft-cited discussion of videogames, psychology, and partial reinforcement, see Loftus and Loftus, *Mind at Play: The Psychology of Video Games*.
14. Vestal, O'Neill, Shoemaker, "The History of Zelda."
15. Ibid.
16. Ibid.
17. Ibid.
18. Ibid.
19. Rouse III, "Do Computer Games Need to be 3D?"
20. Ibid.
21. Perry, "Super Mario 64."
22. Ibid.
23. Hall, Interview in *Gamespot.com*.
24. Poole, *Trigger Happy*, 116.
25. Vestal, O'Neill, Shoemaker, "The History of Zelda."
26. "IGN's Top 100 Games."
27. de Certeau, *The Practice of Everyday Life*, 93.
28. Ibid., 92 .
29. Ibid., 92 .
30. Ibid., 93 .
31. Ibid., 101.
32. Poole, *Trigger Happy*, 133.
33. Ibid., 129.
34. Ibid., 124.
35. Ibid., 133.
36. Ibid., 133.
37. Ibid., 132.
38. Ibid., 132.
39. Ibid., 133-134.
40. Atkins, *More Than a Game*, 84.
41. Ibid., 27.
42. Murray, *Hamlet on the Holodeck*, 113.
43. Ibid., 113.

44. Ibid., 120.

45. Atkins, *More Than a Game*, 29.

46. Murray, *Hamlet on the Holodeck*, 105.

47. Top picture from Vestal, O'Neill, Shoemaker, "The History of Zelda."

48. Miyamoto, Interview in *Gamepro*.

49. Miyamoto, Interview in *IGN.com*, 2003.

50. Miyamoto, Interview in *IGN.com*, 2002.

51. Miyamoto, Interview in *Nintendo Power*, 2002.

52. Although visual realism remains a core and contentious issue in videogame design, a more thorough discussion of aesthetics lies outside the scope of this thesis. For the canonical work on comic books, character identification, and visual abstraction, see McCloud, *Understanding Comics*. For a more general discussion of representation, expression, and art, see Abrams, *The Mirror and the Lamp*.

53. Vestal, O'Neill, Shoemaker, "The History of Zelda."

54. In November 2006, the sequel to *Wind Waker*, entitled *The Legend of Zelda: Twilight Princess*, was released for the Nintendo Wii. Partly a reaction to the outcry over *Wind Waker* and its cel-shaded graphics, *Twilight Princess* features a darker, more photorealistic visual style. Like *Wind Waker* before it, the game sparked heated debate over whether videogames should strive towards photorealism. For an overview of the controversy surrounding Wind Waker and Twighlight Princess, see Ruberg, "Realism vs. Style: the Zelda Debate" and the accompanying reader comments.

55. Miyamoto, Interview in *IGN.com*, 2003.

56. Vestal, O'Neill, Shoemaker, "The History of Zelda."

57."Gamespot's Best of 2003."

58. Casamassina, "Legend of Zelda: The Wind Waker."

59. Krahulik, "Z3LD4? M0R3 L1k3 C3LD4!"

60. Casamassina, "Legend of Zelda: The Wind Waker."

61. Miyamoto, Interview in *Computer and Videogames*.

62. Moulthrop, "Rhizome and Resistance," 301.

63. Murray, *Hamlet on the Holodeck*, 132.

64. Howell, "The Legend of Zelda: The Wind Waker: FAQ/Walkthrough."

65. Lynch, *The Image of the City*, 55.

66. "Zelda producer slags own game." July 25, 2005.

67. Murray, *Hamlet on the Holodeck*, 132.

68. de Certeau, *The Practice of Everyday Life*, 95.

69. Laurel, *Computers as Theater*, 167.

70. Jenkins, "Complete Freedom of Movement," 292.

71. Ibid., 263

72. Lynch, *The Image of the City*, 111-112.

73. De Certeau, *The Practice of Everyday Life*, xiv.

74. Moulthrop, "Rhizome and Resistance," 303.

75. As quoted in Moulthrop, "Rhizome and Resistance," 310-311.

76. Csikszentmihalyi, *Flow: The Psychology of Optimal Experience*, 19.

77. Ibid., 67.

78. Wilde, "Lotus Leaves," 17.

79. Laurel, *Computers as Theater*, 135.

80. Ibid., 33.

81. Jenkins, "Art Form for the Digital Age."

82. Herz, *Joystick Nation*, 149-150.

83. Murray, *Hamlet on the Holodeck*, 108.

84. Herz, *Joystick Nation*, 154.

85. Miyamoto, Interview in *IGN.com*, 1999.

86. Johnson, *Everything Bad Is Good for You*, 37.

87. Railway travel is not a perfect analogy for the Ballad of Gales. Unlike the Ballad of Gales, railway travel is not instantaneous. Modern transportation, at the very least, moves through the space it annihilates. In fact, it could be counter-argued that the panoramic views afforded by train travel allow for a more holistic appreciation of place. Schivelbusch, for instance, documents the emergence of a modern consciousness that perceives "an intrinsically monotonous landscape brought into an esthetically pleasing perspective." However, this counter-argument fails in the case of the Ballad of Gales. The discontinuity of instantaneous travel nullifies even panoramic experience. The spaces between are no longer merely degraded – they are altogether ignored.

88. Schivelbusch, *The Railway Journey*, 33.

89. Ibid., 38.

90. Ibid., 39.

91. Ibid., 42.

92. de Certeau, *The Practice of Everyday Life*, 420.

93. As quoted in Schivelbusch, *The Railway Journey*, 39-40.

94. Schivelbusch, *The Railway Journey*, 36.

95. Murray, *Hamlet on the Holodeck*, 110.

96. Poole, *Trigger Happy*, 148

97. Murray, *Hamlet on the Holodeck*, 79.

98. Laurel, *Computers as Theater*, 80.

99. Miyamoto, Interview at Tokyo University.

100. Jenkins, "Complete Freedom of Movement," 272

101. Ibid., 276.

102. de Certeau, *The Practice of Everyday Life*, 98.

103. Ibid., 95.

104. Casamassina, "Legend of Zelda: The Wind Waker."

105. Johnson, *Everything Bad Is Good for You*, 30.

106. "Zelda producer slags own game." July 25, 2005.

107. Laurel, *Computers as Theater*, 64-65.

108. Poole, *Trigger Happy*, 57.

109. Laurel, Strickland, and Tow, "Placeholder."

110. de Certeau, *The Practice of Everyday Life*, xvii.

111. Lynch, *The Image of the City*, 6.

112. Ibid., 139.

113. Laurel, *Computers as Theater*, 209.

114. Poole, *Trigger Happy*, 168.

115. de Certeau, *The Practice of Everyday Life*, 108.

116. Laurel, *Computers as Theater*, 214.

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“As for our destination... the wind will guide us!”