THE OFFICIAL BOOK OF

SHAY ADDAMS

Ultima®

INTRODUCTION BY LORD BRITISH, THE CREATOR OF THE *ULTIMA* SAGA

This long-awaited guide to the *Ultima* saga includes:
Methods to improve your strategy in all six games
Never-before-published clues
The story behind the creation of the world of *Ultima*

The Official Book
of
Ultima®

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Contents

To Dora,
my little treasure

Preface

The first time I played an *Ultima*—I can recall that night as vividly as I remember where I was and what I was doing the moment I heard John F. Kennedy had been assassinated, and that's probably true for many avid adventurers who have ventured into Richard Garriott's fantasy worlds. My first destination was *Ultima III's* Sosaria, which I was visited by way of a Commodore 64 in Greenwich Village in 1984. As I explored Sosaria and Ambrosia long into the night, I lost all track of time and space, and it seemed as if I'd been there but a few minutes before I sensed an eerie glow behind me, gently illuminating the entire room. Other than the Second Coming or a nosy New York neighbor with an incredibly powerful flashlight, I could imagine no other explanation for the way the one-room apartment slowly filled with a soft, warm light—until I finally tore my eyes from the screen, looked over my shoulder, and saw the sun rising over the apartments on the far side of the courtyard: I had played *Ultima* from sundown to dawn. When I finally collapsed in bed, I felt as if I were a wandering Paladin falling sleeping on a straw-filled mattress in a convenient hut in the wilderness. And when I awoke the next morning, rambled into the kitchen and made some toast, I instinctively reached for my silver-pommeled Dagger to spread some butter on it, so deeply had I been immersed in the myth and magic of Richard Garriott's epic fantasy.

Though I've been playing and writing about adventure games full-time since those days, first editing *Computer Games* magazine, then writing my *Adventure Road* column for several other publications, and finally publishing and editing *Quest-Busters: The Adventurer's Journal,* I have never had such an absorbing experience as my first outing in *Ultima.* It was more than the ornate graphics and eerie music that held my attention until sunrise, more than the variety of fascinating things to do in Sosaria, or the puzzles of the Moon Gates and the mysterious manifestations of the elusive city of Dawn—instead, the hypnotic attraction of *Ultima* emanated from the vision of its author as he created a fantasy world so intricately conceived and constructed that it seemed almost real.

As I delved further into the mysteries of *Ultima,* I noticed bits and pieces of reality woven into his tales. Paul McCartney, for example, turned up in *III,* just as a hotel in *II* was clearly named for the *Hotel California* of the Eagles' Grammy-winning song. I realized that when you can ascertain a programmer's favorite musicians by playing his game, that the game is as much a form of self-expression as it is a form of entertainment. Delving further into the *Ultima* tradition, I discovered it was Garriott's knack for working episodes and people and events from his own life into *Ultima* that bestowed it with a flavor and depth unparalleled by other role-playing games. After following the Way of the Avatar in *IV,* then discussing the saga with Garriott, I gathered that Richard Garriott virtually *is Ultima.* He has been writing fantasy games since a teenager, casting his friends as characters in the stories and weaving events from as far back as his childhood into the same tales. This Renaissance man of role-playing is as well versed in the lore of myth, magic, and the medieval as in the ways of science and the abstruse programming languages with which he so fervently finesses his fantasies into being.

Now, nearly six years after playing my first *Ultima,* I find myself peering into the world of *Ultima VI* on another computer, this time from a house in the Arizona desert. Lingering over the keys as I wrap up the final pages about the lands of Lord British and the legends and truth behind them, I turn and watch that same yellow orb rising over the peaks of the Rincons; then I head downstairs to fall asleep upon my straw-filled mattress in a hut in the hills of Britannia.

Acknowledgments

Introduction

By Lord British

Greetings illustrious Adventurer, and welcome once more to Britannia! But return thy Broadsword to its scabbard and loosen that clenched grip on your staff of yew, for these fair lands are imperiled by no plague of Orcs and Dragons, neither be they threatened by some Evil Wizard's feral spells. Indeed, nary a corner of the Realm lies in the slightest danger from the denizens of our most fearsome dungeons. But even though the land itself is safe and flourishing, you have been summoned to pursue your destiny in Britannia, and this time I have not one but a host of urgent quests that only a bold and inquisitive explorer such as yourself might fulfill.

Upon the discovery of a faded parchment scroll from the dusty lands of Zona, our most erudite scholars have labored for months to unravel its many mysteries and tales regarding the lore of this land and its King, myself. Rumors and myth, many have concluded these tales to be, while others hasten to believe such wild ideas as the story that I, Lord British, have another persona dwelling in the towne of Oztin in a chimerical country called Texas, on a world known as Urth, and that I travel back and forth between these bodies and worlds by means of a Magical Portal and a fabled Keyboard of the Occult. "Would I not be aware of this remarkable situation, were it indeed fact?" I asked of my advisors. Yet Cory the Conjurer rightly suggests I may have fallen victim to a Memory Cloud spell that would explain my inability to confirm or deny these provocative tales.

And while crisscrossing the mountains, valleys, and townes of Britannia in thy search for the answer to this riddle, keep also thine eyes alert for a certain Shamino, whom the legends in the Zona Scroll say is yet another incarnation of this entity known as Garriott of Lone Star. 'Tis furthermore advisable that ye seek out Dupre the Paladin and Iolo the Bard, whom similar tales also have Urthly counterparts who are associated with that mythical mage of the world.

Still more mysteries lurk within the pages of this ancient Scroll, perplexing stories hinting that one of the Realm's most esoteric legends, that of the Silver Serpent, is somehow linked to this Garriott. Since long before the Scroll of Zona made its way to our Lycaeum, it has been whispered that the silver amulet of the mighty Earth Serpent I wear about my neck is not of this land or world, but arrived from another far away in time and space. Is the Serpent truly a secret symbol for a bizarre cult of snake worshippers who kidnapped this Garriott while he was still an impressionable lad? Do its sinuous, shiny coils suggest instead a reference to the kundalini rituals practiced by the yogis and Southernus Californians of this place called Urth? Or is the truth even stranger than these weird explanations for one of our land's most pervasive myths? Seek ye out the stone cold facts behind this shimmering veil and waste not a moment. For until the truth be known to all, I must regretfully remove the silver amulet from about my neck and relinquish it to a vault deep within the winding passages of Hythloth.

While pursuing the source of the Silver Serpent's true origin, also keep thine helm open wide enough to detect any evidence of these Monty Pythonites whom the Zona Scroll says predicted the ominous appearance of Minax's Time Doors in Sosaria so many twin moons ago. Our Ankh, symbolizing the Way of the Avatar, and the very Codex of Ultimate Wisdom itself—these and other symbols and icons of our mythology and culture, it is clear, have long been misinterpreted by the

peoples of Urth, and we shall trust in your skills to sort these out and set them straight.

Upon fulfilling these quests, gird thy loins for a journey to the world this Garriott of Lone Star calls home. There thou must infiltrate Garriott's "Tower of Knowledge" in Oztin and unearth the secrets of his reputed powers to make and shape new worlds at will. From the shadows of his castle, observe closely his allies and party members, said to participate in mystical rites unlike any known by our most powerful Wizards, ceremonies involving small square "scrolls" of a thin, flexible substance and the Keyboard of the Occult to which I have already alluded. If this tale turns out rooted in reality, it will undoubtedly lead to even more perturbing questions; do not, therefore, be dismayed or surprised if thou be sent back to Urth to ferret out more of this entity's mystic abilities and powers.

Look closely into the chronicles of Alfred the Sheboyganite and his many missions and quests that unfolded in this and other lands, for it is rumored that he, too, hops back and forth between worlds. Though these quests occurred in the near and distant past, avail yourself of the appropriate Time Doors and journey back to those days, where you may pry loose the bricks concealing the solutions to any riddles and quaint conundrums that may block your path on any such quests yet unachieved by yourself, noble wayfarer.

While on the path of these all-important quests for lore, consult the following pages, recently translated from the archaic Zona language to our own, for here you may find the answers to these troubling questions without so much as soiling thy boots. Upon acquiring this coveted knowledge, return to my castle and thou shalt be rewarded with more than mere gold and jewels; for knowledge gained, by name shall be etched into the Book of Scribes and Scholars, for all to see.

Part I

A Decade in the Dungeons:
Ten Years of *Ultima*

"There was a certain kind of magic about my life during the early days that makes the first three Ultimas *very special. I did those entirely on my own, and there was something magical about them being utterly my own creation, utterly my own vision. I really lived to work on those games."*

Richard "Lord British" Garriott

Chapter 1
From the Lone Star State
to Sosarian Shores
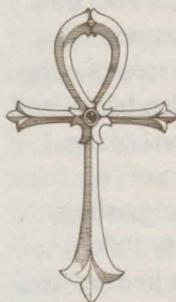
Looking up from the stack of tests on his desk, the teacher stared out the window at the patch of yellow clouds, wondering what to do about Richard Garriott. The problem was not that Garriott was a troublemaker, consistently late to class, or even doing poorly with this grades. No, Garriott's dilemma was his determination to learn more about computer programming at Clear Creek High School, for the little school in Nassau Bay, Texas had but one programming class to offer its students in 1977. In the first semester of his sophomore year, Garriott had stormed through the BASIC programming course as relentlessly as the nearby Brazos River rushes into the Gulf of Mexico. Making up his mind to master the arcane art of programming, he and a couple of equally enthusiastic students had proposed a novel

plan for doing so in a school with no more computer courses in its curriculum. What would happen, their teacher now pondered, if the faculty approved the trio's plan to organize their own programming course with no teacher or supervision of any sort? Since Garriott and the others had always participated in local science fairs and were involved in various school activities, he finally elected to support the idea at the next staff meeting. Millions of adventurers around the globe can thank him for that decision, for it was Garriott's high school programming project that sparked the genesis of the *Ultima* saga.

It was a dream class. "All we had to do was come up with a programming project," Garriott recalls, "and as long as we could show we'd made progress on it at the end of the semester, we would get a guaranteed A." It didn't take the 16-year-old long to find a suitable subject. In the late 70s, paper and pencil role-playing games like *Dungeons & Dragons* and *Tunnels and Trolls* had hijacked the imaginations of countless college and high school students. Around the country, they stayed up far later at night rolling ten-sided dice and dealing death to Orcs than they did writing term papers or book reports, and Garriott was no exception. About the same time he was attracted to role-playing games and started taking computers seriously, he also happened across fantasy literature like J. R. R. Tolkien's *The Lord of the Rings* and C. L. Lewis' *The Chronicles of Narnia*, two of his earliest and most significant influences. Tolkien's *Rings* trilogy told how a group of Hobbits, Elves, and other fantasy folk banded together on a quest for the Ring of Power, a journey that took them into the land of Mordor to track down the evil Sauron. *Narnia* centered on traveling to and from another world by entering a closet made of a peculiar wood from that world. Both left indelible impressions on Garriott's future works of computer fiction.

The Moment of Illumination

Recalling his first serendipitous steps upon that long and winding road from Texas to Sosaria and Britannia, Garriott clearly recalls the moment of illumination that heralded his life's quest: "I was suddenly introduced to *D & D*, fantasy and computers, and something went 'click, bang!'—that's when I realized I'd found something I considered fun, that I'd found my own thing to do—something I had obviously been programming myself to do since I was a child." When his teacher agreed to Garriott's unorthodox proposal to write fantasy role-playing games on the computer as his programming project, neither had any inkling that it would eventually span his last three years of high school.

Deeper influences stretch back even further in Garriott's life. From his father's background came a leaning toward logical thinking, which led to an early avocation and eventually a profession in computer programming; from his mother, he acquired a flair for the artistic, which was soon expressed in the computer games he created in school and at home. His father Owen was an astronaut aboard the Skylab 3 mission whose highly technical background in science and engineering played a major role in Richard's daily life. Growing up in the insulated world of the community of NASA scientists, engineers, and technicians who worked at the Johnson Space Center 30 miles south of Houston, Garriott naturally adopted a logical outlook. At the same time, his mother's career as a professional artist opened Garriott's young eyes to a world of evocative imagery that stimulated his imagination as much as his father's career did his logic. Helen was "always doing all kinds of bizarre stuff," according to Garriott. Once he and his brothers discovered a little family graveyard in the woods near their house, and the whole family was touched by the epitaph on the tombstone of a little girl named Rachel. So moved was his mother, she shaped a similar headstone of pottery and put it in their backyard.

His fascination for myth and legend goes back to Helen's lessons on Indian lore, which she taught at summer camps. Garriott's earliest memories as a child include dressing in Indian costumes and doing the Comanche raindance and other elaborate performances in public, all of which he and his brothers and sisters did regularly. While he loved pirate films like *The Three Musketeers*, Errol Flynn movies, and similar tales of adventure, he didn't spend all his time daydreaming. He joined Junior Achievement and ran small businesses, became an eager Cub Scout and Boy Scout, and entered every Science Fair each year of his life from kindergarten to high school (one wall of his Austin home is lined with trophies and awards from those days). It was inevitable that the twin preoccupations of his youth—science and fantasy—would someday beckon him to fashion imaginative worlds like Sosaria and Britannia on the computer.

The Early Days of Computer Games

In those pre-*Ultima* days, computer games were primarily played on teletype terminals rather than on the actual mainframe computers, which only schools, big business, and government agencies could afford. Students at the school in Nassau Bay, for instance, worked on a teletype terminal tied into a massive Cyber computer in downtown Houston. Unlike contemporary computer gamers, the player gripped no joystick, rolled no mouse about the desk, and saw not a single computer graphic, for they didn't even have monitors on which to display pictures or even text. There was just the teletype keyboard, where a player would punch in his next move—"go north" or "examine rock"—and wait while it was transmitted via the teletype's internal modem to a remote mainframe for processing. Rather than seeing the results displayed in high-resolution color, players watched them roll out on long pieces of paper after the mainframe transmitted its responses to the latest moves. Most such games consisted solely of text. Since real graphics were impossible, any necessary

images had to be "illustrated" with lines of alphanumeric characters, the same way many online games are played today on Delphi, GEnie, and similar networks.

The first all-text adventure game, William Crowther's and Don Woods' *Adventure*, was played this way, and so was *Zork*, written by a band of students who later united under the Infocom banner. President of a Boy Scout Explorers Computer Post at the time, Garriott says he payed computer games "on some mainframes at the Lockheed facility where the Scouts met. It was very different from the kind of thing I wanted to write, which was something very freegoing, with lots of options available to you, as opposed to a 'node' game like *Adventure*. At that time, I didn't know of any other games that would let you go anywhere and do anything." While *Adventure*-style games set the stage for Infocom's success, virtually no role-playing games existed on mainframe networks other than one on the Plato educational system. (The fundamental difference between the two different game systems lies in the adventure game's focus on logical puzzle-solving and the role-playing game's emphasis on character development as defined by traits, skills and other elements.)

Pursuing the Vision

At the same time invisible radioactive gases spiraled from the Three Mile Island nuclear reactor in Pennsylvania, Garriott pursued his vision from the teletype keyboard at Clear Creek High.

"The games I wrote were very, very simple little dungeon games," he reminisces. "Every time you took a step, the program would have to reprint the whole thing on the computer. But each time I wrote one, I learned a lot about writing it. Then I'd throw away the old one, turn around, and write a whole new one. I did this over and over, calling them number 1, number 2, and so on, until I was up to number 28 by the end of my senior year."

While preparing to enter college, he went to work at a Computerland store and had his initial encounter with Apple computers in the summer of 1979. For the first time he saw the possibility, he says "of putting graphics into my little fantasy role-playing games. I had seen an early low-resolution graphics game called *Escape*. It was a simple maze game, but it inspired me to figure out how 3-D graphics worked. I spent that summer working on high-resolution 3-D graphics and adapting them to yet another version of my little role-playing game—and wrote what was never intended to be published, *Akalabeth*." Perhaps alluding to Crowther's and Woods' classic, Garriott subtitled the game "Beyond Adventure."

Having written *Akalabeth* just for fun, Garriott never dreamed of selling the game. But the owner of the computer store, convinced that *Akalabeth* had commercial potential, motivated the teenager to publish it himself.

"This was in the days when state-of-the-art packaging consisted of Zip-loc bags and a sheet of photocopied instructions," Garriott says, casting light on a near-forgotten era. "I spent what was a lot of money for me at the time—$200!—getting a little manual and cover sheet printed up and getting a bunch of Zip-loc bags. I was just planning to sell them through the store."

He sold less than a dozen over the counter at Computer Land, but one of them made it all the way to the West Coast and into the hands of California Pacific, one of the seminal computer game companies.

California Pacific had published the early programs of Bill Budge, who gained fame for *Pinball Construction Set* in the mid-1980s. In those days, Budge was considered *the* author of computer programs. During his formative years, even before *Akalabeth* was published, Garriott thought of Budge as his original mentor, and he still does. "So when I got a call from California Pacific," Garriott's voice grows excited at the memory of his big break, "I was extremely ecstatic. Not just to be published, but

also because it was by Budge's publisher. They said there were tickets waiting for me at the airport. I flew to California, signed a piece of paper, and they started mailing me money! And that was very much the kind of lucky circumstances that led to my game being published." *Akalabeth* arrived in the nation's fledgling computer stores about the same time thousands of Iranians showed up at the U. S. Embassy in Tehran, stormed the walls, and took 90 hostages.

Garriott's first published game was a one-player scenario with activities that primarily entailed exploring dungeons, fighting monsters, and scooping up treasure. Though a relatively simple affair, its popularity with the world's first computer gamers—who bought over 30,000 copies at a time when most people in the country didn't even know what an Apple computer looked like—turned *Akalabeth* into one of the classics of the Golden Age of Computer Games. From 1978 to 1981, it was voted as one of the top 30 games by *Softalk Magazine*, an Apple-only publication that foreshadowed the diverse array of computer magazines on the shelves today.

Though Garriott had a hit on his hands, he was not alone in this brave new world of fantasy gaming. Other budding designers across the land had also set their sights on transporting paper and pencil role-playing to the realm of the home computer. In 1978, Robert Clardy's *Dungeon Campaign*, the first commercial role-playing game with low-resolution graphics, surfaced in Seattle on the Apple computer. In New York, the makings of the first *Wizardry* maze materialized in 1977, though the game itself wasn't published until 1981. A California neighborhood now known as Silicon Valley saw Jon Freeman and several programmers he'd met playing *Dungeons & Dragons* get *The Temple of Apshai* underway in the summer of 1979.

Garriott had numbered each of the original games that he published himself and still keeps the rest of the *Akalabeth* packages in his castlesque home on a tree-lined cliff overlooking

Austin. Copies are still available from some Apple users' groups, but *Akalabeth* isn't sold commercially. When it was on the market, *Akalabeth* "made enough money to pay for my college education," he recollects. "Of course, I quickly squandered it and didn't actually save it for school. But with that as an example, I said, 'Gee, if what I'm doing for fun can make money, it's logical to write a much better game *intended* for publication.'" With this insight, the doorway to another world opened before him and Garriott strode through it as boldly as an adventurer stepping into one of *Ultima's* Time Doors or Moon Gates for the first time.

Chapter 2
The Closet Game Designer
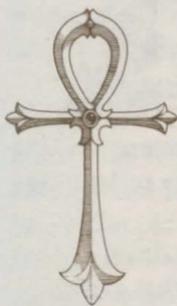
Garriott grabbed a handful of button-downs from the closet and tossed the shirts into a cardboard box. Shoes, boots, socks, and jeans he stuffed into another box, then hauled both boxes into his bedroom and placed them neatly beside the window. Sweat trickled down his temples as he returned to the closet and removed more clothes, belts, and assorted belongings until it was empty. Next he dragged a wooden desk into the closet and set it up alongside the wall, where it occupied most of the small room. Finally, Garriott carried several boxes into the closet, handling these far more gingerly than he had those stuffed with clothes. From the first he slowly pulled out an Apple II computer; he held it by the sides and let the box fall away from beneath it. A disk drive, a monitor, a dot matrix printer—all the quintessential components of a home computer system slid free of their containers and found their places in the closet in Garriott's upstairs bedroom at his parent's house in Houston.

It was in the fall of 1979 when he moved inot the closet and commenced work on the first *Ultima* while in school at the University of Texas. Coincidentally, the plot of one of his favorite fantasy novels, *The Chronicles of Narnia,* centers on a closet made of a peculiar wood from another world. That closet enabled people to travel back and forth from Earth to Narnia and other strange lands across the reaches of time and space, lands where magic worked as well as science, sometimes even better. Garriott's closet became his doorway to another time—his decade in the dungeons, as he would devote the next ten years to designing mazes and towers, making up magic spells, myths and story lines, and ultimately redefining the role-playing game.

Garriott practically lived in that closet in the early days, learning to program and simultaneously writing his first games on the Apple: "I would literally work so late into the evening, struggling with a problem I hadn't been able to solve, like a bug I couldn't find or a routine I couldn't figure out how to write, that I'd fall asleep on the computer," he says, and to this day Garriott works long into the night during the final stages of each *Ultima.* "I'd awake the next day, still at the terminal, and often the solution would become apparent almost immediately. My girlfriends, who understood what was going on in those days and were a big part of my life, and who always showed up in the games (as well as a part of the later games, starting with *Ultima II),* would sit right behind me in the same chair at my desk.

Resting her head on Garriott's shoulder, she would "just sit there watching me program a few lines, then test it, program a few lines and test it, and watch the creation unfold. So it was really very much a way of life for me during those first *Ultimas,* and it overtook all the people around as much as it did me."

The First Tile Graphics

One of those people was Ken Arnold, a friend of Garriott's for whom a town was named in the game and who still composes music for the *Ultimas.* "He knew machine language and worked in the same Computerland store," Garriott elaborates. "Ken actually did all the machine language programming on it so we could use tile graphics. If you think back to the days of the original *Ultima,* I don't think there was a game that used tile graphics at that stage. So I believe that we, principally Ken, invented file graphics for *Ultima.*"

Tile graphics, so called because they're square and placed on the surface of the game world one by one like pieces of tile, are essentially little pictures of everything that appears in the game. Several tiles that look like grass-covered land, for example, would be placed side by side to fabricate a meadow, while a string of other tiles would form a mountain range. "We had to actually enter all the shapes in HEX," Garriott says, detailing the primitive process. First he and Arnold would draw them out on graph paper, then convert the graphs into binary, which in turn had to be reversed because the pixels appeared on the screen backwards. After converting it into HEX, they entered the tile as data, stored it on the disk, and then ran it to see if it looked right on the screen. "We had no editors or anything, so it was a very painful thing. But the tile graphics quickly became one of the distinctive things about *Ultima." Akalabeth's* 3-D subroutine for the graphics driver, which depicts the view down a dungeon corridor as it would be seen through the eyes of a person actually inside the hall, was the only element of that program that

went into *Ultima I*. It was written in AppleSoft BASIC, like the rest of the program, with just a few of Arnold's machine language subroutines thrown in.

The First *Ultima*

Garriott worked on *Ultima* throughout his freshman year in college and completed it in little more than a year. Challenging the player to slay the evil wizard Mondain, who had unleashed a wave of Orcs, Kobolds, and other fiends on the land and precipitated the first Age of Darkness, *Ultima* became a one-character game that unfolded across the four continents of Sosaria. The interface consisted primarily of 26 commands that corresponded to the letters of the alphabet (*A* to Attack, *I* to ignite a torch) and were executed from the keyboard, a system that remained essentially intact until 1990 and the release of *Ultima VI*. Sold in shops, ten magic spells allowed the adventurer to hurl Magic Missiles at monsters, Unlock treasure chests, and Blink (teleport) about the landscape. Before the main quest could be fulfilled, the player had to complete a round-up of mini-quests that included rescuing a Princess, earning the rank of Space Ace in a mini-arcade sequence in deep space, and slaying a Gelatinous Blob and monsters lurking in the depths of the dungeons. Aerial-views showed the forests and hills and towns, while 3-D mazes were the site of battles with Orcs, Kobolds, and other fiends in the labyrinths.

Though his father was an astronaut, Garriott says this was not the reason he put a space ship and interplanetary travel in *Ultima*. He simply wanted to fill up the disk, using every bit of the computer's potential, with every fun thing he could imagine that would fit into a game. Garriott originally wanted to call it *Ultimatum*, but that name had already been trademarked by a board game, so the publisher cut it down to *Ultima*, which Garriott liked even better. It wasn't called *Ultima I*, because no one even guessed there was going to be a sequel when it was

published by California Pacific in 1980, the year Mount St. Helens erupted in Washington and John Lennon was gunned down in New York.

The Origin of Shamino

When it came time to promote the new product, Garriott drew on his experiences in the Society for Creative Anachronism. While he considers the SCA as important an influence as those of his high school and childhood days, Garriott didn't hook up with this unusual group until his freshman year at the University of Texas. His fondness for fencing, which he'd learned and practiced in summer camp as a teenager, led him to join the college fencing club, where he heard from other members that SCA was also involved in fencing. He quickly tracked down some SCA members and, less than six months after entering college, had linked up with another group who shared his interest in the days of swords and kings, dragons and wizards.

SCA members address each other by special names that must be based on genuine historical figures, and Garriott cast about for an appropriate name. He found it unexpectedly while riding his ten-speed bicycle. Looking down at the name *Shimano* on the gear shift, he misread it as Shamino and immediately made up his mind. Fortunately it turned out that such a name appears in the history of France's medieval era, so he was soon called Shamino by his cohorts in SCA. While writing *Ultima I,* he not only put himself in the game as Lord British, but also—and still unknown to virtually every adventurer who ever explored the lands of Sosaria—appears there as King Shamino. (It was in a

college summer course that he acquired the nickname Lord British: fellow students thought his habit of saying "Hello" rather than "Hi" made him sound British, and since he'd been born in England, the name stuck.)

"One of the things SCA members do is dress up in medieval garb and go out in public," he explains. "By the time *Ultima* was released, I was used to going out in public 'dressed funny,' so I didn't mind doing it to promote the game. The first time was probably at the West Coast Computer Fair in California when *Ultima* was released. Dressed as Lord British, Garriott donned a leather tunic, a small cape, knickers and boots, strapped a sword on his side, and slipped a filet (a thin crown-type affair) on his head of straight, sandy-blond hair. To this day, Garriott is an enthusiastic SCA member who occasionally goes costumed to industry events to promote *Ultima*. (At a Consumer Electronics Show in Las Vegas in 1989, Lord British oversaw a series of swordfights staged by other SCA members when the Nintendo version of *Ultima III* was released.)

Just as *Akalabeth* had scored well with the growing legions of computer gamers, *Ultima* took off like an out-of-control Air-car, selling more than 50,000 copies. By the middle of the decade, Garriott regained the rights to the game from California Pacific. He had it rewritten in assembly language by programmers at his own company, ORIGIN Systems, in the winter of 1986. Following Garriott's example of naming characters and places in the games for his friends, they changed the names of some of the shops to those of their own friends, but the most notable differences are in the introduction and in the new version's more sophisticated graphics and accelerated gameplay. Aside from these aspects, the version in *The Ultima Trilogy,* which also includes *Ultima I* and *II,* remains true to the original.

Chapter 3
Through the Time Doors
and Back
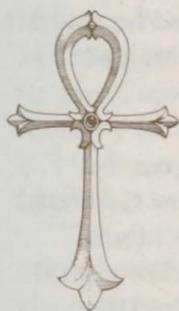
Temporarily stranded in Italy in 1792, Randall the dwarf unfolded the big blue map he'd stolen from the Evil One and studied the white circles, triangles, and dotted lines that unveiled the locations of the intermittently appearing "time holes" his gang exploited in their time-traveling crime spree. He discovered that a time hole would materialize momentarily just two blocks away and ordered his party to loot the ornately outfitted palace where they had been dining with Napoleon, who had just passed out drunk at the table. Gleefully they piled gold chalices, jewels, and coins onto a fine tapestry ripped from the wall. Then they folded the corners inward to form a bulky bundle, and bolted down the street with their treasure. A dozen soldiers were hot on their little dwarf heels as Randall reached the indicated spot where a thin gleaming slab of light arose from the cobblestone. The others followed as Randall leaped headlong into the "door" a nanosecond before it slammed shut, making their getaway in the nick of time.

In back of the theater, the ushers pointed at Richard Garriott and several of his friends and whispered in the dark, "They're back again!" None of the ushers, not even the silver-haired manager, had ever witnessed such a curious phenomenon, for every time the dwarf held up the map, Garriott and his friends whipped out notepads and started copying the time hole connections. After the credits rolled at the end of the film, revealing the map fully for the longest duration, Garriott and his cohorts got up from their seats but didn't leave the theater. Instead, they stocked up on popcorn and sodas and returned right away to watch the movie over and over, scrambling to record more of the map each time it was displayed. Garriott organized such field trips to the $1.00 matinee in 1981 until he had enough rough sketches to assemble a composite version of the time map. (Videocassette players weren't on the market then, so he couldn't just freeze-frame the map scenes and copy them at his leisure.)

A Major Influence

The ushers couldn't have imagined what was going on, but anyone who has played *Ultima II* can clearly see how Garriott's fascination with a comedy adventure film written by Monty Python veterans Terry Gilliam and Michael Palin and produced by the Beatle's lead guitarist, George Harrison, inspired the game's most distinctive feature: the Time Doors that connect five continents of Earth, each located in a different era. For regardless of how original, inventive, or talented the individual, no artist in any field creates his or her works totally free from the influences of others, and Garriott credits movies and television with having far greater influence on *Ultima* than by any other media. In fact, he doubts he has even read more than 30 works of fiction in his entire life, and says Tolkien and C. L. Lewis are the only fantasy authors on that slim list. "I'm definitely a product of the video generation," Garriott declares, "and as brainless as movies and television may seem, that's where I get my entertainment."

The Time Map

Garriott had become so intrigued with Randall's stolen time map that he resolved to learn if any logic lay behind the map of the time holes. He finally ascertained that the holes' markings don't match the movie at all, but found that the basic idea of the map served its purpose as a plot device. "I was really taken with that concept, moving through time and using the cloth map, so *Ultima II* was directly inspired by *Time Bandits*," he divulges. "Their actual story lines were totally unrelated, but the concept of Time Doors, of having a map showing the connections, and being able to move back and forth through those time periods was inspired by the movie." He was already at work on *Ultima II* when the film opened, and the game was released less than a year later. Synchronistically, Randall's party was headed for a showdown with The Evil One, a sinister sorcerer whose home lay in the exact center of the Time of Legends—a castle ominously called the Fortress of Ultimate Darkness. Garriott, perhaps struck by hearing at least part of his game's name spoken aloud in the film, named one of *Ultima II*'s time zones for the Time of Legends.

"The cloth map that's included with each *Ultima* came from *Time Bandits,* too," he goes on, "it's one of my favorite things. Provided in each copy of the game, the cloth map showing the continents and Time Doors eventually became the series' trademark and is still revised and included in every sequel." (Figuring out the mysteries of the Time Doors' destinations became a central puzzle in *II*, and continued to evolve throughout the series, as they became Moon Gates and Moon Stones in later *Ultimas*.) "And because it's *so* expensive," Garriott exclaims, "I have to fight—even within my own company—to get the cloth map included in the box. It adds so much to the cost, that we'd be appreciably more profitable if we didn't put it in." It wasn't long before similar maps started turning up in the packages of other role-playing games, so this near-universal element of the

genre can be traced back to *Ultima II*, *Time Bandits*, Monty Python, and the Beatles.

Linking the Sequel

Though it was technically a sequel, Garriott says the plot of *II* had nothing to do with the story of the first *Ultima*. "*II* had to be on Earth, as opposed to my personal fictitious world of Sosaria," he explains, "since time travel wouldn't make sense without a frame of reference for the player." (He also needed Earth's phenomenon of tectonic plate movement to show Pangea, the single land mass from which the other continents evolved as time rolled along.) But Garriott later hit upon a plausible connection with which to link the two stories: a scenario in which Mondain, the villain of Sosaria in *Ultima*, had taught his sorcerous skills to a young apprentice, Minax, whose mission in life was to seek revenge for her master's death in *Ultima II*.

Since the adventurers who slew Minax's mentor had traveled to Sosaria from Earth, she unleashed waves of Orcs, Demons, and other horrors on the planet, bringing about the Second Age of Darkness in an assault that climaxed with the Earth's destruction in the year 2011 A.D. But her unprecedented magical assaults wreaked havoc even she

had not anticipated, ripping through the underlying foundation of the universe and opening convoluted passageways through time and space, passages linked by the Time Doors that mysteriously materialized across the face of the planet. A few people managed to escape destruction by entering the Time Doors and escaping to earlier eras. Among these was Lord British, who put out the call for a hero who might vanquish the beast by unraveling the riddle of the Time Doors in order to locate and destroy Minax in her lair before she executed her plan to destroy Earth. Time travel played a far more important role in the sequel than in the original *Ultima*, and with the introduction of Time Doors that functioned much like the "wormholes" theorized by quantum mechanics, Garriott had blended science with fantasy even more effectively in his second *Ultima* than in the first one.

Writing in a New Language

Just as he had assimilated the fine points of the BASIC programming language by writing his first games on his high school's teletype and refined those skills while writing *Akalabeth* on his Apple at home, Garriott mastered the more intimidating "machine language" in an even more intense trial by fire as he wrote *Ultima II*. Tom Luhrs, a Californian who wrote *Apple-oids*, a game similar to *Asteroids* but which had the player shooting at apples floating around in space rather than meteors, was working at California Pacific at the time. He assisted Garriott in his drive for fluency in a programming language expressed in strings of 0s and 1s rather than the more comprehensible GOTOs, FORs, and NEXTs of BASIC. "Tom was the person who kind of held my hand through machine language as I started writing *Ultima II*," says Garriott. "Literally the first lines of machine language I wrote were the first lines I wrote for the game; I went cold turkey straight into *Ultima II*—it was rough."

Another World

His mastery of machine language granted Garriott the ability to take advantage of the Apple's power, and with *Ultima II* he unfurled a world in far more detail than in his first games. The program and data spanned the surfaces of three disks; the land itself was significantly larger than that of Sosaria. Garriott doubled the number of tile graphics, the "building blocks" of which the world was composed. Rather than seeing the entire layout of a town displayed onscreen at once, the player looked at only a small portion of it at any one time. When his character moved along the cobblestoned sidewalk, the rest of the town "scrolled" along, bringing more of its shops, hotels, and pubs into view. Ocean waves were animated, as was combat, which was fought on the surface when randomly generated monsters popped out of nowhere.

Ultima I's Air-car, which would fly over land and water but not trees and mountains, was replaced with an Airplane that would not only perform these tasks, but did so to the hum of a more authentic sound effect. Objects could be more freely manipulated by the player, and the combat and magic systems made these aspects of game play far more engaging this time around. While the interface changed little, still relying on essentially the same 26 commands, Garriott's upgraded magic system reserved certain spells for specific character classes. Clerics and Wizards could cast some of the same spells, but only a Wizard could Kill, and Prayer was available only to Clerics. This nuance gave players more to consider when choosing their characters at the game's outset.

Finding a New Publisher

When California Pacific went out of business in 1981, Garriott was already working on *Ultima II*. "I realized I was a free agent and needed to find a new publisher," he remembers, "and I was very pleasantly surprised that practically everyone in the industry

soon called. This was something I hadn't really been aware of until then, that *Ultimas* were already so well known that other publishers were aware enough of me to find me." Finding a new publisher was not Garriott's latest challenge—it was finding the *right* publisher for such a unique product as *Ultima*.

As Garriott puts this phase of *Ultima's* history in perspective: "You have to know what the industry was like at that time— besides most everything being packaged in Zip-lock bags, practically all the games were arcade game knock-offs, which from a programming standpoint took two or three months to develop. And I was already writing *Ultimas* that took me one to two *years* to develop. So I was much more personally tied to that product as to how it would be presented to the public. In my mind, I already had equated it more like having a baby than making a model. So I said, 'Well, guys, I'm glad you're all inter- ested,' and told them what I wanted. I wanted my game in a box, I wanted my game with extensive documentation, and—most of all—I wanted a cloth map. As soon as I made that statement, every publisher but Sierra On-Line dropped out. They were the only company that would stand by me and say, 'Hey, we under- stand what you're doing, and we'll agree in the contract that you have a box and a cloth map and the whole bit.' So the whole reason I moved to Sierra was because I wanted a cloth map."

Sierra, who produced the first commercial graphic adventure, *Mystery House*, and is now best known for their *King's Quest* series of 3-D animated graphic adventures, released *Ultima II* in an oversized box and with the handsomely produced cloth map Garriott coveted. *Ultima II* immediately established the state of the art for computer role-playing games and was soon widely emulated by other designers. In addition to achieving critical acclaim, the 1982 sequel sold over 50,000 copies then, a figure that earned it Certified Silver status and an accompanying plaque from the Software Publishers Association. By now nearly 100,000 have been sold.

All in the Family

Garriott had spent almost two years writing *II*, longer than it should have taken because he was also attending college at the time. "It was funny, because what I was doing purely for fun was already making four times as much as anyone else in the family, even when I was still in college." The rest of Garriott's family borders on being over-educated. His father has multiple doctorate degrees and has been a university professor as well as a NASA astronaut. (It was while his father was on sabbatical from Stanford University and living in England for a year that Richard was conceived and born in Cambridge, England, in 1961.) Helen, his mother, earned her masters in Humanities and a Bachelors in Fine Arts. His older brother Robert graduated from Rice University with a Bachelors in Electrical Engineering, and attended M.I.T. for his Masters in Engineering Economics and another in Finance from M.I.T.'s Sloan School of Management. Randy, the family's eldest brother, is a medical doctor, and Richard's younger sister has a Masters in Nutrition.

Garriott, with the rest of his family accomplishing so much in college, felt torn between staying in college and dropping out to concentrate on *Ultima*. Confronted with the choice of continuing his education on campus or focusing on a blossoming career writing computer games, he dropped out after two-and-a-half years: "Leaving school was a big decision for me, and it affected my life dramatically. But after *II* it became very clear that for me to maintain my position in the marketplace, I couldn't stay in school. Each *Ultima* was riding a wave of success built upon its predecessor, and if I were to quit for awhile, I knew it would be very unlikely for me to be able to pick it back up. So I officially dropped out of the University of Texas in 1982." Though he never returned to college on a full-time basis, he did attend the University of Houston part-time through the first part of 1983.

Chapter 4
The Exodus to ORIGIN
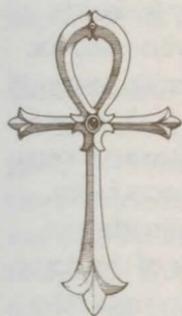
His experiences with California Pacific had taught Garriott that he might someday have reasons to part ways with future publishers, so he was careful to ensure he retained rights to future games in the series when he signed with Sierra for *Ultima II*. That's why the contract didn't include an option for Sierra to publish the sequel, the reason a whole new contract had to be agreed upon for *III*. But problems cropped up right away, and the thorniest one was rooted in his *Ultima II* deal with Sierra. That contract hadn't even mentioned royalty rates for an IBM version, because the IBM personal computer didn't exist when the contract was written. Unfortunately for Garriott, his original contract had assigned all publishing rights for *Ultima II* to Sierra, so he couldn't take an IBM version to another publisher. As Garriott recalls, "Sierra said if I wanted an IBM version that would benefit me as well as them, here's the deal, take it or leave it." Although the royalty rate was not as good, Garriott accepted. "I could have turned it down," he says, "but then there would never

25

have been an IBM version. So I got some money from it, as opposed to not making any."

When this feeling seeped into negotiations on a contract with Sierra for *Ultima III*, Garriott says his brother suggested forming their own company: "Why look elsewhere?" Robert rationalized. "Let's just do it ourselves." "Robert's been an entrepreneur since birth," says Garriott, "and had graduated from Sloan about the time I'd begun working on *Ultima III* and was beginning to fall out with Sierra." Without the introduction of the IBM personal computer, *Ultima III* might also have been published by Sierra, and the Garriotts might never have formed ORIGIN Systems.

Richard, Robert, their father, and Chuck Bueche (who had done the Atari 800 version of *Ultima II* for Sierra and appears as Chuckles the clown in several *Ultimas*) founded the new company in 1983 with $70,000 of personal assets, mostly Richard's. Their timing could not have been worse, for 1983 witnessed the software industry's first slump. Distributors were turning away products because store shelves were cluttered with junk, sales were dropping dramatically, and everyone from software companies to computer magazines were going out of business faster than the Marines hit the beaches as they invaded Grenada that fall. ORIGIN's only prayer was the recognition factor of the name *Ultima*, which was already well known to the public, retailers, and wholesalers in the business.

The Origin of ORIGIN
The first ORIGIN offices were situated in his parent's garage, where Garriott says, "We had a room over the garage, using this three-car garage to store disks, boxes, duplication equipment, and so on. Robert was the only businessman in the company." Robert functioned as president and business manager. Garriott's mother, Helen, was the entire art department, drawing the cloth map and other illustrations. The first official ORIGIN Systems employee, Jeff Hillhouse, was hired to take care of the packag-

ing, shipping, and office management. He is still with ORIGIN today.

Garriott remembered his dealing with other software companies when forming his own company: "When we founded ORIGIN Systems, we did so on a principle of fairness with our employees and authors." Garriott, who works as an ORIGIN author on a contract basis, is paid royalties based on the same rate as the company's other authors. "Everyone who writes for us gets the same contract and is offered the same deal," he explains. "Our royalty rate's a sliding scale: at the low level of sales, you get a low royalty rate. But automatically, if your product sells 100,000 units, your royalty rate dramatically exceeds the best rate offered by anyone else in the industry. That way ORIGIN is covered if the game's not a top seller, and the author reaps the biggest benefit if it is."

Back to the Closet

While Robert got ORIGIN Systems off the ground in their parents' garage in Houston, Richard returned to his familiar closet and dove into *Ultima III: Exodus*. "*Ultima III* was a big step technologically for the system," he emphasizes. "This was the first time I said, 'hey, let's look at the game a little more here and introduce a few new things to improve it.' But largely every *Ultima* up through and including *Ultima III* was a learning process more than anything else." As he honed his programming techniques during this process, Garriott's skills began to show in the way each new world was more and more intricately illustrated, more and more realistic, more and more interactive. All players could really do in the first game was walk around, attack, and buy things. By *Ultima II*, he'd worked out additional ways for the player to pick up and drop things, and to interact more with the surroundings; he'd also realized the value of giving people more characters to control as they explored his next fantasy world.

"Designing *Ultima III* was the first time I sat back and said, 'okay, I am tired of just one player running around alone,'" says Garriott. "*Wizardry* had multiple characters, so I needed them too, and with the introduction of multiple players came combat screens, which was another major change." That was when Garriott crossed the threshold into tactical-style combat in which the player maneuvers each party member individually and enjoys greater control over every aspect of combat. The *Ultima III* magic system not only revealed new spells, with a total of 32 this time (16 exclusively for Wizards, 16 for Clerics), but also introduced the practice of giving them Latin-style names like *Repond* and *Anju Sermani*. One spell's name was not even stated in the magic manual that accompanied the game, for the player had to discover it while exploring the land, its castles, towns, and dungeons—a type of puzzle effectively incorporated into subsequent *Ultimas*. For the first time in the admittedly short history of computer entertainment, Garriott's new game featured a complex musical score in which melodies and harmonies changed to fit the atmosphere in certain locations.

Return to Sosaria

Since the story didn't involve time travel this time, Garriott tossed Earth out the door and returned to Sosaria, once again ruled by Lord British, for the third game in the series. Twenty years after the death of Minax, the land was threatened by another monstrous entity whose acts of horror could be traced back to Mondain. Before his death, this foul fiend had shared the sheets with Minax and spawned an evil even greater than the two combined—Exodus, the head honcho in the Triad of Evil. While the goal remained essentially the same as that of all role-playing games of the day—to seek and slay an Evil Wizard—it was the manner in which it unfolded on the screen, its overpowering scope and simultaneous attention to detail and nuance, that made *Ultima III* a virtual synonym for the term computer role-

playing game. Rather than call a new game by such an unwieldy title, people found it easier and more effective to say "It's like *Ultima*."

For as Garriott's programming and design skills had multiplied tenfold, so had the degree of realism with which his fantasy worlds were constructed. "All the earlier *Ultimas* were essentially nothing but personal fulfillment," according to Garriott, "though the later ones still largely are. But in *Ultima II* and *III*, the principal—if not my sole—motivation was not to write successful commercial software, but to satisfy my personal interest in seeing how much better a game I could put together with the skills I'd acquired while creating the previous game."

Introducing Ambrosia

In addition to expanding the world of Britannia in terms of sheer size and the variety of terrain and other features, Garriott introduced a new land called Ambrosia, whose location was not depicted on the cloth map but left for the player to discover. To this land the players' adventuring party traveled in order to find shrines where they could boost key attributes such as Strength and Intelligence, foreshadowing the introduction of shrines, runes, and mantras, as well as that of new "alternative worlds" in *Ultima V*, with its Underworld, and the world of the Gargoyles in *VI*. The Time Doors of *II* were transformed into Moon Gates, which functioned as basic teleport gates connecting different locations around Sosaria. A particular Moon Gate, however, might send you to one of several locations, depending on the phases of the twin moons, which were animated and constantly shifting. Such puzzles are central to solving the long-range quest in all the *Ultimas,* and are likely to remain a key component of Garriott's game system.

Real-Life Fantasy Worlds

Ultima III, like the first two, consisted of everything Garriott could imagine wrapped into a single game, and he didn't consider the program finished until the disks were completely full. But in *Ultima III*, he says he "at least removed things that were too much of an undertaking to be included in one game, and things that didn't fit a medieval theme, such as space travel. At that stage, I was still writing them more for myself and my friends than for the public." That's why so many of Garriott's friends appear as characters in his games. He continues this practice, but now limits it to names or pseudonyms that fit the character in the story. In the first few games, he'd put in their literal names. Towne Linda in *Ultima II* is named for his younger sister, Helen is his mother, and Sir Robert in *Ultima IV* is his brother.

"Iolo and Gwenno go all the way back to the first *Ultima*, along with Dupre and Janna," Garriott says, illuminating a little-known aspect of how his fantasy worlds and real life are so closely intertwined. "Those are their names in SCA, which was where I met them. Except Shamino, which is me in the games." In the early days Garriott just used their names, but in later games he began to pattern characters after the real people's personalities. "Dupre is probably the best match," he says, offering an example. "His real name is Greg Dykes, a very close personal friend who is easily the epitome of chivalry and honor." For this reason, Dupre shows up in later *Ultimas* as a Paladin.

Other aspects of Garriott's personal life are interwoven throughout the fabric of the *Ultima* saga, which is as much a part of his life as it is a reflection of it. An attentive player can even figure out which musicians Garriott listened to while writing the games. In *Ultima III*, for instance, the town of New San Antonio is home to a "Hotel California" because Garriott (a hard-core audiophile whose home stereo boasts 4,500 watts of ear-splitting power) was listening to the Eagles at the time. And Paul and

Linda McCartney made a guest appearance in *Ultima III*. Garriott had run across McCartney's "Pipes of Peace" and "Tug of War" albums during that era and become so strongly attached to them that he put the McCartneys in the game. Other musical influences can be detected by anyone with a sharp eye and ear (though you probably won't get any secret lyrics or messages by playing an *Ultima* backwards, as with certain rock albums).

The End of Lord British?

Perhaps because he feels so deeply a part of *Ultima*, Garriott was less than pleased when he heard some players had finally figured out a clever way to kill Lord British in *Ultima III*. Garriott had always taken steps to safeguard his character in the game from being attacked; it was literally impossible to slay the monarch, for the program's code simply told it Lord British was impervious to any kind of assault within his castle. But some resourceful rebels schemed and dreamed until they discovered Lord British could be tricked into chasing the party of adventurers out of the castle. There they blasted the King with a cannon from a ship in the bay nearby—and since Garriott had not anticipated such devious tactics, the program didn't shield Lord British from this type of weapon. Though they had succeeded once, Garriott vowed it would be the last time, and despite a regular contest in *QuestBusters* challenging anyone to do so, no one has slain Lord British since *Ultima III*.

The Tale of the Silver Serpent

Every fantasy world has its own mythology, and one of the most pervasive and fascinating myths of the Lord British legend is the tale of the Silver Serpent. Garriott says the Serpent initially surfaced in *Ultima II*, but the legend's first prominent role as a game element came in *Ultima III*, when a Fighter in a Pub cryptically hints that "Exodus lies beyond the silver snake," insinuating that the quest is somehow entangled with rumors of a

Silver Serpent lurking in the hinterlands of Sosaria. After acquiring a ship much later in the adventure, the player finally sights the Serpent's icon from sea. The player will need to know the magic word that must be shouted there in order to get past the Serpent and to the area where he must one day find and slay Exodus. In later *Ultimas*, the Silver Serpent often shows up in the artwork on shields and other items, lending resonance to the medieval atmosphere of the game.

In *Ultima VI* we finally learn the source of the legend and the true nature of these silvery beasts, reptilian rarities who actually exist on the other side of the world from Britannia. They were the source of the myth, which was apparently spread by a Britannian dungeoneer who described the Serpent he'd spotted deep below the surface and elaborated on his yarn as he spun it in the pubs and inns of the land. The legend's true source, however, lies not in the catacombs of a fantasy land nor in some esoteric mythological tale of the real world, but in the faraway world of Richard Garriott's youth. In its own way, the Silver Serpent demonstrates once again how inextricably the worlds of *Ultima* and Richard Garriott are linked.

"When I was 11 or so," he says, "my mother—a professional artist who's into all kinds of art like pottery, oil paintings, etchings—was going through a silversmithing phase. I was always interested in what she was doing, and all us kids would get dragged into her latest project. I had been watching a Doc Savage movie, and I thought Doc Savage was really pretty neat stuff. The bad guys in this one were natives who all had this snake painted on their chests. It looked somewhat like this shape." He grasps the thin, shining silver snake dangling about his neck. Most people, upon meeting him for the first time and recognizing the Silver Serpent from the game actually hanging from his neck, assume it holds great significance "They expect it means I'm a member of some satanic cult group or something,

but it's really just something I thought was fanciful as a child, and it remained as an icon for me."

When the young Garriott went upstairs to see his mother's latest silversmithing project that day, he felt inspired to make something out of silver, too. Having seen the Doc Savage film just minutes before, he described the snake design to Helen. "She helped me work it out on paper, and I got out my little silver saw and cut this little guy out of silver," he says, as he touches the snake again. Deciding to make a necklace out of it, he dragged out one of his mother's belts. "It was made out of three strands of this chain. Each segment of it was about six inches long, and then there was just a small vertical post that connected the little segments of this stuff together. I said, 'hey, that stuff would make a great chain.' I guess as a kid I must have known it was a belt, but it looked like a useful tool to me more that anything else. So I got a screwdriver and separated enough chain to make this loophole here, then clamped it on with a pair of pliers. Of course, I got in trouble when my mother came back and found that I had sacrificed her belt to the cause, but it was a little too late to put it all back together.

"And this chain now resides around my neck 365 days a year, 24 hours a day—it has essentially remained there for the rest of my life ever since the day I put it on. There is no way to remove it without taking a screwdriver to it and prying open one of the links. For the first couple of years that I wore it, I actually had a link that I used to open and close a little bit. In fact, it is this link," he says, pointing out one that's a bit more separated and stretched out than the others. "After I realized I was wearing out something by doing that, I quit doing it, so this necklace has remained here ever since. It literally never comes off." (Fortunately, it doesn't set off metal detectors at the airport.) "The chain was gold-colored when I first put it on." Tugging at it, he reveals how "on the inside of the loops you may still be able to see a little of the gold color. As it wears off, the colors keep changing,

and now it rusts on my neck. I mean literally, every day. When I go, I may die of rust poisoning or something."

Young Richard Garriott the silversmith fashioned other pieces of jewelry in his mother's workshop, like a silver ring he also wears to this day, but the Silver Serpent remains among his most cherished possessions. As he wore it through the years, the Serpent assumed more personal meaning to Garriott, "like a childhood toy that you never lose." When he did lose the necklace once while pushing a friend's car out of the New Hampshire snow, Garriott was so obsessed with finding it that he had his friends hypnotized in hopes they'd recall the last place they'd seen him wearing it. Frustrated when that experiment failed, he says, "I was really truly getting desperate, and was about to say, 'Let's go find some psychics or something.' I'd had this thing around my neck for 15 years, and I had essentially given up hope—when two days later, it turned up in my brother's sidewalk. Marcy, his wife, was walking along the sidewalk, and turned it up from underneath some gravel where it had somehow slipped underneath." The only other time the silver snake left Garriott's neck was when his father carried it along on the Space Shuttle Columbia in November, 1983.

More than "Just Beating Up Monsters"

Just as Garriott had undergone major changes when he left the community of NASA engineers for college and discovered role-playing games, computers, and fantasy, he experienced an even more significant transformation with the release of *Ultima III* by his own company in 1983. "I tended to be an irresponsible person," he admits, "and at that time I was changing from being an extremely immature young individual to becoming a little more mature. I still don't consider myself an adult by any stretch of the imagination in real terms, but I was going through a real stage change."

One factor contributing to this change was that he got to read his own "fan mail" for the first time. In terms of feedback from the people playing his games, he'd been operating in a vacuum all these years, but now suddenly he found himself reading lengthy letters that made him realize they were doing more than just playing, that these people were so interested in *Ultima* that they'd taken time to put their thoughts on paper and send them to him. "That's a significant feeling," he notes, "to realize this is having some impact on these people. And with that comes, in my mind, a sense of responsibility. Because suddenly you realize it's not just beating up monsters, it's people interpreting what you're doing. And it was very interesting to see their interpretations, especially what they read into the games that's not really there."

The most radical misinterpretations of *Ultima* sprang from fundamental religious extremists who never even played the games. "They'd just see the box cover, particularly on a game like *Ultima III,*"he says, holding up the package with the big demon on the front, "and they go well out of their way to write and tell me I am corrupting the youth of America, that I should take all the disks out and burn them. One went on to call me a devil worshiper. What do you do with people like this? In my book, the answer is you can't do anything with them, because they are way out on the extreme.

"However, the first few of those letters that I got at the age of 22 really bothered me. You sit back and go 'gosh I know I'm not a wicked individual, I know I'm not teaching Satan worship, I know I'm not doing any of these things.' But the fact that somebody would think so bothered me. It made me want to call the person up and say 'look you're wrong, you just misinterpreted it.' But of course, it would do no good to do so. That just came along with a process that was all happening at the end of *Ultima III,* which is what I think of as a maturing process—or taking my work seriously, which might be a better way to look at it."

Sharing the Responsibility

The public took *Ultima III* seriously enough to buy over 120,000
copies, making it go Gold with the Software Publishers Associa-
tion and assuring the continued growth of ORIGIN Systems.
(Every *Ultima* since has been awarded the SPA's Certified Gold
plaque, signifying that audited sales surpassed 100,000 units.) It
also achieved critical acclaim and was voted into *Computer
Gaming World* magazine's Hall of Fame by its readers. But he
wasn't content to rest on his laurels, as did the authors of some
hit role-playing games. Encouraged by the public response and
always eager not only to push back the envelope of technology,
but to actually push back the carton in which the envelope had
been delivered and take a similar shot at the truck that brought
the carton, Garriott soon set his sights on a new goal: to create a
role-playing game *without* an Evil Wizard like Minax, Mondain,
and Exodus.

Chapter 5
Quest for the *Quest of the Avatar*
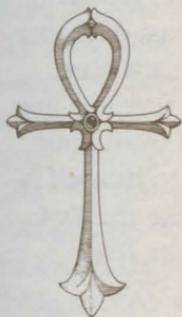
Into the closet of his New Hampshire house Garriott strode, but not to write the next *Ultima*. He could do all the programming he wanted at his office at ORIGIN Systems, so rather than housing a complex of computers, disk drives, and stacks of floppy disks, this closet was actually filled with clothes. Black clothes: black shirts, black pants, black boots, black hats. Richard Garriott the New Englander was in a black mood, and now pictures those years as one of the darkest periods in his life. ORIGIN had relocated from Houston to Londonderry in 1985, when Garriott and Chuck Bueche, the company's sole programmers, volunteered to move there so Robert, whose wife already worked in the area, wouldn't have to keep commuting from New England to Texas. Garriott had reached the halfway point of his decade in the dungeons.

From his Texas attire of Tony Lamas and Levi jeans, he had gone to stalking the Londonderry streets dressed in black

leather pants and jackets, with steel-studded bracelets around his wrists. He'd let one strand of hair grow straight down his back and below his shoulder blades, braiding it into a long ponytail he finally cut off but eventually replaced with another. These outward changes reflected the inner turmoil he was experiencing in what he perceived as a hostile environment. It is strange that a game with such a noble goal, to become the embodiment of good by following a code of honor based on the eight virtues of the Avatar, emerged from Garriott's dark days in the snowbound northland.

New England may have been a dream come true for Bob Newhart at the Stratford Inn in nearby Vermont, but Garriott found New Englanders far less outgoing and hospitable than Texans, their social customs uncomfortable, the night life nearly nonexistent, and the weather nastier than a Gila monster with a tequila hangover. After he'd driven it up from Houston, his car had been wrecked in the waist-high snow just daysafter he'd driven up from Houston. (He'd replaced the dark blue Nissan 240 ZX with a black Mitsubishi Starion, the first in a line of ebony automobiles.) Things had gone downhill from there. As a result, he had begun to keep more and more to himself in the gloomy New Hampshire atmosphere, almost like the Evil One imprisoned in the Fortress of Ultimate Doom in *Time Bandits*, and had more time to think about *Ultima IV*.

The Quest for *Ultima IV*

Tossing his gloves on the shelf and hanging up the black leather motorcycle jacket, he returned to the living room, his mind still fixed on his quest for *Ultima IV*. It had taken months to formulate a way of ensuring that the character representing the player would possess traits and skills and, more importantly, beliefs that were aligned with those of each individual who played the game. One person might begin the quest as a Mage, another as a Tinker. Garriott had already written the rou-

tines that would handle this decision, already polished the list of the eight virtues to which the player must adhere in order to prove himself worthy. Still one thing eluded him; for what tangible goal was the player striving? What was the person striving to *become?* Turning the TV set on, he flipped through the channels, happened across a documentary on the Dead Sea Scrolls, and shifted his attention to a Hindu yogi chanting in an incense-filled temple in faraway India. Before the show concluded, Garriott had not only stumbled into the concept he needed to pull the theme of *Ultima IV* together, but had also come up with the makings of the subtitle: *Quest of the Avatar.*

The Turning Point

Garriott looks back on *Ultima IV* as a turning point for him in many ways, both personally and professionally. The learning process represented by the first three games was over, and, like a novelist who'd finally mastered his craft, he looked for something meaningful to do with it, something beyond writing another standard fantasy role-playing games in which you "seek and slay the Evil Wizard" or "find and return the Mystic Orb." For this reason, he devoted a lot more thought to the next game's design than with any previous game, concentrating the lion's share of that time on the conceptual phase. In doing so, Garriott turned to his audience and their interactions with *Ultima* as they described them in the mail. He decided that if people were going to look for hidden meanings in his work when they didn't even exist, he would introduce ideas and symbols with meaning and significance he deemed worthwhile, to give them something they could really think about.

Another reason for this decision was the growing sense of responsibility he felt as he matured: "My belief is that an individual is nothing more than the electrochemical brain that's compiling and regurgitating information presented to it over its

lifetime," he rationalizes. "Therefore, by definition, if somebody spends 100 hours playing my game, I have 100 hours of the input that makes that person what they are. With that comes, in my mind, a sense of responsibility regarding the content of what I'm going to pipeline into that individual for 100 hours. That was really the kernel thought that started what has now really changed *Ultimas* henceforth and probably forever."

Recognizing that the first *Ultimas* literally forced you to steal food in order to survive, Garriott felt uncomfortable with the idea of reinforcing such negative behavior. "I didn't think it would make kids go out and steal, but I did think I could write a game in which everything you can do has more of a purpose to it. I don't *mind* having the player steal to make money, but I knew I could do a game that doesn't require you to do so. I wanted to build a world in which you could get caught if you steal from people, where people won't like you if you hit them."

A Matter of Religion

Garriott had no religious axe to grind (nor Magic Axe, for that matter). "I am not a religious individual, but I do have difficulty with the scare tactics that religions use to teach ethics, saying you must be good, or something bad will happen to you. The Golden Rule—be nice because you want people to be nice to you—makes sense from a logical standpoint. It's pure logic and has nothing to do with whether there is a universal rightness or wrongness.

"My family did go to church when I was very young, but by the time I was in my teens, we really didn't. So I went to Sunday school at an interdenominational church, which was a very interesting upbringing because it was *extremely* interdenominational. I mean, all different sects of Christianity as well as Judaism and who knows what else—I was too young to

know what else might have been there. But it was very interesting the way Sunday school was taught in this church, which I really believe was an amazingly responsible thing to do: they would read a Biblical story that had a moral to it, and they would tell you why this means achieved this end, and then say 'this is a story put in the Bible to teach this lesson.' Christians believe it because it was recorded in this way, and so on, and they would explain it to you, not as, 'this is fact,' but as 'this is a story that exists for this purpose.'

"Although I was a child, I accepted it as fact, literally, but they didn't tell me this was fact—that you must believe, or you are going to hell. As an adult, I could reflect upon it and say, 'I don't have to believe that. I understand why it was told, and why it was recorded. But it is my choice as to whether I want to believe it or not.' My eldest brother is religious; myself and Robert are not. We had a choice though, which is the point. That is why I find it amazingly responsible the way they brought us up... My father, for instance, was not religious and my mother was only somewhat religious, but they believed it was important that their children have that upbringing as a knowledge base, and they found a place where they could get it. So, we all got to make those choices as adults. I thought that was very responsible on my parents' part and pretty rare."

A Philosophical Message

Steadfastly refusing to twist threads of religion through his stories, Garriott distills his true intentions with the symbolism and message of *Ultima IV*. "The idea I'm trying to put forth is more philosophical than religious—that in a society where people have to interact with each other, there are certain kinds of rules whose rationale you should be able to understand. It's the difference between morals and ethics: ethics exist for logical reasons, while morals exist because somebody says so. Morals are made-up things that exist for almost no reason,

while ethics have a logical purpose, an action-reaction kind of aspect."

With *Ultima IV*, Garriott resolved to forge a world in which he could demonstrate the logical nature of ethical values such as honesty and compassion and why it makes sense for people to live by such values as natural habits in the game world, "not just because the quest says so, but because the world will react more favorably to you. The antithesis of that as a habit is that the world will react negatively against you. So in order to succeed as an individual in the world of *Ultima IV*, it makes sense for the player to believe in these eight principles, or virtues, such as Honesty, Compassion, and Spirituality." Garriott gave considerable thought in choosing them, but says any number of sets of reasonable guidelines would have made sense.

"That is the whole story of *Ultima IV*. The quest that you have to fulfill—to find the Codex of Ultimate Wisdom—is largely irrelevant," he divulges. "The fact that you have to take item A to location B to solve the game is not what it's about— the game is about the social issues of being a good person in the world as opposed to being an evil person...at the same time, I am as careful to avoid treading on the toes of religion as I am to avoid supporting religion. I'm trying to walk this really fine line, which I realize is a very dangerous line because of the way people can interpret it." In order to avoid misunderstanding, he is alert of any symbols, illustrations, or ideas that might be misinterpreted by those playing the game.

Overcoming His First Obstacle

One of the first problems Garriott encountered was in designing such a game within the framework of a series of quests. But an even bigger obstacle proved to be ensuring that the player's onscreen character, or puppet, as Garriott phrases it, truly represented that individual. His analogy of conventional role-

playing games compares the player to a puppeteer who controls the actions of one or more puppets, his characters in the game. Often the player views one of them as an alter ego, so it doesn't truly represent the person who's playing the game. "It could be even an anti-you," Garriott argues.

Typical role-playing games allow the player to choose a character's profession, race, and other traits, or at least modify them to some extent. If you want to be a Wizard, you just pick that class during the character creation phase at the outset of the game. But Garriott didn't want a player to play the role of the Evil Wizard if the person was really a friendly, sociable individual whose personality didn't match that of the character. "I didn't care if the character was stronger than the player in real life—that wasn't the issue. The issue was personality traits—I wanted the character to appear to be *you*. So, how you generally thought as an individual would really determine what you would really be like in that world." It also determined where the player's character materialized in Britannia when he set out on the adventure, for each city was related to a virtue, as was each shrine, rune, and mantra, and the initial quests were also associated with virtues the player favored the most. Because he conceived a game in which the player's character would reflect his personal ethics and virtues as faithfully as possible, it was vital that the onscreen character really *be* the player, not a puppet or alter ego, so Garriott went to great lengths to develop the character creation format introduced in *IV* and adapted for subsequent *Ultimas*.

In *Ultima IV*, your character's profession, attributes, and other idiosyncrasies were not determined by the player's choice or by the rolling of random numbers inside the program, but according to your responses to the situations depicted in a series of Tarot-like cards displayed by a gypsy fortune teller. In effect, this served as a way of quizzing the player about his philosophical beliefs so the program could

build a personality profile based on those beliefs, then assign the player a character according to that profile. Garriott sought a way to do so in the game's introduction, spending months studying to figure out "what motivates people to do things, that's what I was looking for, the traits that make one successful or not successful in the world, so to speak. So I wrote down passion, envy, all the different kinds of seven deadly sins, and everything I could think of. I made this huge list of things that motivated people, the right kind of things to do, the wrong kind of things." While wrangling with the puzzle of narrowing down the list, he happened to catch the television documentary about the Dead Sea Scrolls.

"They were talking about the life of Christ, and digressed briefly into a period of time when he apparently traveled to India and other Hindu areas and studied with them for awhile," Garriott remembers, flashing back to that fateful day. "Christ was an individual who clearly existed, for enough text throughout the world describes him as a living individual. But the Hindus have a very interesting bent on Christ. They have yogis and things, and a belief that there are 16 ways you could purify yourself. In one of these 16 ways you would get some sort of power, spiritual power, based on that. Some yogis can kind of like stop their heart and other bodily functions and things of this nature, and I believe these people can literally do those physical things. I'm not saying *why* they can do them, but apparently the biggest, most powerful yogis can even do things like teleport themselves to other places on the planet, which I have never seen personally and am somewhat skeptical of, but you never know. But it's a very interesting thing that the Hindus believe Christ was a very powerful yogi who, when he studied with them, attained the most powerful level, the avatar...the culmination of yogis is to become an avatar, and the definition of an avatar is someone who has purified themselves in all 16 of these ways.

"There are five ways of purifying your physical body, for example, and five ways of purifying your spirit, and so on, and the last one, the sixteenth way, was to become one with God himself. Interestingly enough, to this day Hindus say there have been two avatars in existence throughout history: one was a woman who predates written history, and the second one was Christ. So I say, 'this is very interesting, you never hear the Hindus talking about this,' but even today they believe that Christ was a very significant person in history and was an avatar. But while the Christians say Christ was the Son of God, the Hindus say, no, you misinterpret it: he never said he was the Son of God; Christ said he was *one* with God. That is an interesting perspective of this similar situation in history, and I was fascinated from a historical standpoint."

It was from this documentary on the Dead Sea scrolls that Garriott picked up the concept of the avatar for *Ultima IV.* Upon consulting the encyclopedia and dictionary, he realized that its definition—the incarnation of a particular belief or philosophy—was exactly what he had sought: "I wanted you to be the incarnation of your own belief and philosophy, so the *Quest of the Avatar* was to prove yourself in these eight virtues."

Chapter 6
The Secrets of the Codex Unveiled

"Lions and tigers and bears, oh my!" the trio sang to bolster its nerve as the yellow brick road swerved through a dark and foreboding forest on its way to the Emerald City. The Cowardly Lion trembled at the thought of being attacked by unseen monsters, and a sudden noise from the bushes sent him bumbling into the Tin Man, who rattled and shook and crashed into a heap on the road. The Scarecrow didn't have the slightest idea what to do next, since he didn't even have a brain with which to mull things over. Only Dorothy, skipping along in her Red Slippers, kept them on the path in their individual quests, which they hoped would be fulfilled by the same Wizard she sought to help her return to Kansas—*The Wizard of Oz.*

Garriott, watching *The Wizard of Oz* as he does almost every three months each year, bolted upright on the sofa and stared into the set. The goals of the Scarecrow, the Cowardly Lion, and the Tin Man, it dawned on him, matched three of the virtues he'd picked as parts of the Way of the Avatar. And not just any three,

but the trio from which all the other virtues could be formed. From a long list of virtues under consideration, he had seen Truth, Love, and Courage as the central energies from which the others drew their power. "I wasn't really sure why they stood out, but when I was watching *The Wizard of Oz*, I thought of the Scarecrow looking for a brain, which was truth; the Tin Man looking for a heart, love; and the Cowardly Lion looking for courage. (This really *was* an independent thought for me, I mean, a man has *some* background influences.)

"Since Truth, Love, and Courage really don't overlap, they formed a nice, principal set of three, and almost everything else on this list that I could look up was built on those three concepts. And because somebody else—L. Frank Baum, the author of the *Oz* books—had also apparently thought about this and had come up with Truth, Love, and Courage, it seemed right. Maybe he didn't think about it as Truth, Love, and Courage, but Baum had clearly arrived at that same set of things you need to be successful." The fact that somebody else's work that Garriott highly respected had expressed the same thought he had reached independently made him cling to that concept. Working logically, as always, he took these three and put them together in every possible combination, distilling from his list eight virtues that formed the Way of the Avatar.

Finding the Right Symbols

Pointing at the pattern on a shiny brass coin included in the *Ultima V* package, Garriott explains how the concept was iconized into what looks like a six-pointed Jewish star with three circles in the center. This is the symbol that materializes onscreen when the player finally unearths the Codex of Ultimate Wisdom at the end of the game; it's also found on the inside back cover of one of the game's manuals, *The History of Britannia*. The three principles of Truth, Love, and Courage can be represented by any of the three circles. "The eight virtues are built out of those

three individually, in pairs, with all three of them, in one case, by none of them," he reveals. Look at the Truth circle, and you'll see that only one line in the diagram touches it: that line symbolizes Honesty. The one line that impinges only Love stands for Compassion, and the single line touching the circle of Courage represents Valor. Again Garriott's focus on providing a logical basis for a work of fantasy becomes clear when closely examined.

"Truth tempered by Love is Justice," he says, explaining the significance of that line, which borders both those circles. Still another line touches only the circles of Love and Courage, the components of Sacrifice. Courage and Truth are contacted by a line that stands for Honor. The little circle in the center of the Codex, touching all three big circles, exemplifies Spirituality. "And by spirituality I mean concern about your own inner self," he further delineates, "what you are to yourself. Are you doing good or are you doing evil in the world? Since it touches none of the virtues, I call this large outer ring Pride. One element of *Ultima IV* is the fact that there is a City for each of the virtues. Pride isn't a virtue, but the City for Pride has been destroyed, and so you have to make a personal judgment that Pride is wrong, and use Humility as a virtue instead."

By minting his own symbol, Garriott had avoided its possible misinterpretation, except perhaps by anyone fixated on the Codex's resemblance to a Jewish star. Then when he saw the need for a visual icon for those following the Way of the Avatar to wear, a symbol of peace and benevolence that would protect the individual struggling to be true to the eight virtues, he felt it vital to find an image that wasn't associated with Christianity and, even more important to Garriott, one that didn't stir up visions of satanic rituals and ceremonies. From another of his favorite films, *Logan's Run*, he selected the symbol of the ankh, which the player finds in the opening scene and sees etched into the walls of Lord British's castle and in other dwellings around Britannia.

In the film it pointed people toward Sanctuary, a place where citizens fleeing an oppressive government could hide. Garriott liked it because it looked positive and, while resembling a cross, had a little loop on the top that distinguished it from the Christian symbol. Another reason he selected the ankh was its meaning in ancient Egypt: life and rebirth. The ankh fit the story's theme so well, Garriott put a small metal ankh in each copy of the game to supplement the traditional cloth map.

Character Creation

Garriott elected to effect his insightful manner of character creation in a way that allowed him to learn something about the player before the program would decide whether he should enter Britannia in the robes of a Wizard or the armor of a Paladin. He devised a series of situations in which the player had to choose one of two courses of action that symbolized two of the virtues, and in doing so, would unwittingly reveal which of the two he considered more important. "With eight virtues to compare, there are 63 possible combinations," Garriott calculates. "So we had to come up with 63 individually unique stories about comparing any two virtues."

His favorite example of these stories—Honesty versus Compassion—illustrates the process. The gypsy shows the player a card depicting a medieval scene in which he has been entrusted by his Lord to take a large uncounted purse of gold to the bank for deposit. Along the way the player meets a destitute beggar who is virtually starving to death. The player only has two choices: to fulfill his Lord's assignment by taking the gold to the bank for deposit, or to hand the beggar one gold coin from the bag—knowing it really won't be missed, since he knows it wasn't counted in the first place, and realizing it will sustain the beggar for days and perhaps even save his life. There is no right or wrong answer.

After the player's choice determines which of the two virtues he more highly valued, Honesty or Compassion in this case, the gypsy held out a card with a situation that confronted him with a fresh pair of choices. Say he had chosen Honesty; the next pair of cards might ask him to choose between Honesty and Valor, a process that was repeated until it determined the one virtue most important in his eyes. If that virtue happened to be Valor, he'd be a Fighter; Humility, a Shepherd. Garriott also tested this method by writing descriptions of each virtue and asking people to make similar choices, and he says they almost always selected the same one they did when comparing the virtues with the cards. In addition, he learned that anyone put through this series of questions repeatedly almost invariably came up with the same answers, findings that confirmed the card reading method's efficacy.

"My basic thought was that people who favored Honesty, and therefore, also Truth as the more general concept, were people who were basically the seekers of knowledge," he reasoned when working out how the player's most cherished virtue, once revealed by the cards, would govern which character class he would play in the game. "The seekers of knowledge had three basic character classes, and the more you chose Honesty and Truth, the more I would raise your character's Intelligence, and also the more I would drive you toward being a Mage. The more you chose Valor, which would also therefore be in the general category of Courage, the more I would drive up your character's Strength and push him in the direction of being a Fighter. If you chose the Love kind of attributes, the Compassion kind of attributes, I concluded that was more like the artists, artisans, and therefore the Bards. So I would drive up your Dexterity and push you more toward a Bard. I was using Bards as opposed to Thieves because, of course, Thieves have the negative connotation, but that is really what I mean by Bards.

The cards themselves were elegantly executed likenesses of the French-style Tarot cards that genuine gypsies as well as New Age oracles shuffle and spread when divining the future. "The Tarot cards," Garriott enlightens, "were simply a visual mechanism to show you that you're really comparing two icons, so to speak, two thought icons. They give you a clue that 'oh, I'm really kind of thinking about the same thing I was before,' to hin that there's really more going on here than just answering a bunch of questions. The black beads and the white beads, though most people never figure them out, really did match you answers." (A few players were observant and shrewd enough to realize these beads were the key to defeating Garriott's carefully designed character selection scheme; by choosing the proper series of cards, they found it easy to begin the game as a Mage, Shepherd, or any other class they desired.)

Card Reading

The card reading occurred in a natural setting that eased the player into the story. For the first time, Garriott opened an *Ultima* with an elaborate introductory sequence consisting of a series of still pictures like those seen in a typical graphic adventure game, with five lines of text below to further the plot. It commenced during a walk through the countryside, where a "shimmering blueness" arose from the ground in the center of a circle of small stones arranged like a mini-Stonehenge. The Moon Gate that rises before the player teleports him to Britannia, where he scoops up an ankh and a copy of *The History of Britannia* and the *Book of Magic* before walking down into the valley, happening upon a Renaissance Fair, and ambling into the fortune teller's wagon for the card reading. (After the defeat of Exodus, the final member of Sosaria's nemesis, the Triad of Evil, the people had renamed the land Britannia in honor of the day.) So charmingly did this introductory sequence set up the story and put the player in a

suitable proper frame of mind for the quest ahead, that Garriott would employ far more sophisticated introductory sequences in future games in the series.

Gaining the Codex

Though *Ultima IV*'s true goal was to become an Avatar by following the Way of the Avatar as stated in the principles of the eight virtues, Garriott capped it with a major quest in which completion would signal the end of the game and provide the player with a sense of accomplishment. This quest was the recovery of the Codex of Ultimate Wisdom, a mission comparable to that of the Knights of the Round Table when they sought the Holy Grail. Throughout conversations with the inhabitants of Britannia, Garriott scattered clues to the whereabouts of the Codex and the artifacts and other things necessary to obtain it. A keyword *mini-parser* facilitated conducting conversations with nonplayer characters, the most effective such interface seen in a role-playing game until then. In order to converse with someone, the player typed in a name, job, or a word learned from another character. The person's reply might drop another keyword or name that could be mentioned to someone in another town, who would send the adventurer off to find someone in yet another town. These questions and answers sometimes turned into an interactive running dialogue that proved quite engaging. When asked about "Job," a Fighter in the Inn at Moonglow says his is to "speak of the virtues of Honesty." If the player then types in "Honesty," the Fighter replies that "A few honest men are better than numbers," and poses a question to the player. "Dost thou strive to be honest?" Answer yes, and he'll part with the mantra for that virtue, which is required before you can meditate at the shrine of Honesty. But say no, and he'll just say "Shame!" and never even mention that he knows the mantra.

Eyes for Symbolism

Anyone with an eye out for symbolism in Britannia wouldn't have had to look far. For each of the eight virtues, a specific town, shrine, mantra, and rune existed, and the number 8 recurred throughout the story. The number of party members was upped to 8 so it would coincide with the eight virtues, but this time the player had to seek out potential explorers and ask them to join the quest. (Even when he found the right characters, they wouldn't necessarily join right away: the Tinker in Minoc refuses unless the player has enough Sacrifice points.) There were also eight dungeons, each eight levels deep, associated with the virtues, and there's an infinity symbol that looks like an 8 lying on its side. These could be interpreted in an abundance of bizarre ways: do they secretly refer to the 8-fold path of Buddhism? Does the omnipresence of the number suggest a radical connection with the Chicago 8? Or was Garriott inspired by a rerun of "Eight is Enough"?

Symbolism aside, visually *Ultima IV* overwhelmed its predecessors in scope and detail. Britannia loomed 16 (that's *two* 8s, if you're counting) times larger than *Ultima III*'s Sosaria, and the number of tiles was doubled, this time to 256. Garriott's attention to detail was stunning, with new kinds of terrain, ships that now had to be sailed according to the direction the wind was blowing, and oceans that might be deep in some spots, shallow in others, and impassable elsewhere. More nuances arrived in the form of a sextant that provided the user with the longitude and latitude of his location, further enhancing the reality of a world you could fly or sail around. (Much has been made of certain locations' latitude and longitude in Britannia, such as the fact that the Stygian Abyss is found at OJ, OJ—which, at least one computer game reviewer still insists, refers to a clandestine orange juice cult founded by Garriott while vacationing at Disney World in Florida during the summer of 1983.) The Air-car in *I*, which turned into an airplane in *II*, mutated into a hot-air balloon that,

like ships at sea, depended on the wind for power and steering in *IV*. The legend of the Silver Serpent was magnified with the introduction of a castle that was home to the Knights Order of the Silver Serpent. Sound effects, music, and animation reached new heights for the genre as well as the *Ultima* series, and the most authentic magic system ever seen in an adventure game was introduced.

Spellcasting

Garriott illuminates how the logical nature of spellcasting in the later *Ultimas* stemmed from *The Chronicles of Narnia*. "When I read the thing about the closet being built out the wood from this other world, which is how it connected these two worlds, and the old wizard who had these rings that could also transport you back and forth, I was fascinated with the way Lewis approached magic and tried to build some logic into it." By couching magic in sets of incantations that seemed to possess some meaning and were supported through a sort of pseudo-science to achieve that end, Lewis had provided rational reasons for his readers to accept a world where magic worked. Impressed with this technique, Garriott laid the foundation for an equally solid logical structure for the *Ultima* magic system as it would stand in *IV* and every chapter to follow.

"I'm trying to build a magic system that is almost true...as close to being believable as I can make it," he says, at the same time pointing out that though his work involves fantasy and magic, he is no believer in sorcery of any sort. To make his magic more believable, Latin-style names like *Luminae* for the "make light" spell bolstered the magic system's reality. And to cast spells, the player had to collect and mix assorted reagents such as ginseng and mandrake root in the proper proportions, precisely the way genuine alchemists of ancient times concocted their magical potions and spells. The reagents, some genuine herbs and others totally fictitious, also fit logically into the scheme of Garriott's

magic system. Spider silk was selected as an appropriate ingredient for spells that involved binding things together, for example, since that's what spiders do when spinning their webs. With a logical basis for its spells, the magic system as a whole seemed self-supporting to the player, who, if willing to just take one little step in suspending disbelief, would naturally place his other foot behind that first one and soon be far along the path of accepting the fantasy that magic works in the worlds of *Ultima*.

Setting Records

As with the first three games, Garriott wrote almost all the code for *Ultima IV,* though Chuck Bueche and Steve Meuse provided some programming assistance. Meuse handled the "following algorithms" that directed the movements of nonplayer characters, and Bueche put together the introduction and end game sequences (he also capered in the halls of Lord British's castle as Chuckles the clown). ORIGIN had struck an exclusive distribution deal with Electronic Arts' Affiliated Labels, and became the first and only *Ultima* distributed by the California company.

By now *Ultima* had attracted a following so large and loyal that the *Quest of the Avatar* would probably have sold as well if it had been distributed by a gaggle of orangutans wearing sunglasses and hawking it off the back of skateboards on the L. A. freeway under a blue moon. After two years of waiting, legions of adventurers leaped to their feet and raced to the stores when the Apple version was released in 1985. By the time it had been converted for all major home computers, *Quest of the Avatar* sold more than 200,000 copies. It also set a record when it topped *Billboard*'s list of computer game and held onto the title for six months. Readers of *Computer Gaming World* voted it into the magazine's Hall of Fame—which along with *Ultima III* gave Garriott one-third of the role-playing games on the list— and *QuestBusters* called it Best Quest of the Year for 1985.

Chapter 7
Help! Mr. Wizard!
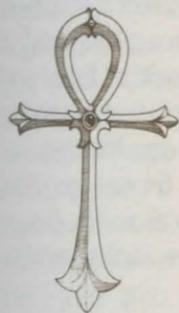
In the first *Ultimas,* Garriott had drawn every tile and dropped it on the map, written every scrap of dialogue, and done everything else except some of the boot-up screens, documentation, and cover art for the boxes. But with *Ultima V,* he began scouting for talented programmers to bolster the ORIGIN development team, placing newspaper ads in cities with universities noted for computer science courses.

First to come aboard was Dallas Snell, who had produced *The Quest* and *Ring Quest,* graphic adventure games published by Penguin Software in 1984 and 1986. Snell had heard of Garriott's search for staff members through the game programmers' grapevine. Born in Alaska and reared on a Louisiana ranch, Snell was a self-taught Apple programmer who arrived in New Hampshire in October, 1985, a month after the release of *Ultima IV.* Initially this self-described "farm boy who got tired of slopping the hogs" programmed the artificial intelligence for *Ogre,* one of a number of ORIGIN titles. (By now it had become clear to the Garriotts that for the company to prosper, they would have to diversify the product line.) For *Ultima V,* he programmed the introductory and end-game se-

quences. When ORIGIN obtained rights to publish *Ultima I* and *II* and Garriott decided to have the team rewrite it in machine language for the *Ultima Trilogy* in 1986, Dallas programmed the module in which the player comes face to face with Mondain.

Another Penguin veteran, Dr. Cat, joined the team in 1986. Cat had been programming since his father got him an 8K Commodore PET computer during his grade school years. Cat, whose real name is David Shapiro, left high school at 16 to attend Indiana University, where he focused on computer science. Like Garriott, he also dropped out of college to pursue his craft in the real world, first writing Muse Software's arcade-oriented *Caverns of Freitag* (the only computer game inspired by a stuffed toy dragon). Eventually he went to work at Penguin, writing *Cat Graphics* and producing *Expedition Amazon* and *Sword of Kadash* among other novel adventures, before tackling his first ORIGIN project, the Commodore 64 conversion of Greg Malone's *Moebius*. Soon he, too, was at work on the *Ultima I* rewrite, along with Steve Meuse, Dave Holly, and the rest of the ORIGIN team.

John Miles drove from Antlers, Oklahoma, to join Garriott's growing party of game designers in late 1986. He'd started out on Apple and attributes his success to an "inadequate teacher" whose lack of knowledge on the subject forced Miles to do his own research. After sending ORIGIN a demo of a role-playing game he'd written, he got the job. Miles, like the others, had played one or more of the *Ultima* series and looked forward to a chance to work with Lord British on the next one. He wound up as lead programmer on the project, generating code for the time line that facilitated having the characters walk around independently, in the long run writing more than half the code for the game.

A Flair for Ingenuity

Miles had demonstrated his flair for ingenuity as well as proving his proficiency as a programmer with the introductory sequence for the assembly language version of *Ultima I*, which he wrote on the road, dragging his trusty Apple computer from the car and setting it up in each motel room where he stopped along the way. He tampered with the introduction in a most amusing way, and worked on the game's introductory sequence. His boot-up sequence for the Apple rewrite of *Ultima I* consisted of a series of animated scenes that looped endlessly until the player started the game. Miles sketched a medieval landscape where a castle rose from the forest beside a pastoral lake; a bird would fly past and perch in a tree, and the word *Ultima* would descend while a hand gripping a sword rose slowly from the lake. Aware that computer stores would display this sequence constantly to attract customers, Miles added a routine that would count the number of times it had been repeated, and then every fourth time send a knight in shining armor riding past on the distant horizon. It was just a little joke that made him laugh when he pictured someone watching it in a store, noticing the knight and telling a friend to watch for it—and then wondering what happened when it failed to appear.

To really drive observers up the wall, Miles added another undocumented feature: every fourth time the knight was scheduled to ride by, he was replaced by a red Lamborghini. The sports car would zoom up to the castle and race through the door that opened as it approached, then the castle door would slam shut. For players clever enough to figure out the correct keys to press in conjunction with the control key, he tossed in a command to make the knight appear at any time, and another that would launch the Lamborghini into action. (To activate Miles' hidden features on an Apple version of the game, wait until the white ORIGIN logo, the smaller one set

into the picture, comes up on the screen. If you're using an
Apple IIe, simultaneously press control-shift–2; on an Apple +,
control-shift–P; these start the Lamborghini's engines. A con-
trol-K brings up the knight. Miles says it's tricky, but you
should be able to get both the knight and the sports car on-
screen simultaneously and watch them race.)

Stir-Crazy

Like Garriott, others arriving from more hospitable climes also
made wrecking their cars a top priority upon arrival in New
England. So when Garriott grew "stir-crazy," as Miles described
him in those days, and headed for Texas in late 1986, Miles and
Snell were southbound in early 1987. The plan was for game
development on *Ultima* to be handled at an office in Austin, a
site whose location and very existence remained unknown to
the public and most of the gaming industry; the publishing,
marketing, and other departments would remain in New
Hampshire. Two programmers, Herman Miller from Oklahoma
and Cheryl Chen from the Boston area, stayed in the frozen
wastelands where they concentrated on conversions and other
projects. Like Miles and Cat, Miller had enjoyed playing the
earlier *Ultimas*. He'd also been an enthusiastic *Dungeons &
Dragons* player and an aficionado of computer adventures like
Crowther and Wood's *Colossal Cave* and the mainframe
version of *Zork.*

Getting Feedback

Peering out the window of his office, Lord British checked his
watch and watched for the mailman. When the red, white, and
blue truck finally rolled out the driveway minutes later, he
marched off to the mail room and collected all the letters from
people who'd been playing *Ultima IV*. Back in his office,
Garriott read each one closely for negative feedback from his
audience, for he was concerned that people might think he'd

gone off the deep end with such a radical concept in *IV*. "Even some people in my own company were thinking that," he says, grinning about it now, "and I was a little worried the public reception would be, 'the guy has flaked out, he's trying to push moral philosophies on me, or teach me things in his game when I just wanted to *play* it.' So I hoped people understood what I am trying to do, that it's not religious, that I'm neither for nor against religion—I do hope people understand that I am not trying to get on a high horse and preach."

Fortunately for Garriott, the public and critics responded enthusiastically enough to make *Ultima IV* his best-selling game so far. A few letter-writers complained about not being able to play their favorite role as Thieves, and others called for a return to the likes of *Ultima II*, which they favored simply because you didn't get punished for killing anything that got in your way. "There's nothing wrong with that," Garriott reasons, "that's just not what I was writing anymore." He had crossed another threshold, deciding that if people just wanted to fight monsters for the rest of their lives, they could do it in someone else's games. "I'm writing stories," he vowed as he moved into the second half of his decade in the dungeons, "stories with some socially significant meaning, or at least some emotional interest."

Most reviewers commented on how *Quest of the Avatar* transcended the nature of typical computer role-playing games by challenging the player to become something, an Avatar, rather than to slay an Evil Wizard, and Garriott was very pleased with the reception. With the public's favorable response and his decision to expand the storytelling side of *Ultima* in mind, Garriott sat back and surveyed his last work. "Now that I had done this neat game showing the good way, the next logical thing was to see what happened when it went wrong." Since *Ultima IV* was, in Garriott's words the "ultimate Goody Two-shoes on the face of the planet" kind of story, he

envisioned *Ultima V* as a game that would take the concept to its logical conclusion by asking what happens when the government gets in on the act and starts punishing people who fail to live in accordance with the eight virtues. "I kind of think of it as my statement against TV evangelists," he says, " or any other group which would push their personal, philosophical beliefs on anybody else."

The Role of Lord British

Garriott's first problem with *Ultima V* manifested in the image of Lord British, his counterpart in the game. He didn't want Lord British perceived as a villain, so the plot called for Britannia's king to vanish in the Underworld. The player's long-range goal was to find and rescue Lord British. "But rescuing Lord British in *Ultima V* is not really the focus of the game," Garriott points out. "It's just the final physical activity you have to do, like recovering the Codex in *Ultima IV*. It is *how* you do it that's important."

With Lord British out of the picture, Garriott installed a new character, Blackthorn, to the throne. The principal antagonist in *V*, Blackthorn was originally a good guy who was merely misguided. First he replaced the Way of the Avatar, which sets out the eight virtues to be followed, with the Ethics of Britannia. Blackthorn planned to "help" Britannians become Avatars by making them observe harsh new laws based on the eight virtues, For Honesty, he decreed that, "Thou shalt not lie, or thou shalt lose thy tongue," and for Compassion, that "Thou shalt help those in need, or thou shalt suffer the same need" (in which case all the player's possessions were seized and distributed among the poor). Britannia soon resembled Spain during the Inquisition, with gallows and guillotines in the courtyards, and the player's potential party members hiding in the forests like Robin Hood and his Merry Men, when the Avatar is called

back to save the day. In fact, the officials who enforce these laws were even called The Inquisition.

When starting this kind of government, Garriott says the reception the player gets from some Britannians upon arriving to rescue them from Blackthorn is that "you have many people who can prosper within that system, so a lot of the shopkeepers and merchants are telling you, 'Wait, what is the problem here, guys, marshal law has essentially been imposed, there is no crime in the streets, my business has prospered, people act good to each other, and so what are you complaining about?' So where *Ultima IV* was fairly black-and-white—I mean good guys are good guys and bad guys are bad guys—*Ultima V* unfolds in a gray area. Lots of characters try convincing you that Blackthorn is doing things just right; some say he's a evil force; and others realize he's wrong but are taking advantage of the situation for personal profit and are willing to fight anyone who opposes Blackthorn. You now have to more or less operate like a Robin Hood-style outlaw, working against the system but from within the system, which you must bring down philosophically as well by convincing key people in the government that they are wrong about Blackthorn." Only then can you can finally track down and rescue Lord British.

Tough Decisions

Another of Garriott's key goals in *Ultima V* was to introduce personal emotional conflicts for the player, which he did by forcing the adventurer to make difficult personal decisions. In one case, players have to get a clue from characters who will only part with it if players turn in one of their friends to the government. "There is no other solution," Garriott discloses. "I agree it was a dirty trick, having to turn in one of the good guys to get the information. Now, admittedly, the game never really goes and lynches the guy, but you must presume that is the ramification of what you have done. That is a tough per-

sonal thing that I put in there, not because I knew the answer myself, but because I knew it would be a tough decision."

Garriott found another effective way to jar players emotionally and get them personally involved, by giving them meaningful reasons to dislike Blackthorn. The Evil Wizard in conventional role-playing games is rarely even seen until the final confrontation, whereas Blackthorn personally antagonizes the player again and again. In one dramatically moving scene, unless players reveal secrets, Blackthorn seizes Iolo the Bard from their parties and threatens to slice him in half with a huge, razor-sharp pendulum like the one in an Edgar Allan Poe tale of horror. Tell him what he wants to know, and there will be disastrous effects on the land and its people, but refuse to do so and Iolo, a character who's been with hard-core *Ultima* gamers on quests since *Ultima I*, not only gets sliced in half, but is also erased from your disk—which means he can't even be resurrected! It's not a game whose antagonist is a villain who lurks mainly in the documentation, which tells how he's an evil guy though players never really see him do anything until the final confrontation. Blackthorn was a more interactive antagonist, giving the player numerous personal reasons not to like him.

A Touchy Issue

ORIGIN actually lost an employee over another of Garriott's efforts to involve players emotionally as well as intellectually and imaginatively with his fantasy worlds. He says it even got his family involved emotionally, triggering a significant debate among them. It all had to do with killing that roomful of children (or not killing them, depending on whether you killed them or not). While designing some of the 256 individual dungeon rooms in *Ultima V*, "populating dungeons, filling them with stuff, and putting things here and there," Garriott racked his brain for some novel and unexpected situations to

build into the dungeons. Since the software didn't support putting characters capable of conversation in a dungeon room, Garriott was restricted to filling rooms with furniture or monsters. If he placed a villager in a dungeon room, for instance, the man would function as a monster and could not be addressed in conversation.

"I was looking through the tile set and I came across this very interesting shape—children" he says. As he constructed a dungeon room, deep down in a maze, he filled it with little jail cells, then filled the cells with children. The room was set up so that when players push on the wall in one place, the jail cells open and the young prisoners are liberated. "So you see the children and you want to save them," Garriott explains, "but when you find a way to open the jail cells, they come out and start attacking you.

"Well, I thought, that is an interesting little problem, isn't it? Because I knew darn well that the game doesn't care whether you kill them or whether you walk away. It didn't matter, but I knew it would bring up a psychological image in your mind, an image that was in my mind—and any conflict you bring up in anybody's mind is beneficial. It means a person has to *think* about it.

"Personally, I didn't care how they resolved it, so I put it in. I was really pleased with myself. However, one of the playtesters in the New Hampshire office found that room. He was a religious fundamentalist and was immediately outraged—he thought it was encouraging child abuse. He didn't call me about it; he wrote a long letter to Robert, two or three pages about how he was utterly unwilling to be involved with a company who would even consider, in his mind, promoting child abuse. Well, Robert was outraged. He called me up and said, 'Richard, Richard, how could you consider putting something like that in your game?' I told him he had it all wrong, I mean, he'd interpreted it as it said in the letter, that the only

way you can win the game is to slaughter the children in that room. I am telling him, first of all, most people aren't going to *see* that room, because you don't see every dungeon room, and secondly, when you walk in the room, you don't have to let them out. And third, you don't have to kill them.

"If you were that bent out of shape about killing them— which *is* the easiest way to get out of the room—you could charm them and make them walk out of the room yourself. You could put them to sleep and walk out of the room. You could do any number of things, but the point is that you don't have to kill them. Admittedly, nine out of ten people who find the kids screaming out around their feet are going to kill them—but you don't have to kill children to win the game, so there's a big difference. Robert still thought I had to remove them from the game, and he got my parents involved. They called and said, 'Richard, how can you consider doing this?,' and they were saying, 'just remove this, it is just a little room, why are you bothering to fight for this so much?'

"And I said, because you guys are missing the point. You are now trying to tell me what I can do artistically—about something that is, in my opinion, not the issue you think it is. If it was something explicitly sexist or explicitly racist or promoting child abuse, I could stand being censored. But if it is something that provoked an emotional response from one individual, I say I have proven the success of the room. The fact that you guys are fighting me over this makes me even more sure I should not remove that room from the game."
Ultima veterans who have entered that dungeon and savagely slaughtered those little tykes can attest to his victory in the brouhaha, as can those who visited that cell and figured out how to escape without slaying the children.

Chapter 8
Back to Britannia
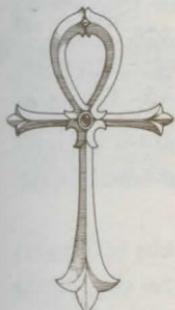
A full moon hovered over the skyline, casting a pale gold glow on the crinkled pages of the leather-bound tome as Garriott slowly thumbed through it at his desk. Magic was in the making, for his task was nothing less than to coin the language of magic that would be spoken by the Mages and Wizards of Britannia in *Ultima V*. Planning to quickly ferret out a suitable synonym for poison and call it a night, he'd hauled the massive 11-language dictionary from the shelf hours ago. But so engrossed did he become with the subtle nuances and shades of meaning, so captivated by the alluring assortment of nouns and adjectives and verbs, that he sat leaning over its faded pages long after choosing the Latin *noxius,* from *noxa,* to harm, and abbreviating it to *nox.*

The Art of Spellcasting

Garriott's desire to create a fantasy world supported by the kind of logical framework employed by C. S. Lewis in *The Chronicles of Narnia* had led him to further embellish the *Ultima* magic system for its latest incarnation in *Ultima V*. Most

of the original 26 spells found their way into this one, but spellcasting would now require the player to master the "language of magic" devised by Garriott and his cohorts at ORIGIN. By pressing keys corresponding to Latin-style syllables, the player strings several syllables together to concoct the desired spell. The actual syllables were either truncated or slightly modified Latin words, or root words from the 11-language dictionary and a row of other reference books consulted by Garriott. Each syllable symbolized a magic-related idea. *An* meant negate, and *nox* meant poison, so the combination *an nox* produced the negate poison spell. *In* signified create, so *in an* would be the create negation spell that nullified any spells cast for the next few minutes. This language of magic donated even more realism to Garriott's already authentic system of blending logically-related reagents to prepare spells. (Of course, anyone who recalls their high school Latin classes will enjoy at least a slight edge when learning to cast these spells.)

Real-Life Characters

Another new element in *Ultima V*—and the one that distinguished it from *IV* more than any other addition—was the way every character in the story followed a daily schedule that reflected his or her position in Britannia's society. This heightened the storytelling aspects of the quest as much as it did the realism of the experience. In previous fantasy worlds, the citizens just didn't get around much. The knight who offered a valuable clue never left the pub where you first met him, for example, and the cook spent all his time in the kitchen. They were static characters, obviously existing solely to move you further along in the quest.

To enliven the latest incarnation of his fantasy land, Garriott ushered in dynamic characters like Jeremy, who rises every day at 9 a.m. from his bed in a little room at the inn in the town of

Yew. He strolls down the street to visit his brother, who has been locked up for heresy by Blackthorn, and then returns to the inn and cooks for the customers. Each character has a daily routine and drops by for meals at different times. After work, Jeremy checks in on his brother once more before falling asleep back in his room, only to awake and repeat this routine the next morning. In addition to augmenting the reality of Britannia, these daily routines presented Garriott with fresh opportunities for puzzles. No longer could the player count on finding a character lounging at the same pub where he first made his acquaintance, for the guy might be across town having dinner; this meant people now had to observe the patterns of individuals in order to learn their secrets.
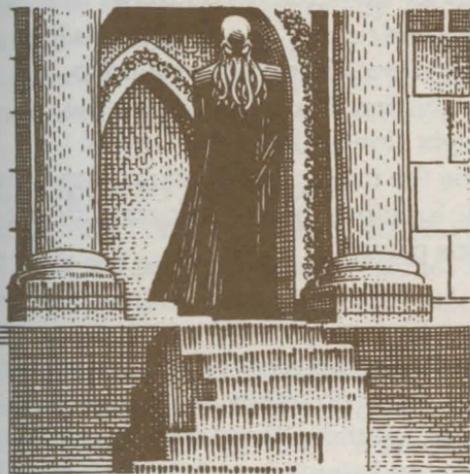
MIND FLAYER

This notion emerged naturally from Garriott's approach to game design. Rather than come up with a story, then develop a game system for it, he says, "I first create a world, and then give the world a purpose, and then let people go and explore another life in that world. That first began to show in *V*, but has really been true, unconsciously, since the first game I wrote, and consciously in all of the recent ones, particularly *IV* and *V*."

A Precise Time Element

Other graphic and audio nuances branched from his introduc-

tion of a precise time element, which was integral to the implementation of daily routines of the people in the game. Garriott went to extreme lengths in this regard, incorporating a grandfather clock that tick-tocks when the player draws near, and chimes to indicate the correct time of day or night. As the seasons change, farmland transforms from bare ground to crop-covered fields. And for the first time in an *Ultima*, the daylight dims at dusk and night slowly cloaks the land of Britannia, illuminated only by the rotating beam of an occasional lighthouse. At specific locations, one of a dozen different original musical compositions plays.

Under Construction

Lord British's castle and other buildings were remodeled into multistory affairs, and players discovered they could now walk around on the rooftops for the first time. Water splashes convincingly as it flows in streams and spurts from fountains, accompanied by suitable sound effects. The Silver Serpent insinuates itself into the story as one of Britannia's Crown Jewels, a "silver amulet, in the shape of the mighty earth serpent, said to have come from another world," according to the *Book of Lore* that served as the game's documentation. Coastlines don't look as jagged as previous, thanks to an expanded tile set of 512 tiles (twice as many as in *Ultima IV*), which includes tiles that are half water, half land. Combat-hardened *Ultima* fans around the world rejoiced upon realizing they could finally throw Axes, Daggers, and loose arrows, and hurl spells *diagonally* in addition to vertically and horizontally. (The monsters already enjoyed this advantage in previous *Ultimas.*)

The New Underworld

Before Lord British can be rescued, the player must eradicate a nefarious trio of Shadowlords—an archetypal image recurring

in a number of computer role-playing games, such as Freefall's *Sword of Twilight*— and explore the sprawling Underworld that lies beneath Britannia. This new land was formed by volcanic eruptions triggered by the removal of the Codex from its subterranean hiding place, the Stygian Abyss, at the end of *Ultima IV.* In the subsequent *Ultimas,* the Codex would play a pivotal role in the saga, as would the Underworld itself.

Unexpected Surprises

In the midst of such an involved and consuming project as an *Ultima*, the programmers sometimes dropped an undocumented feature into a game. Like Miles and his *Ultima I* introduction with its intermittently appearing knight and sports car, they played similar tricks for their own amusement as much as for the entertainment of players who happened to discover these unusual and generally unknown aspects of many *Ultimas*. Occasionally they would insert even more practical routines referred to as "undocumented cheats," like the control-S that reveals all the player's values for Honor, Justice, and the other virtues in *Ultima IV.* This spared the designers and playtesters invaluable time during the game's development, since they didn't have to return to the castle and ask Hawkwind about their status in each virtue, one at a time (whether it was left in the game intentionally or through a last-minute oversight is one of the mysteries of *Ultima* that remains unsolved).

While *V* was under development in Texas, Ken Arnold played a trick on Garriott with an inventive undocumented feature. Arnold, who did the musical score for the preceding *Ultimas,* was working on the music and therefore had access to Garriott's computer. He sneaked in a piece of code that would turn every one of the tile graphics on the screen upside-down. The "flip flop" effect was set to go off after a particular tune played a certain number of times without anyone touching the

keyboard. Arnold knew Garriott's work habits well enough to foresee that after he installed this subroutine on Garriott's hard disk, the "flip flop" effect would be activated when Garriott had moved away from the machine for a few minutes and was no longer at the terminal, so he wouldn't be able to see it happen and would assume something bizarre had gone wrong with the program. The flip flop effect sent Garriott scrambling when he got back to his office after a trip down the hall for a soda. "When I returned and saw it, I said, 'What kind of bug could possibly do this?', since it only reversed the tiles, not the rest of the screen. After Ken 'confessed,' we all liked the subroutine so much, we left it in the game." (To see this startling effect yourself, just yell *flip flop*. You can turn if off by repeating the phrase while outdoors, but not if you're indoors.)

The staff schemed up a surprise for Toshi, a programmer who worked on the Apple version of *Ultima V* but left before it was published. One of the first screens in the program displays the names of all the programmers, artists, and others who contributed to the game. When the person who replaced Toshi went into the program to rearrange the screen to make room for his own name, he brought to light a piece of code with a purpose no one could fathom. All they could ascertain was that the subroutine was waiting for the player to press shift-control–1; when someone tried this, a flashing arrow burst upon the screen, pointing at Toshi's name.

Everyone realized his intent: upon the game's release, Toshi planned to gather his friends about the computer, boot up *Ultima V*, hit the control key combination, and show off by making the arrow highlight his name. Because the title screen had been rearranged, the arrow no longer pointed to Toshi's name. And since this meant the screen had to be revised, they decided to play a trick on Toshi by revising his subroutine to do something new. Imagine his surprise when, instead of seeing his name singled out by an animated arrow, Toshi and

his friends watched "Toshi" slowly erase itself from the screen!

Another undocumented feature in *Ultima V* consisted of a mini-editor that could read or write to any memory location within the game, or call up any subroutine from outside the *Ultima* program. With knowledge of the memory addresses and the numbers and letters to punch in, you could instantly elevate all eight virtues to 99, for example. Garriott says that, with patience, you could literally rewrite the entire game with this feature. It was left in the program in case a player's game crashed or there were other drastic problems; instead of asking players to return the disks so someone at ORIGIN could fix the problem, the customer service department could just call them back and tell them to type XX XXX and 555-1212, for example. Though it was never used for this purpose, the same kind of precaution may also turn up in *Ultima VI*. The five-letter password required to activate this feature remains top-secret, but it follows the pattern described above.

A Race to the Finish

When time arrived to playtest the game, Garriott and Miles wanted to know if the game was solvable *before* they passed it on to ORIGIN's two full-time playtesters, who might easily have been wiped out by monsters long before they could make such a discovery. To save time in the testing process, they decided to play it through first. Garriott's eyes light up at the memory, "We both knew the game so well, that we decided to race." Creating fresh characters, they squared off in the same room, in view of each other's monitor. It was a fateful day, this virtual shootout at the Avatar Corral, for Garriott had always been the first person to complete each of the previous *Ultimas*.

Their strategies varied dramatically. Garriott played by the book, solving every miniquest and seeking out battles to build up his attributes before tackling the final dungeons. "John's strategy," Garriott concedes, "was quite slick: to ditch everyone

in his party and play with a solitary character." Miles never tried to build up his character, for he knew where to find the Magic Axe—a powerful weapon that was the one thing in the game whose location Garriott didn't recall. "John beelined it for the Axe," Garriott remembers, "and did so kind of quietly, because we could see each other's monitors, and he must have realized I didn't remember where it was (in a hollow tree stump by the castle)." Then both adventurers tore out for the Invisibility Rings, invaluable artifacts that enabled them to avoid combat. Because he had only one character in his party, Miles got more mileage from his Rings than Garriott's party of five, which used them up five times faster.

Despite diverse approaches to the quest, Miles and Garriott ran fairly even until the final dungeon, where Garriott's larger party proved less maneuverable and whose Rings kept wearing out in mid-combat. This slowed him down considerably, and Miles screamed through the final maze and emerged considerably sooner than Garriott, who proclaimed Miles "the first person in history to finish an *Ultima* before Richard Garriott." They'd played continuously for 14 hours, morning to midnight, and Garriott had learned the true meaning of the phrase "beaten at your own game."

The stock market may have taken more than a beating when it crashed about the same time *Ultima V: Warriors of Destiny* was released and distributed by Brøderbund in 1988, but ORIGIN Systems was having an excellent year. On all the computer systems for which both games were already released, it had topped the sales figures of *Ultima IV* and is now projected to surpass it in overall sales when the rest of the conversions are done. Critics called *Ultima V* one of the year's top games, and *QuestBusters* named it Best Fantasy Role-Playing Game of the Year. Garriott had covered a lot of ground on his way to the conclusion of his decade in the dungeons and was finally beginning to see the light at the end of the maze.

Chapter 9
From Texas to Tokyo to Tomorrow
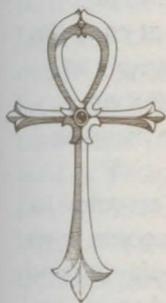
The fall of 1989 found Garriott turning his four-wheel drive Jeep off the asphalt, past a stand of pin oaks and cedar and across a stretch of grass to the picnic tables at the far end of Bull Creek Park. Melting like gems in the mid-day sun, chunks of ice spilled from the oversized plastic tub filled with bright red and white cans of Budweiser and Cokes that had been dropped off on the first run earlier that morning. A yellow Frisbee whirred through the air behind them as he and Dallas Snell unloaded a pair of barbecue grills, stacks of frankfurters, hamburger meat, pickles, buns, and a Texas-sized assortment of condiments that included a giant jar of Pace's hottest salsa. Though the time drew near for the *Ultima VI* team to intensify its efforts, Garriott was throwing a company picnic on a sunny Saturday in the park north of town, where he and Snell grilled

burgers and hot dogs for the more than 40 ORIGIN staffers and their families, some of them meeting for the first time. Several, such as programmers Herman Miller and Cheryl Chen, had just moved down from the New Hampshire office, and many were Austinites recently hired when the entire publishing wing migrated to the rambling hill country of central Texas.

Extending the Boundaries

As the number of games under development in the Austin office had mushroomed—by now ORIGIN's catalog listed 15 titles, primarily role-playing games like *Windwalker* and *Knights of Legend*— the programmers in Austin first took over an empty office down the hall, then the one across the hall, and so on until ORIGIN occupied over 12,000 feet of space in the building on Wild Basin Road. *Ultima VI* was already underway by this time, and Garriott found that this and other projects were falling behind because of logistical problems like having to fly back and forth between New Hampshire and Austin to coordinate the work of the programmers at each site. Finally ORIGIN consolidated all the principal operations in Texas, where Richard maintained his office, while Robert directed the financial and international aspects of the business from New Hampshire.

From its roots in a little Texas town, *Ultima* had traveled to the four points of the compass, and by 1989 had become even more popular overseas than in its homeland. Role-playing and adventure games had been kicking around England since the 1970s, but it remained a relatively minor market because most people still played their games on a Commodore 64 with a cassette tape drive rather than a disk drive. Though ORIGIN games were distributed there from the start, it was only with the release of *Ultima IV* that the company began taking the market seriously, and European sales are now about one-fourth of U.S. sales.

Going International

The role-playing game genre itself was a relatively recent phenomenon when *Ultima* first landed on Japanese shores, where action games predominated. Japanese computer gamers were introduced to *Ultima* in the early 1980s, when Sierra licensed a version of *Ultima II* over there. This one's text was still in English, however, so it wasn't widely distributed or played. ORIGIN's English-text version of *III* was well received by the press and a growing audience of Apple gamers—so well received, that the island's software market was soon saturated with countless *Ultima* clones. Even now *Ultima*'s influence on Japanese game design is visible in a legion of clones like *Dragon Quest IV, Gem Quest,* and *The Forbidden Tower.*

When the publisher of one such clone, *Xanadu,* approached ORIGIN about distributing that game in the U.S., the Garriotts flew to Japan to discuss the idea. They were also looking for someone to convert the text in *Ultima IV* into Japanese as well as convert the program for the new breed of Japanese computers so it would reach a bigger audience in that nation. *Xanadu* turned out to be a top-down view, tile-graphics game closely resembling an *Ultima,* but Garriott didn't consider it close enough to be a copyright infringement. That is until halfway during a presentation of *Xanadu,* when a familiar scene filled the screen, a high-resolution picture showing the interior of a shop. The illustration was a direct copy of one of Denis Loubet's pictures in the *Ultima III* manual, and looked as if the designers had literally digitized Loubet's original art and added color. The president of the company put his hand over the monitor and laughed nervously, but found it pointless to continue the demonstration after stumbling into yet another shop illustrated with ORIGIN artwork. These weren't the only such examples of Loubet's work that had been diverted to *Xanadu,* and the Japanese company wound up settling out of

court with them, paying a large settlement and changing the art in the game.

As in Europe, ORIGIN launched their first major marketing drive with the release of *Ultima IV*, translating the text into Japanese with this and subsequent releases. The *Ultima Trilogy* hit Japan in 1989, so the entire series up through *IV* is now available in Japanese-language versions. A Nintendo version of *III* recently won the "Fantasy Game of the Year Award" in Japan and has been released here. (While ORIGIN intends to focus on games for home computers, Nintendo versions of *IV* and *V* are already underway, and *VI* is only a matter of time.)

Celebrity Status

Garriott himself became as highly visible in Japan as his games, for the Japanese distributors launched an all-out media blitz to promote the Nintendo *Ultima III*. *Ultima* comic books, an *Ultima* album on compact disc, two kinds of wrist watches, a tape dispenser, a pencil holder, a board game, a jacket, and even an *Ultima* beach towel took the island by storm, and animated cartoons soon brought the *Ultima* story to television audiences. To promote the release of the computer version of *Ultima V* and the Nintendo *IV*, a series of prime time TV commercials starred Garriott as Lord British, sitting on the throne of Britannia in one of his SCA costumes. Garriott even recalls seeing his face splashed across billboards on recent trips to Japan. Though he is occasionally recognized on the street or in Austin restaurants, as happened now and then when living in New Hampshire, he was startled when Japanese gamers spotted him in Tokyo and besieged Lord British for autographs. The Japanese propensity for turning entertainment personalities into full-blown cultural icons had turned him into an overnight star in every sushi bar in Tokyo.

Living the Ultimate Life

To look at Garriott flipping burgers on the grill in Bull Creek Park that crisp fall afternoon, you would have never guessed he was such a celebrity from Japan to London, or that with the release of *Ultima VI* he could lay claim to designing the longest-running game series in the history of the industry. That project was still on his mind as he packed up the Jeep a few hours later and roared over to Britannia Manor, the house he'd designed and built, only a few minutes drive from the office. A pair of flags displaying the pirates' skull and crossbones snapped in the breeze as he pulled into the circular drive, parked, and hurried in the front door. Past a pair of shining suits of armor that guarded the foyer, he went upstairs and into the lounge.

Walking past the four-foot high African idol fashioned from wood and festooned with shells, bead work, and other fetish material before being topped with the skull of an adult male gorilla, Garriott stepped out a door and onto the porch of the towering mansion, surveying the horizon as he recalled his original plan for *Ultima VI* and how all the pieces were falling into place. Realizing he had fully mastered the art form and technology that breathed life into each new incarnation of Britannia, Garriott had decided to "go gangbusters to make the world realistic, to take it to the extreme." He had also made up his mind to continue selecting relevant social topics for this as well as future *Ultimas,* aware that he could "decide what I want to say with the game now, so from here on out I'll be choosing concepts that I want to explore psychologically, you could call it."

The theme he had elected to explore in *The False Prophet* was even more subtle than the concepts dealt with in *Warriors of Destiny* and *Quest of the Avatar.* "It is a game about conflict," he imparts, "a game that discusses how two peoples at war with each other are not fighting because they are really

antagonistic toward each other, but because each feels justified in their actions. If you talk to an Iranian and some from Iraq, I'm sure the Iranian will tell you exactly why Iraq is at fault, while the Iraqi would blame everything on Iran. *Ultima VI* is about conflicts like this, why they exist, and about their proper resolution." Like the preceding game, *VI* is a story packed with emotional significance. As the story unfolds, your personal attitude about who is right and who is wrong will change, as does your comprehension of the situation, which isn't what it seems at first.

A Pivotal Plot Device

The true nature of the Codex of Ultimate Wisdom would come to light in his next story, as would more of the hidden history of Britannia and Sosaria. The Codex, which played a central part in *IV* and *V*, turns up as a pivotal plot device in *VI*, which story discloses that the Codex's history can be traced all the way back to *Ultima I* and the Age of Darkness. At the conclusion of *IV*, the player finds and recovers the Codex, and its removal from its subterranean hiding place triggers volcanic eruptions and earthquakes that create the Underworld underlying Britannia in *V*. As *V* opens, the Codex has been placed high atop a mountain for all to view.

The Codex turns up in *VI* as the main bone of contention between human beings in Britannia and a race of creatures called Gargoyles, who, unbeknownst to the Britannians, have been living on the other side of the planet all along. As the player soon discovers, it was actually the Gargoyle's theft of the Codex that precipitated the Age of Darkness way back in *Ultima I*. Entering a red Moon Gate that materializes in this world, the player expects to be teleported to Britannia, as in *IV* and *V*. But this Moon Gate zaps him to the world of the Gargoyles, where he's nearly sacrificed on a cold stone slab before Iolo, Dupre, and Shamino show up. (These and other

party members, as in previous games, are based on real people: David Watson, Greg Dykes, and Garriott are the basis for the three just mentioned; Sir Jeffrey from the City of Valor is Jeff Hillhouse, the wizard Moriah is Garriott's secretary Michelle Caddel, Captain John is John Miles, and the mouse in Lord British's castle is his girlfriend Sherry Hunter.)

The Story Unfolds

Like a play, the story unfolds in three stages. After a desperate battle and escape in "act one," the player learns that Lord British's liberation from his underground prison, which had been supported by magical forces, set off earthquakes that destroyed the Underworld. At the same time, it opened tunnels from
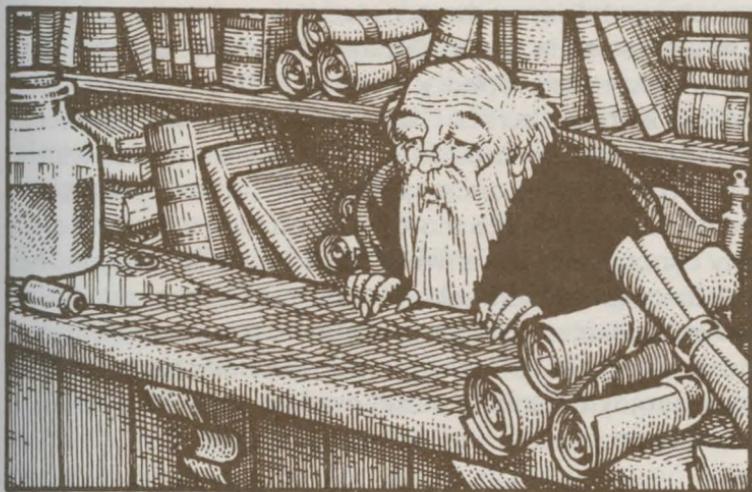
which hordes of horrible blue Gargoyles streamed forth to take took over all eight shrines. The player begins this quest as a righteous hero fighting a war with the evil Gargoyles, who must be found and destroyed in their home on the other side of the world. Gradually the player begins to understand that

the Gargoyles aren't evil at all, but a race with whom Britannia must settle their differences peacefully.

Garriott wove the legend of the Silver Serpent into the fabric of the story, which tells how the Gargoyles capture and milk the snakes to obtain a bizarre and deadly venom. By pricking some of their kamikaze warriors with the venom prior to battle, the Gargoyles turn them into superpowerful berserkers. And a new legend turns up in the pages of the Book of Prophecies, which the Gargoyles believe predicts that a person from another world will steal the Codex and perform other diabolical acts that signal the end of their world—the Avatar of *IV* and *V*, apparently, is the dreaded Evil One foretold in the Book.

Without the Codex, the Gargoyles' world is experiencing catastrophe and disaster, the reason they've seized the shrines. The Gargoyles' main goal in Britannia is to seek and slay the Avatar to ensure the prophecy won't be fulfilled. Only by convincing key members of Gargoyle society of the prophecy's falsehood can the player find a way to share the Codex with them and conclude the quest satisfactorily for both peoples. A clue to the fact that there's more going on than meets the eye is cleverly concealed in the artwork on the cover of the game box and on the cover of the Book of Prophecy: the box, as described in the game, shows a valiant hero towering over the vanquished body of a Gargoyle, while the Book shows the opposite, a Gargoyle standing proud over the body of an evil-looking human.

Startling Similarities

As with his previous stories, *The False Prophet* could be interpreted in more ways than the one Garriott intended or even consciously realized. Viewed psychologically, it could also reflect our unconscious and subconscious fears of the unknown, represented by a race of monsters called Gargoyles, a

species seen in the land of Britannia for the first time in *VI*. Another interpretation lies in the events unfolding in Europe at the time, as glasnost turned into perestroika and 1989 witnessed the Berlin Wall crumble at the very moment Garriott commenced design work on the dungeon walls the Avatar and his band of adventurers must break through in order to reach the land of the Gargoyles. In this light, the message of *Ultima VI*—breaking down the barriers and communicating with a presumed enemy in order to unite under the banner of peace rather than war— gradually becomes apparent as the Britannians, like the East and West Germans and the Russian and American diplomats, learn to communicate with beings formerly thought of as demons. Not only does this lead to peace and understanding between the two peoples, but it also produces the only solution to the catastrophes confronting each civilization. This interpretation was at least partially supported by the eerie discovery that the new map of Britannia, when reduced small enough to fit on a human forehead, almost exactly matches Mikhail Gorbachev's distinguishing birthmark.

The Foundation of *Ultima VI*

The hallmark of *Ultima VI* would be the 2,048 graphic tiles, lavishly drawn by Denis Loubet, whose work illustrates many of the manuals for *Ultima* and other ORIGIN games. An enormous number of tiles were to be devoted to portraying certain terrain types in several slightly different ways, such as the eight different directions of current for rivers and other bodies of water. "In addition to having more tiles," Garriott emphasizes, "I wanted more aspects to them, so each object would be much more refined." He wanted every item in the world—every ring, every knife, every fork, every spoon, every plate, every bottle in Britannia—to exist according to the laws

of real-world physics, which would further augment the sense of reality in *Ultima VI*.

As in the real world, every object would be defined by characteristics such as weight and size, instilling a greater variety of ways in which the player could interact with an item. An *Ultima VI* tile depicting a chair would possess comparable attributes that define how the player can interact with the chair, and each chair's attributes could be varied enough to make them all unique. Garriott opted to make the magic system easier for neophytes by displaying the spells' names in plain English on the program menus. To make it even more enchanting for the player when casting spells, Garriott hit upon the notion of displaying the spells' names in their Latin-style syllables in the game text; for those who really wanted to immerse themselves fully, the pronunciation key had already been published in *The Book of Lore* that served as documentation to *Ultima V*. Additionally, elaborate sound effects and music—the IBM version would support the Roland MT-32 and the AdLib among other sound boards—were to be innovatively sprinkled throughout.

Sweeping Changes

But the most sweeping change would appear in the interface. Influenced by the icon-based interface of Chris Roberts' *Times of Lore*, Garriott streamlined *Ultima*'s 26 commands into ten icons, one of which was new. In previous games, you would "ignite" a torch, "jimmy" a lock, and so on; the new "use" commands could be used for several such actions, reducing the necessary number of commands for the player to master and simplifying design work. It also resolved problems the designers experienced when inventing puzzles for *V*, in which they had trouble figuring out things like whether the player would try to interact with a fountain by looking at it or by searching it. It made more sense and was more natural for

someone to use the fountain and other items, which simplified their work when rigging the fountain with puzzles.

Combat was made far easier. A new auto-combat mode would allow the player to set combat strategies for each character and then press the space bar to watch the game it the orders. Characters could also be controlled manually, so gamers who relished tactical combat wouldn't lose out. Even when not in combat, all party members were to be depicted with individual icons at all times. Though conducted with keywords typed in, as in *IV* and *V*, conversations with the townspeople were no longer restricted in terms of length, freeing the writers to pen elaborate passages of prose when it moved the story along and fit the characters' personalities.

The lay of the land, Garriott decided, would follow a new line, for no longer would towns and castles be represented by icons on the outdoors map, locations with streets and rooms displayed on separate, scrolling indoors maps as in all previous *Ultimas*. Every event in the story would happen on the same 1,024 by 1,024-tile map of the outdoors, except for those in the dungeons and a smaller outdoors map of the Gargoyle's world. Lord British's castle would undergo major renovations, and like other structures, be built right into the map of the landscape so the player could march through the gate and right down the street.

An equally dramatic new look was planned for the caverns and dungeons beneath the land, for 3-D graphics in the dungeons were to be ditched in favor of 2-D graphics. These showed the dungeons from an oblique angle that lends a different feel and is more fitting for dungeons that actually led somewhere this time. Garriott dropped the 3-D dungeons because of a conflict with another new feature— unlike in previous *Ultimas*, where torches, for instance, are referred to only in the game's text, the player would be able to pick up and manipulate any item displayed on the screen. This meant,

85

Garriott explains, "everything that you can pick up and use has to be able to function in 3-D and also in 2-D. That meant I had to either restrict the set of things players can use to ones that I know I can make work in 3-D or 2-D, or make them sometimes work in 2-D but not always work in 3-D or vice versa, or they will do different things in one versus the other. None of those are consistent, and since I'm trying to create a holistic world, I got rid of the 3-D dungeons."

The dungeons would be composed of chunks eight tiles high by eight wide. Some tunnels are so small only one character at a time can squeeze through; others open into huge cavernous regions and rooms. In previous *Ultimas*, a dungeon was a freestanding, individual area, and the program contained literally a separate map called "this dungeon" for each one. But in *VI*, Britannia was to be constructed as a surface world of 1,024 by 1,024 tiles, below which penetrated an expanse of dungeons 256 by 256 tiles in size. These dungeons penetrate down through the world like a honeycomb and come out on the other side of the world. In addition to filling horizontal and vertical space, the dungeons of *Ultima V* occupy volume, which, while the walls and interiors are shown from a 2-D perspective, delivers a new kind of 3-D feel to the adventurer delving into those depths.

"It's not like there are eight dungeons of equal depth anymore, as in *Ultima IV*, not just like how many entrances to the underground exist: some of them are more extensive, some less extensive," Garriott elaborates. "Just having another world on the other side of the dungeons makes the whole thing more realistic, more substantial." (In another example of the close connection between Garriott's real life and his work, one of his dungeons' most ingenious kinds of puzzles, the hidden doors that are opened by pushing on a brick in a wall on the other side of the room, for example, parallels a similar system of hidden passageways and trap doors that honeycomb Garriott's

home. One room, visible from a catwalk on the floor above, has no visible doors or windows; to enter the room you must put a small statue with a magnet in its base on the proper spot on a nearby shelf in the room overhead. This activates the mechanism and opens a secret door and reveals a ladder leading up and down. In the entire house, only one room cannot be entered via one of these secret passages.

Sharing the Workload

For the first time, Garriott decided he wouldn't write a single line of actual code for the game; he would focus on designing the data structures for the world editor, and later on writing the story, populating the dungeons with monsters and treasures, filling the towns with people and artifacts, among a variety of other roles he would play. With a dedicated team of writers, programmers, and artists committed to the project, he knew *Ultima VI* should have already been finished. But he had thrown out a year's work on the Apple after deciding to write it on the most powerful machine available, an MS-DOS clone, which would make *VI* the first in the series to be programmed on anything but an Apple. It also put the ORIGIN team on the scoreboard as having produced the first major role-playing series to take full advantage of the IBM's VGA graphics mode and its 256 colors and exquisite detail. Probably the hardest part of the transition was getting Garriott to give up the Apple, and he promptly slapped an Apple sticker on his MS-DOS computer.

Looking to the Future

Garriott says *VI* certainly won't be the last *Ultima;* he hopes it will go on forever. The technology for *Ultima VII* is already under development in Austin. John Miles initiated the project in eight months of work on an in-house program dubbed "Terramorph Draw." Whereas all tiles are 16 by 16 pixels in *VI*,

tiles produced with Terramorph Draw can be any size the programmers desire, and regardless of an object's size, it will still scroll around very much like an *Ultima* but without the obvious boundaries. And you can be sure that as state-of-the-art as Terramorph Draw may prove itself, it will be obsolete by the time *Ultima VIII* is underway. "The next *Ultima* will *always* be the next technology," Garriott vows, "as long as I can maintain that method."

But he's uncertain about where the next story will take place: "I really still don't know whether I would rather continue to evolve literally, physically, this outline of a world and the places in it, or if I would rather go to a new world. I have reasons to stay in this one. For instance, this world has things that are familiar, like Moon Gates and shrines. If I launch off to another planet, so to speak, I will probably leave those particular concepts behind, which may be desirable and may not be. If I go to a new world, though, I don't know what I would call it. Britannia is awfully appropriate for a world governed by Lord British. If we go to another world, what is Lord British's significance in this world? And those are all questions that I have not yet resolved myself and probably won't until after this game comes out." He adds that the new technology favors building a new landscape, so it seems likely that adventurers can look forward to a different setting in *VII*—but "I don't want to lock myself out of any options at this point, since I never really know what I'm going to do with an *Ultima* until I'm already well into it."

What's to Come

Because ORIGIN spent a quarter a million dollars developing the *Ultima VI* technology, software that enables the designers to closely emulate real-world physics, ORIGIN is likely to develop another game with it. It's versatile enough for a wide

range of scenarios, from science fiction to more fantasies. *Mythos* is one such world Garriott says may be brought forth with this system, an *Ultima* spinoff quest based on historical and mythological stories of Caribbean pirates and legends from Greece and other ancient lands. He also envisions a number of other *Ultima*-related games, such as a multiplayer *Ultima* product, and a self-described science fiction "Space Rogue Meets Ultima" kind of game currently nicknamed "Bounty Hunter." To satisfy any dungeon devotees upset by the lack of 3-D dungeons in *Ultima VI*, he intends to create a separate product that he thinks of as "*Ultima 3-D.*" Garriott is pursuing his fantasies beyond the realm of computer games. A paper and pencil role-playing game based on *Ultima* and a series of fantasy novels set in Britannia will soon bring the saga full circle.

Chapter 9

Garriott's journey from a high school programming class in the Lone Star state had propelled him unerringly along the Way of the Avatar to the estate of Britannia Manor. As Lord British emerged from his decade in the dungeons and celebrated ten years of *Ultima* in 1990, this mystical maverick of computer gaming surveyed the horizon from atop the Manor and cast his vision toward the future of adventure and the adventures of the future.

Part II

**Backstage at the Castle:
The Design and
Development of *Ultima VI***

Chapter 10
Visions of a New World

At a conference table ringed by Silicon Valley computer game programmers in 1988, a pudgy 22-year-old designer hammered the scarred tabletop with his fist to gain the group's attention. He wanted to announce his intention to write a fantasy role-playing game that would be perfect for a clever routine he'd devised. This routine would make a particular kind of calculation far faster and more accurate than even the most sophisticated spreadsheet from the labs of Lotus. Less vociferously but quite as self-confidently, the balding and bespectacled game designer beside him stood up and revealed his plans to write a role-playing game he predicted would be a major success because of a radical animation routine he'd contrived for the program. Why, an observer sitting in the back of the room pondered, don't they just write spreadsheets and art software—and leave game design to people more concerned with fun and entertainment than on showcasing their latest feats as programmers?

Such innovations would be welcome in any computer game. But their inclusion is no guarantee the game would be fun, and "game" remains the operative word in the phrase "computer

game." It is their obsession with the minutia and programming elegance afflictin some contemporary designers that sends them sprawling into the conceptual abyss from which they must painfully ascend, before their fantasy worlds can possibly ring true for the adventurers who visit them? It's not enough to be a masterful programmer who creates a fantasy world so realistic that the player who ventures upon its shores can briefly accept that magic really works there, that Orcs and Dragons crawl and slither across that fantastic landscape, that only he can save its people from the Archfiends and Evil Wizards bent on their destruction.

No, the genesis of fantasy, whether in the form of verse or prose, of images captured on film, or of bits and bytes salted away on a floppy disk, demands a quality that cannot be taught in any course on writing, directing or programming—it demands vision. And it is his vision more than any other facet of his work that distinguishes Richard Garriott's fantasy lands from those fashioned by other world makers. It is a vision as clear as Garriott's penetrating green eyes while he peers into the nebulous night skies from the dome of the observatory atop his home outside Austin. He trains his telescope on the distant planet Venus while reflecting on the two-year process of designing and writing each episode in the epic known as *Ultima*.

Though others squinting through that hollow tube of glass and metal may perceive nothing more than a luminous orb—Venus—Garriott beholds a wondrous globe that might hold the key to unraveling one of the central puzzles in the next *Ultima*. Or perhaps he glimpses a gateway to another dimension in time and space, maybe a planet populated by intelligent beings who are simultaneously staring back at him through light-gathering instruments perched atop their own homes. If he merely stopped with those insights, Garriott would be called at least an imaginative individual. But his ability to incorporate his daydreams and nightmares into each *Ultima* makes him a virtual Renaissance

man of role-playing. He is one of the world's foremost programmers and among the most imaginative authors of fantasy in any media. His visions, as all those who have explored them while roaming the lands of Sosaria, Ambrosia, and Britannia are so well aware, unfurl before the visitors' eyes in the most enchanting and satisfying array of vistas ever to scroll across a computer screen.

More than a Profession

Chief among the reasons for *Ultima*'s artistic and commercial success is that it means far more than a game to Garriott; its design and publication comprises much more than a mere profession. *Ultima* for Garriott is a way of life, and its multifaceted worlds are as much a part of his day-to-day activities, emotions, and daydreams as are the events of his real life, which he spins into colorful yarns and weaves skillfully into the fabric of those mythical lands of Sosaria, Britannia, and others still in the offing. Sidestepping the pitfall of taking himself too seriously, he has cast the art of interactive fiction in a fresh light by reversing the usual process in which computer games featuring plots, notably adventure and role-playing games, are written. In the first place, he doesn't take the conventional view that he is writing a computer game that tells a story; this perspective naturally leads the designer to construct a game system suitable for telling that particular tale, or to modify an existing system for that purpose. In his own words, Garriott unveils the unique vision that distinguishes *Ultima* from other works of fantasy gaming: "I am creating a world, and then a world with a purpose, and then I let people go and explore another life in that world." The story for each *Ultima*, in fact, is the last thing Garriott writes, the capstone for the two years of work that goes into every game in the series. This approach to game design is now summed up in the motto of his company, ORIGIN, Inc.: "Others write software, we create worlds."

Of course, it can be argued that anyone who fabricates a fantasy game whose plot unroles like a bolt of shiny red satin has indeed designed a world. The Echo Room in the Great Underground Empire of Infocom's *Zork* saga, moonlight sparkling in the dewdrops of a Deruvian sunrise in the secluded mushroom groves of *The Magic Candle,* the terror-ridden streets of Skara Brae in *The Bard's Tale* series—these scenes remind us that finely crafted fantasy lands have emerged from other artisans plying the role-playing trade. (Skara Brae, however, drawing its name as it does from an ancient seaside town in the Orkney Islands on the northeast coast of Great Britain, is more authentically situated on an ocean in *Ultima*'s Britannia than is the landlocked Skara Brae of the Interplay series.) But unlike other world makers, Garriott does not "recycle" major portions of the most recent *Ultima* program when it comes time to write the saga's next chapter. (This shortcut, which spares countless hours of programming, in the end shortchanges the player, who finds himself merely repeating many of the same activities and events in a world most visibly differing from the previous one only in its "window dressing.") Instead, Garriott hurls every bit of code from his latest program into the sea and commences his next work of art by sailing into uncharted waters at the helm of a new vessel designed and destined specifically for the voyage.

This course is not part of a carefully conceived "master plan," for Garriott never deliberately planned to rewrite each *Ultima* from scratch; his unconsciously doing so was simply one of two trends he says first came to his attention in 1983. One was the realization that the first two games' success indicated that *Ultima* was going to go on for awhile, which spurred him to think more about linking their individual story lines, "thinking of forward and aft in the games' historical context," as he describes his thought processes at the time. Equally significant was his observation that each *Ultima* had been a total rewrite from the previous one. Attributing much of his commercial success to a prin-

ciple he'd followed unconsciously, he figures, "If I had written *II* and *III* to look just like *Ultima I,* I wouldn't be here today."

During those days, Ultima's only significant competition was the *Wizardry* series, published by the Sirotek brothers of New York. Written by Robert Woodhead and Andrew Greenberg, this classic role-playing game's first entry, *Proving Ground of the Mad Overlord,* sold appreciably more copies than the first *Ultima.* But each of the *Wizardry* sequels sold to smaller and smaller audiences—while each sequel in the *Ultima* saga sold in the neighborhood of twice as many as the preceding one. Garriott interpreted this phenomenon as implying that the people who were buying the *Wizardry* sequels, which were essentially the same game system with a new story set in a new set of dungeons, were a subset of those who bought the original *Wizardry.* (Each of the first two sequels also required characters created and developed with *Proving Grounds,* which hampered *Wizardry* even more in attracting a wider audience.) "Those who got the third one were simply a subset of the people who bought the second one," Garriott reasoned, so each subsequent scenario was doomed to sell to a smaller audience.

On the other hand, each *Ultima* stands out from its predecessors as a holistically unique game. Even though the individual worlds in which the succession of *Ultimas* take place render them stylistically similar to the previous ones, each of those games differs dramatically from the others. Below the veneer of brightly painted forests, quaint towns and castles, swirling oceans, and rippling brooks rests the solid bedrock of new technology. It was this total rewrite, not a mere revamping, that made *Ultima II* so alluring to an even larger audience than *Ultima I* had drawn. *Ultima III* continued to draw new players while keeping its well-established and faithful following satisfied. "It was something I'd done by accident," Garriott admits, "and it was that accidental beginning that kept my base expanding. That's why I constantly strive to redo as much of the game as

possible each time, and really drive it to the limit technologically."

Though Garriott may have lucked out in rewriting the first three *Ultimas* from the tops of their mountains to the bottoms of their dungeons, that unconscious artistic decision may actually signal the presence of true genius, of the artist who moves unerringly and instinctively and boldly in any creative endeavor. And whether it was epiphany or just dumb luck, Garriott—once the significance of his insight dawned on him—deliberately incorporated it into his approach to game design, a philosophy that he continued to carefully groom as he invested more time and thought into how he might apply the knowledge he'd acquired since high school.

Reinventing the Wheel

Garriott not only reinvents the wheel with each new incarnation of *Ultima,* he reinvents the tools with which the wheel itself is reinvented: the programming routines and data structures that will be employed by his team of programmers as they breathe life into his visions and send them spiraling into the skies of Britannia. His formula for determining the nature of the tools they must construct hinges on the most important element of any game: having fun. As obvious an element as it might be, it is often overlooked by game designers more obsessed with programming than with games. Garriott can thank his background in paper and pencil role-playing games and his participation in the Society of Creative Anachronism's restaging of medieval events. These events involve such activities as mock sword fights and Renaissance fairs that contribute to his enlightened and vital perspective.

The best role-playing games—those that are most fun to play, not necessarily those with the flashiest graphics and animation—have always shared a universal trait: they offer the gamer an immense variety of things to do while engaged in solving a

variety of mini-quests and accomplishing a long-range goal. *Universe II,* a science fiction saga from Omnitrend, succeeded because it gave the player a chance to monkey around with heaps of gadgets, tools, equipment, weapons, and other gear that could be manipulated and experimented with as the player commanded a space ship in a remote galaxy—lots of "hardware" whose purpose had to be ascertained before it could be successfully applied in the game's wealth of associated activities. When the player grew weary of mining asteroids to make money, he could buy a new ship, arm it for combat, and spend the next few months of game time raiding enemy ships. Equally important to the number of things to do was that they were *fun*.

And in that department Garriott excels. This is especially evident in the first two *Ultimas,* whose activities outran the gamut, from reconnoitering dungeons to penetrating outer space. Elaborating on this aspect of designing an *Ultima,* he says, "My philosophy is that once you get people compelled enough to sit down and play the game, the whole way you make a game successful is by giving them enough unique ways to do things. First let them deal with pulling levers and things like that for awhile. Then after they've mastered that, you give them something else to do, like getting through doorways by blasting them down with a cannon...next you give them a monster-finding quest, followed by logic problems to figure out. You pace it that way. Assorted activities and the diversity of activities are what makes a game rich in my mind." (Not coincidentally, this is a feature Garriott admires when he comes across it in another game, and he recalls the initial joy of playing FTL's *Dungeon Master* for that very reason: "I was interested in seeing all the neat new things I could do, and after it ran out of different activities, I was finished. I enjoyed it 'til that point in time, and was ecstatic for those few hours.")

Working Backwards

Garriott's emphasis on a multiplicity of activities explains why he essentially works backwards from the way most designers go about developing a role-playing game. "The first thing I do is invent an abundance of activities," he explains, "then I write a story that takes you from one activity to another to another to another. That is the way to design it, not to come up with a story, and then put in enough puzzles for you to solve the story. To my knowledge, very few people are really approaching it from that angle."

But before coming up with a story that ties the rich assortment of activities together in a meaningful bundle, Garriott ensures that the groundwork that will make those activities engaging and fun—and possible in the framework of a computer game—is well underway. He had programming assistance with the last half of *Ultima IV* and throughout *V,* but embarked on the *Ultima VI* project almost like a player in one of his games. Alone, facing an intimidating quest, and armed with only a notebook and a few clues, he gradually recruited skilled party members as the quest proceeded—a programmer here, a writer there—until his band of adventure-writing adventurers was full and fully outfitted. For Garriott wrote not a single line of code for the game, and never even learned the C language in which it's programmed.

This time he gathered a core team of three programmers who would spend more than a year writing the programming code that facilitated the player's every action, during which Origin spent over a quarter of a million dollars on this aspect of the project. "It's been kind of evolutionary," Garriott observes how the development of an *Ultima* shifted from essentially a one-man show to a team effort, "and frees me up to do a lot more of the design work. As the maturing process goes on, it allows me to really add more pep and depth to the story lines."

John Miles, who had been with Origin since 1986 and had written a majority of the code for *Ultima V,* was already on board

in the Austin office. His chief contribution to *Ultima VI* would be the lush cinematic introduction, which rolls across the screen as dramatically as a film. From Oklahoma, where after graduating from college he'd dispatched resumes to a number of software companies, Herman Miller had journeyed to ORIGIN's New Hampshire office in 1987, where he would soon apply his knowledge of C to writing the IBM conversions of *Ultima V* and *Times of Lore*. The next year he was assigned the mission of developing the software routines that governed every element of movement and combat in *Ultima VI*, a mission the side-burned and bespectacled 25-year-old stuck with after joining the others in Austin. These were among the game's most intricate and convoluted machinations whose devise turned into a series of thorny puzzles, as did the daily routine of Cheryl Chen, the 26-year-old Chinese programmer who developed the conversation system by means of which the player talks with hundreds of characters in Britannia.

Cheryl, who voyaged from the People's Republic of China to study programming at Boston University, landed at Origin's New Hampshire office after answering an ad in a Boston paper. Little did Chen suspect she would soon move to Texas and coin her own programming language with which to write the conversation system. Referring to it now as UCS, she compares the "*Ultima VI* conversation system" to a high-level programming language such as C; it's not as powerful, though, since she had no idea what the game itself would be like when she began work on the conversation system. Like every aspect of *Ultima VI*, UCS evolved and grew as Cheryl revised and updated it almost daily to accommodate new ideas as they cropped up. Unlike other Origin programmers, Chen was one of the few with no computer gaming experience until her arrival.

The World Editor

Unlike the production method followed by the designers of

conventional software, an *Ultima* is not written as a free-standing program for which the programmers generate specific code targeted specifically for inclusion in that work. The programming team, rather than writing code intended for *Ultima VI,* had set to work on what Garriott calls a *world editor,* or *map editor.* It is the latest incarnation of this program that Garriott actually uses to build the fantasy lands of *Ultima.* If you've ever toyed around with the now out-of-print *Adventure Construction Set,* you've seen a primitive example of the *Ultima* world editor. To construct a world with ACS, you hop back and forth between several menus that allow you to lay out the planet's surface, cover it with varied types of terrain, populate it with monsters and friendly characters, and weave simple yet engaging puzzles into the patterns that materialize before the eyes of the person who eventually enters your world.

The assorted kinds of terrain, as well as all the objects—the chairs, doors, weapons, and other items—are represented by tile graphics, veritable building blocks from which the world is assembled by laying them one by one on its crust like pieces of decorative tile on a living room floor. In *Ultima VI,* each tile is a little picture precisely 16 pixels high by 16 pixels wide. And for the first time in the history of *Ultima,* Garriott didn't personally draw the tiles, though he did define the characteristics and capabilities of the more than 4,000 tiles he individually positioned in the dungeons, catacombs, and mountains of *The False Prophet.*

With tile graphics and a world editor at his command, a mere human finds himself endowed with the powers of a virtual god who can alter the face of the world at will, rather than explore that world in the guise of a gold-seeking, Orc-slaying adventurer. (In fact, a team of British programmers recently came up with a world construction set that gave this concept an odd twist: in *Populous,* your role is that of a deity who can reshape the face of his world by changing the nature of the tiles with which it's

constructed, a sort of role-reversal role-playing game.) There are just two things that can't be done in the *Ultima* world editor: writing conversations for the characters (for the conversation system stands outside the world editor), and interacting with the world by means of the ten commands.

Building Britannia

The world editor devised for *Ultima VI,* of course, is infinitely more complex than *Adventure Construction Set* in the creative abilities it bestowed upon those who used it to reinvent Britannia, yet it's remarkably simple to operate. To turn a blank patch of land into a forest, for example, Garriott calls up a "bank" of 256 tile graphics devoted to terrain and selects one of several tiles depicting variegated examples of trees, scrub, and brush. Then he returns to the map of Britannia and clicks on the spot he wants to be covered with timberland. The tile is "dropped" onto the screen, where another soon lands beside it, and another, until the woods stretch across the valley and merge with the fringes of a sun-dappled meadow. To send a brook trickling through the woods, Garriott moves back into the bank of tiles and scrolls through it until he finds a screen resembling a stained glass window composed of tiles illustrating sections of streams, rivers, and creeks. Several of these, situated side by side on the map, soon transform the tiny creek into a stream as it flows among the trees and is joined by tributaries that swell it into a majestic river by the time it pours into the sea. (Unlike the rivers in previous *Ultimas,* those in *Ultima VI* flow downhill and in relation to the surrounding topography; they're also animated to flow in eight possible directions of current, like rivers in the real world—another example of Garriott's devotion to detail and realism.)

Denis Loubet, whose artistry embellishes the pages of the *Ultima* manuals as well as the box covers for these and other Origin games, drew the 2,048 tiles used to fashion Britannia's

topographical features: the lava, mountains, oceans, and swamps—each type of terrain painted with a unique flair to lend texture where the individual tiles meet and mingle upon the map. In the earlier *Ultimas,* coastlines had looked rather blocky, with a staircase effect, since there was but one basic tile for illustrating the shore where ocean and land meet. With a greater variety of tiles dedicated to this purpose, the coastlines of Britannia had exhibited more natural and realistic shapes and contours in *V,* an effect not necessarily perceived consciously by the player, but making a subtle and rewarding impression nonetheless. This effect invoked even more detail and precision in *VI.*

More special effects were on tap in a bank reserved for animation tiles, which were used to illustrate moving objects and machines such as the water wheels found alongside riverbanks. A water wheel is represented by several "frames" showing it in various stages as it spins, the animated effect produced by rapidly cycling through a series of slightly different frames. Another effect made possible with animated tiles is the way lightning bolts briefly illuminate the night skies in their swift and jagged journey to the ground. The programmers used color cycling to produce effects like a fireplace whose flames shift from red to yellow and orange: the picture of the fire, with flames glowing yellow, was quickly replaced with an identical tile in which those parts of the flame were dabbed with red by Loubet's digitized paintbrush.

Another bank of tiles held an arsenal of swords, Magic Axes, slings, cannonballs, daggers, and the like, while helms, shields, and other kinds of armor filled the compartments of another bank. Miscellaneous items related to the plot, such as the Book of Prophecy that tips the player to the Gargoyles' real reason for invading Britannia, were stored here, though some would be used but once in the entire game. A whopping 500 tiles were devoted to monsters, shown in four frames (facing a different direction in each) and with varying numbers of animation frames

for each. Some of the creatures destined to appear in *The False Prophet* were too large to be shown with a single icon, so one of the dragons, for example, was composed of five tiles, and the Hydras were made of nine.

Constructed with bricks and stone precisely fitted together as tile graphics, the foundation of a Britannia might be compared to a stage that the audience can climb upon from their seats and participate in the play as it's acted out, improvising lines of
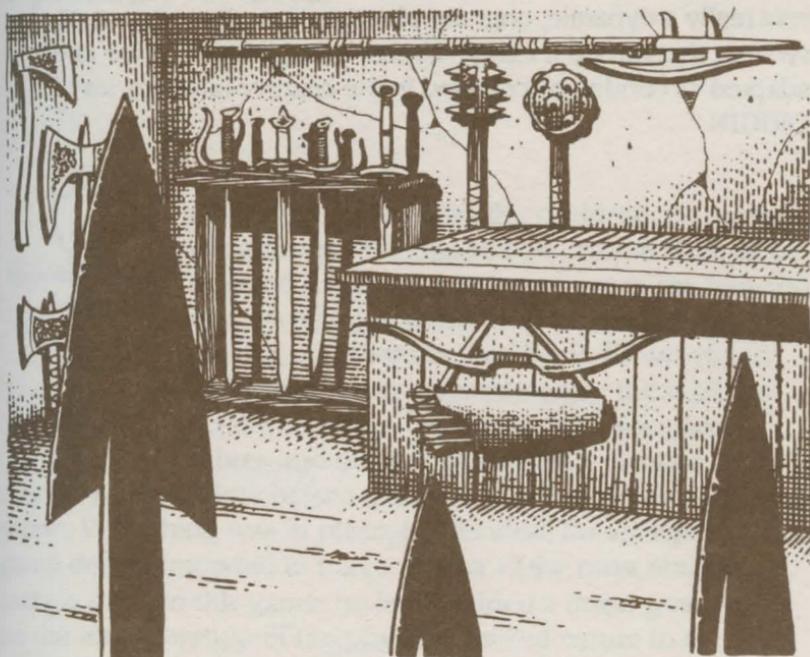
dialogue and leaping into action. True, a stage of wood and steel shares with the software-based world editor a floor, custom scenery, and lighting—elemental features designed to evoke the appropriate atmosphere, or emotional setting, for a particular

story as well as provide a physical setting. Still, the two differ fundamentally.

For how often does a screenwriter or playwright put aside his pen to call up the carpenter and inquire about the props under construction for his latest work of fiction? And while the set designer's work is done when the backdrops and furnishings are built and painted, the programmers responsible for the *Ultima VI* world editor were still on the job long after their initial goals were checked off on the master list. Because the world editor was really a dynamic, ongoing phenomenon, its use generated a synergy that turned it into an almost living entity. It grew and adapted as conditions changed in the creative laboratories of ORIGIN.

Chapter 11
Real-World Physics in a
Fantasy World
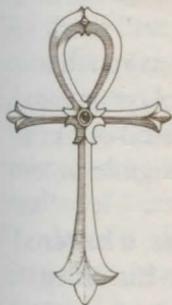
Garriott grappled with the cauldron, 80 pounds of cast iron with chipped and rusted skin, as he dragged it along the beige carpet of the hall and into his office. Careful to avoid knocking over the suit of armor that had been disassembled and precariously stacked against the wall, he set the cauldron beside a brace of fencing sabres and the pair of authentic Saracen scimitars near the window before taking a seat and surveying the scene. Everything was in place, he decided, for an aspect of game design intended to make *Ultima VI* the most realistic fantasy ever. In this game, he had decided a major goal would be the incorporation of the physical laws of nature to see that every chair, door, and other object would behave in the fantasy world exactly as its counterpart would in the real world.

Most game designers are content with putting a picture of a sword on the screen, perhaps giving it weight so the program can keep track of how much a character was carrying and thereby prevent him from picking up another object when he'd reached his limit. But Garriott was determined to introduce

enough other factors that define an object to actually make it possible for every single chair in Britannia to vary sufficiently from the others to exist as a unique item, giving each element of his game world its own hint of personality. This has been

done in every *Ultima,* which makes each version as much a simulation of the real world as it is a fantasy role-playing game. But previous *Ultimas* have never before been carried out in a way that made the land of Britannia so real and tangible in so many facets.

Genuine broadswords and real medieval shields, a battered wooden butter churn, the cast iron cauldron—into his office Garriott insisted on hauling every single object that would find its way into Britannia, to varify its weight to ensure its faithful replication. (How he managed to determine the weight of those enormous green dragons, however, remains one of those inexplicable mysteries of *Ultima* that Garriott refuses to reveal.) The average character is allowed to tote from 60 to 90 pounds, with a maximum of around 150 for those with the highest Strength. Weight in Britannia is stated in stones rather than pounds in the game, however, so a two-and-a-half-pound sword would weigh one stone. By knowing each item's real-world weight, Garriott could more accurately set up problems related to the amount and types of things a player could carry.

The cauldron, for example, shows up as an item the player needs in order to build a fire so he can get a hot air balloon aloft.

Dedicated to Realism

Garriott didn't restrict his dedication for realism to the surface or subterranean aspects of Britannia; its twin moons now orbit the planet in paths so much more authentically than in *V* that solar eclipses occasionally occur. Day slowly slips into night as before, but now the sun actually rises in the east and sets in the west. Light a brazier in a dim room, and the resulting glow changes the lighting in the entire room. Walk up to a mirror, and witness your reflection. Smash it and you'll find bits of glass on the floor, shards you can actually pick up and handle, for these fine points are also represented by custom tiles created solely for those few players bent on breaking mirrors. Such minutia as these may escape the eye of the beholder, but like punctuation marks in a sentence, they transmit invisible messages to the brain that coax it to momentarily accept the reality of Garriott's fantasy.

Garriott's vision of Britannia was so fine-tuned that at one stage he actually deliberated the merits of classifying each piece of ham, butter, and other kind of food as a member of one of the three basic food groups. When a player's character grows weary, one way of restoring his Hit Points is by treating himself to a healthy meal. With this in mind, Garriott toyed with the notion of basing the number of Hit Points thus restored on the player's current nutritional level and the nutritional value of the food he ate, which would have hinged on its food group. Fortunately for the vegetarians in the audience, this idea never made it past the "Hey, that sounds like a neat idea!" stage.

Viewing the World Through a Microscope

If you were to boot up your computer some evening and inexplicably find a copy of the *Ultima* world editor residing on your hard disk, you could call up the tile representing any object in the game and examine it almost as if through a microscope. (You might also call up Origin and ask if there's a reward for the missing world editor.) Something as simple as a butter churn, for example, would be exposed as an item of intricately complex composition. When its picture popped up on one side of the screen, a window would materialize beside it and offer information on the butter churn, much the way the status command lets you examine the Hit Points, gold, spells, and other aspects of your characters. But in the world editor, you could learn the churn's weight, mass, and other attributes shared by every butter churn in Britannia.

Another section of the window would reveal aspects of the churn that might differ from one churn to another. By clicking on the proper spots in these windows, you could alter any of these factors, making the churn the possession of a particular character, visible or invisible, charmed, mutated, the subject of a light spell, contained within another object, beneath or on top of something else, and so on, giving your characters more gold, Hit Points, or whatever they need to get through a sticky part of the quest. Characteristics governing whether an object can be worn or equipped as a weapon (and if so, on which parts of the body), its effectiveness in deflecting dagger thrusts and Magic Missiles, and its value as a weapon are not readily apparent from within the editor. These characteristics are traits shared universally by every object a player might pick up in the course of the adventure.

Garriott estimates the Origin programming team spent as much as 80 percent of its time developing the routines and subroutines that support those real-world physics, giving *Ultima* artifacts such startling depth and dimension. It is this

factual, scientific basis for each tile graphic that makes it more than a mere graphic, more than a simple picture or backdrop, as are its counterparts in a graphic adventure game such as *Leisure Suit Larry,* for example. A canopy lying on a bed, for example, could be pulled off to reveal the bed beneath it. Hauling away the bed, you'd see the carpeted floor, and under that the wooden planks of the room's floor. Each element of the room is clearly defined according to the terms of real-world physics.

And it is around real-world physics that the plot revolves and the puzzles spin so neatly and logically. Imagine a plot situation in which an artifact crucial to the quest's solution was cached away in a room. This room's lock required, not a generic Thief's tool kind of key, but a special one that fits only that specific lock—a key some players might not be able to find (raise your hand if that's ever happened to you!). This situation arises in most role-playing and adventure games, but with so many aspects of real-world physics built into a Britannian door, Garriott was sure that players stuck without the key could improvise a variety of alternative solutions. Based on real-world physics, the world of Britannia so closely resembles the real world, and the door a real door, that the player is that much more inclined to frame the puzzle in those terms. First players ascertain that it's made of wood and therefore might prove vulnerable to a few chops from a handy axe. Had Garriott made it a "generic door" when editing it in the world editor, such an approach would lead to success. By increasing the door's number of Hit Points, however, he could have made it invulnerable to axe attacks.

Failing to make a dent in the door with his axe, sword, or other weapon, the player might next attempt to use a pickaxe or shovel to dig through the floor above the room, a possibility made equally viable by the nature of the game's internal physics. Failing in that effort, he could roll a cannon into the

room and try to blast the door open. In fact, when Garriott created such a room and door for the early part of *Ultima VI*, he did so with the intention of teaching the player to use the special keys devised for the game; blasting that door open with the cannon is the only other known solution in this case. In the end, basing the game on real-world physics means that for every solution Garriott prepared for a puzzle, the player should be able to come up with at least one alternative solution of his own. Though Garriott's responsibility as a designer ends when he's provided just one answer to a problem, he strives to leave these other possibilities there for the player to discover independently. And the more holistic and natural Garriott builds his world, the more he's able to attain that goal.

In doing this, Garriott managed to avoid a fundamental design trap that frustrates players of many adventure games. These adventure games differ from role-playing games in their focus on logical puzzles rather than character development and combat. As an example, consider a puzzle in which you have to climb to the top of a space ship. It dawns on you that you could grab that long piece of pipe on the ground, prop it against the space ship, and scoot right up it. But the program steadfastly refuses to let you grab the pipe, which in reality is nothing but a piece of art—and as such, an artificial restriction imposed arbitrarily on the player. With objects that act and react according to real-world physics, Garriott eliminated such frustrations for the player, building a world in which he can jury-rig a solution from spare parts exactly as he might in the real world. For in the world of *Ultima VI*, that pipe would be defined in terms of weight and size and a range of other factors. If by chance—not Garriott's choice—the pipe proved a feasible solution to the problem, the player's character could climb it to the top of the space ship; then that possibility would have naturally existed as a result of the real-world physics on which the entire world of Britannia is built.

"I start by building a world which you can interact with as naturally as possible," says Garriott. "As long as I have the world acting naturally, if I build a world that is prolific enough, that has as many different kinds of natural ways to act and react as possible, like the real world does, then I can design a scenario for which I know the end goal of the story. But exactly whether I have to use a key to unlock the door, or whether it's an axe I pick up to chop through the door, is largely irrelevant," he says, shedding light on his priorities in game design.

"The details of a story are not what makes it compelling. It is what happens inside your mind when you open the door—do you get to see it interact? Do you get to feel it interact? What emotions are brought up? What visuals are brought up? What sound effects can you use to cause and enhance that? I first build a world full of visuals and sound effects and reactions you can taste and feel, so to speak, and then I write a story that takes you from one kind of interaction to another new kind of interaction to another new kind of interaction—interactions that were generated because they fell out of the code reasonably. Because at the stage of evolving the world we said, 'Hey, it would be easy to make bridges rickety,' not because I said out of the blue at the beginning that I wanted a rickety bridge."

Relying on the rickety bridge as an example, Garriott offers another reason for the unusual way he goes about designing a game. "A lot of games are designed with someone saying, 'Okay, here's the plot. Now you programmers go and program that plot. And part of the plot is for the player to run across a bridge, and if he's wearing too much equipment, the bridge will break when he gets halfway through the bridge and he will fall to his death. That means I have to write code to generate the swinging bridge, and to check to see if you weigh too much when you reach the middle, so it will break. Well, that is a very special-case thing I've just described, so it will probably

be pretty expensive to generate that whole body of code, and it will only be used once in the game. If you didn't weigh too much, you wouldn't even know there was a possibility of the bridge breaking, and if you fall to your death, you will be dead. Either way, you will never know what the other chance would have been, so that's a waste of code because you now have made this single plot item in a very long game, and you are going to have to think of a lot of these single plot items, and write a ton of code to support each of those ideas. I work from the other way around, first figuring out as many neat things you can do within the world as possible, one of which might be rickety bridges that collapse if you weigh too much."

The "Hit List"

While delighted with the enormous collection of new terrain tiles and diversity of novel artifacts and special effects, Garriott also looked over his previous works and decided it was time to remove a few things. High on his "hit list" was the classification of characters as members of races such as Elves, Dwarves, Hobbits, and the like. The early *Ultimas,* as well as practically every other fantasy role-playing game on the face of the earth, offered players a choice of race at the outset, primarily as a means of tinkering with their characteristics and capabilities. A less important but still inherent purpose was to introduce a sense of atmosphere into the fantasy by incorporating the types of beings popularized in Tolkien's Lord of the Rings trilogy, the true source of those gregarious Hobbits and bloodsucking Orcs that have populated so many fantasy lands since.

"But does the game really deal with you differently because you're playing a Hobbit instead of an Elf?" Garriott asked himself. Unless a character's race is the focus of the game—in which case certain Britannians would treat him differently because he happened to be an Elf rather than a Human—Garriott realized that the inclusion of races really didn't make

sense. He opted to rid the land of races forever (unintentionally making *Ultima VI* the first that could truly be dubbed a nonracist role-playing game) because he figured that if the sole reason for enabling a player to make his character a Dwarf was to give him additional Strength, why not just give him those points in the first place, or by compensating for it elsewhere, he reasoned. It still made sense to include races in games like *Knights of Legend,* he figured, in which having a Dwarf in your party can be a real boon in some situations—but not in *Ultima VI,* where race played no role in the story.

He also trimmed the player's list of attributes to Strength, Intelligence, and Dexterity, getting rid of rarely used ones such as Charisma. If Charisma only affects one or two things in the course of the game, he reasoned, it was far more efficient to simply figure some other way to evoke the desired outcome. So he streamlined the player's attributes to a set of three that would improve as the game progressed. Intelligence now served for both magic and what other game systems have called Charisma, for example.

This new perspective on character races and attributes spilled over into the realm of monsterly matters as well. Orcs, those skulking creatures that emerged from Tolkien's fevered mind and eventually infiltrated every major role-playing game from *Dungeons & Dragons* to *Might and Magic,* were not, he admitted, "...a Richard Garriott creature, not a Lord British creature, not a Britannian creature, or even a mythological creature. They're not really creatures at all, so I removed them." His new criteria as he hauled in and scrutinized the resumés of every last monster that had ever stalked the lands of *Ultima* was that he'd keep only those that he'd dreamed up on his own, that were actual animals, or whose roots could be traced to classical mythology.

A Natural Environment

In keeping with his goal to make Britannia as natural an environment as possible, Lord British recalled his definition of the word *natural* when considering the nature of the beasts that would scurry, plod, and scramble through its thickets, highlands, and gloomy caverns. To Garriott, natural meant that things were "not just black and white, but with lots of gray areas in the sense of good guys and bad guys. In the sense of, what is a monster? Are lions and tigers and bears monsters? Not in my book. Lions and tigers and bears are lions and tigers and bears who live for different reasons than you do. They don't live to eat you, they live to eat and prosper, but they could care less whether they are eating you or an Orc, as far as I've ever known."

Perhaps inspired by his fascination with *The Wizard of Oz* as much as the desire to populate Britannia's fauna with more natural creatures, Garriott introduced lions and tigers and bears among Britannia's new monsters for *Ultima VI.* And unless hungry, these animals won't necessarily attack the player, which dovetails perfectly with Garriott's objective of making the world as natural as possible. Each monster possesses attributes that govern its predatory habits. Is it nocturnal, for instance, and does it prey on the party members, nonplayer characters, other monsters, or a combination? Is it evil, good, or chaotic? (Just for the record, the NPCs whom the player must engage in conversation for clues are classified as neutral, so the lions, tigers, and bears can't eat them up before they can pass on their hints.) To the designers of typical role-playing games, a monster simply represents a factor that can reduce the player's supply of Hit Points; the depth of thought Garriott applied to the nature of his beasts again demonstrates not only his attention to detail but his unsurpassed vision in these chimerical realms.

To invite even more realism into the treatment of monsters, Garriott banished the appearance of random monsters for the player to face in combat. In previous *Ultimas* and virtually every other role-playing game, the program randomly picks the kind of monster that shows up in such confrontations. This detracts a great deal from the player's suspension of disbelief so vital to any form of fiction. (So does the discovery that the just-vanquished Wild Dog carried a bag of gold coins and a broadsword, another anomaly typical of RPGs but which won't be seen in *Ultima VI*.) Garriott saw to it that each monster that would confront the player in such a battle was rationally suited to the flora, fauna, and topography of the vicinity in which it reared its ugly head full of venom-dripping fangs.

A New Level of Realism

In *Ultima V,* Garriott had ushered in a new level of realism with the time lines that guided each of Britannia's shop-keepers, cooks, and other citizens through their daily routines. A cook would awake at home, walk to the Inn, and prepare meals for the customers before returning home and turning in for the night, pausing throughout the day to carry out activities typical of life in the small town of Yew. In *Ultima VI,* Garriott's near-obsession with detail spurred him to wring even more realism from these folks' lives. He coined an economic system in which a player could participate by performing a range of related activities for which he'd receive a handful of the coin of the realm. Without emphasizing it so heavily that the game turned into one of bargaining and trading, he provided the player with a means of making money that didn't require slaying monsters or pilfering treasure chests—Garriott let him make money the old-fashioned way, by working for it.

First he ensured that every sort of raw material required by Britannian society had been made available during the world editor's construction. These elements and related occupations

were, for authenticity's sake, necessarily linked in an economic chain with links stretching to every corner of the kingdom. The adventurer who bought some grain from a farmer could transport it to a grain mill beside a river, where a water wheel provided the means of grinding it into flour. Then he could travel to the nearest town and drop in on a baker, who'd gladly buy the flour so he could bake it into bread. Bread could be purchased and consumed as food, or held in reserve. The baker, requiring milk to whip up his next batch of goodies, might ask the adventurer to fill an empty bucket with milk from a cow. After doing so, the milk could be used in conjunction with a butter churn to make butter. One entertaining side effect of this economic system was that instead of merely observing the daily routines of the citizenry, the player could now participate in them, interacting with the people in a whole new way and bolstering Garriott's philosophy of showering the player with an abundance of engaging activities. Among the first things his programmers did when tailoring the underlying technology for *Ultima VI* was to make sure all these things worked.

Cheryl Chen's expertise held sway in the dominion of words, responsible as she was for the *Ultima VI* conversation system. One innovation in the conversation system permits a player to carry on conversations with other members of his own party. Another lets him give and take items to and from the person with whom he is speaking, within the conversation itself. In a previous Origin science fiction role-playing game, *Space Rogue,* it had been very difficult to give an item to a nonplayer character, or take something from one, because this action wasn't supported very well by the game's underlying technology. In the end, programmers were forced to special-code this feature for the game.

Chen programmed the conversation system in a special language crafted specifically for that purpose. This paved the way

for bringing out the personalities of the approximately 230 people in the game, especially the members of the player's party. A nonplayer character can now scan the room for the presence of other NPCs and objects, detect their attributes, and engage individual members of the party in conversation. So rather than existing as static personalities, the NPCs turned into dynamic characters who change their dialogue and actions according to the changes in their surroundings. This is much more perceptible in the behavior of party members, who evolve through the story like characters in a movie. One aspect of *Ultima* that holds true for each sequel is that the NPCs always have much more to say than their predecessors, and in *Ultima VI* they can really talk your ear off. The maximum size of a character's conversation was only 1/2K in *Ultima V*, but in *VI* the average is 3K and the most loquacious individuals boast 10–15K of words.

A Fresh Slant

As Britannia's new face slowly began to crystallize in the world editor, one idea incited another, which spawned a fresh slant on a different element of the game, then another, initiating a slow but sure evolution few of the Ultima team members foresaw. This had happened with *Ultima V,* so it came as no surprise to Garriott, who recalls a classic example from that game's construction. The expanded tile set gave him enough tiles to draw lots of detailed objects to scatter around the rooms, and with so many more rooms to fill in this sequel than in *IV,* Garriott began choosing furniture. After deciding on the commonplace table and bed for Lord British's chambers, he was inspired to put a musical instrument in the room—a harpsichord. "As long as I can see it," his line of reasoning went, "I figured I ought to be able to play it." Ultimately, a secret song played on that very harpsichord would unlock the hiding place of the Sandalwood Box,

without which Lord British could not be rescued from the Underworld.

This Sandalwood Box linked the tales of *Ultima V* and *VI* by containing the black Moonstone Lord British used at the conclusion of *V* to hurl Blackthorn far from his realms, never to be seen again (unless, of course, he returns in *Ultima VII* or *VIII!*). *VI* commences when such a Moonstone is used not only by the Gargoyles to summon the player to Britannia, but also by the player-hero as a new means of transportation that can open a Moongate anywhere desired.

One dramatic difference in *Ultima VI's* presentation was that it lacked the traditional 3-D view of the dungeons, which had always been portrayed in a first-person perspective. This perspective allowed the player to see through the eyes of a person actually in the corridors and halls of some labryinthine serpent. Such mazes often led the adventurer into getting lost because of a bad map, while the player muttered that it didn't seem fair to be punished just because he wasn't cartographically inclined. Garriott says he dropped the 3-D dungeons because if he simply tossed random elements like a rickety bridge into the game, there would be no way of knowing beforehand if they would even look good when displayed as tile graphics.

"It might be something that shows up better in 3-D, or it might be something that looks better in 2-D," Garriott speculates, "I mean, who knows? But if I build a world with a 2-D restriction in the first place, and then say, 'Okay, now what works well within 2-D?' and then choose those things as my plot elements, I can choose a plot that is represented best in my medium. Whereas if I pick a book off a shelf and say I am going to base my game on this book, that story had better have some things that are best represented in 3-D and some that are best represented in 2-D, and it is much harder to take a random

story and force the game to it," he points out—another reason for fitting the story to the game rather than the other way around.

A Streamlined Interface

Another striking departure from the traditional surfaced in *Ultima VI*'s streamlined interface, for Garriott had been influenced by the work of Chris Roberts to do away with the 26 keyboard-based commands and supplant them with ten icons. In 1986, Roberts, whose *Times of Lore* was responsible for this dramatic renovation, had crossed the Atlantic from England to seek his fortune in the North American software scene. He'd originally hoped to find Denis Loubet and convince him to work on a Commodore 64 game, *Times of Lore;* Loubet had been freelancing in Austin, and when Roberts learned he'd gone to work for Origin, he wound up there himself.

When speaking of the new interface, Garriott sounds annoyed at himself for not having thought of it sooner, realizing that "it was clearly the way to have gone" in his early games. At an object, the player now simply hovers over an eye-shaped icon with the cursor, for example, and "clicks" the mouse to elicit a description of the object; the player then clicks on the brazier in the picture to elicit a description of the object— *interactive graphics,* as this style of interface is referred to in software circles. The new interface, in conjunction with the combat system's "auto mode," allows the player to set the combat strategy for each character and lets the computer dictate their individual actions in battle. This helps attain another of Garriott's goals: to make *Ultima VI* more accessible to newcomers to role-playing games. (By 1989 the audience had swollen far beyond its original core of dedicated gamers to comprise a mass market, many of whose members didn't know a Hit Point from a hit list.)

New Spells

The magic system also flowered. Around 80 spells rounded out the magic system as the game went into beta testing, but that means a lot more than 80 spells in most role-playing games, for *Ultima VI* is one of the few that actually lets a player cast all of its spells. Most games divide their spells into groups that can be invoked only by certain kinds of spellcasters, such as spells for Magicians, spells for Sorcerers, and so on. And in many role-playing games that boast having over 100 spells, close examination shows that their spells can often be broken down into four or five basic spell types (damage and healing, for example), and that the sole difference between most lies in the degree of damage or healing they do to a person or object. In *Ultima VI,* almost all the spells are unique, except for a few like the low-level and high-level healing spells.

One of the new spells, dubbed Armageddon by the staff, kills all life on the planet and was put in the game to tempt players to consider using it. The one Britannian it won't kill, however, is Lord British, whom Garriott has heavily armored against any sort of assault.

Chapter 12
The Notebook
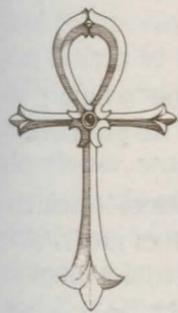
After nearly two years of development work on the *Ultima VI* world editor, Lord British surveyed the results and proclaimed the foundation for his new world firmly in place, a software-supported superstructure stocked with fun activities and a wealth of potential for puzzle-solving. It was ready for a story that would bind these elements into an epic of interactive fiction. As unlikely as it may seem for the author of a fantasy whose plot lines are so rich and colorful, an empire whose inhabitants are so stirringly brought to life as they stroll through Britannia's imaginary forests, mountains and towns, Garriott waits until the last possible moment to envision a cohesive plot.

Initially, as with *Ultimas IV* and *V*, he cast about for a theme based on a significant social issue like those underlying the events of those stories. In doing so with *Quest of the Avatar,* he

123

had transcended the realm of role-playing games that dwell on mapping mazes, slaying monsters, and racking up billions of gold coins, pieces of hardware, and Hit Points (a realm that, of course, included his first three *Ultimas*). "I didn't want to do another 'fight the evil bad guy' game," he recalls, the initial seed of thought that eventually grew into *Ultima IV,* but "...was more interested in changing what the *Ultimas* were to myself and the public." That new image was accomplished with *IV* and intensified and solidified with *V.* Garriott says that with "... *VI,* I stepped off and said, okay, I now have enough mastery of the form of the art, of the technology, that I can go gangbusters to make the world realistic, to take it to the extreme. And I can pick relevant social topics; I can decide what I want to say with the game now." For *VI,* that meant sticking with the concepts of virtue and responsibility for the player's actions in the world, an elaboration on the theme of his preceding games set in the kingdom of Britannia.

The Notebook

Now that he had a grip on the premise—which came to light while meandering with Greg and Nancy Passmore, his girlfriend Sherry Hunter, and Dallas Snell amidst the Mardi Gras–like atmosphere of Austin's boisterous Sixth Street in search of a night club that reputedly trafficked in paper cups of green Jello laced with cheap tequila—Garriott proceeded to the next phase of the project. Upon returning home that night, he opened a spiral notebook and jotted down the game's working title. Each *Ultima* has begun with such a journal—"the notebook," as it's called around the Origin offices, in tones of reverence usually reserved for the likes of the Grail diary stolen from Indiana Jones' father in Lucasfilms' *Indiana Jones and the Last Crusade,* or Sam Malone's coveted little black book on "Cheers." Handwritten in pencil, like every *Ultima* notebook, it opens with a one-sentence description of the game's concept, its basic story line. It goes on

to cover the manner in which the player is introduced to events at the outset, the first quest he must fulfill, and the initial flurry of clues. A manuscript composed entirely in simple English prose, with nary a notation penned in some abstruse programming language, the notebook's slim 15 pages of ideas would eventually list a number of miniquests that the player would face (though not necessarily in a specific order), all the characters and artifacts and places destined to play parts large or small in the grand scheme of things. Naturally, the exact nature of the latter elements depended on the machinations of the world editor and variety of interactions it made possible for the player who would someday soon explore that world.

Formulation of the Plot

For the first time in this phase of an *Ultima,* the formulation of the very plot itself, Garriott brought in a game designer from the world of conventional role-playing games to cowrite the story and collaborate on the notebook. Warren Spector, at 34 one of the *Ultima VI* team's eldest members, had been in the forefront of "paper and pencil" role-playing games for seven years. At Steve Jackson Games in Texas, he worked as an editor and developer, snaring his claim to fame as developer of *TOON,* the cartoon role-playing game. Then he moved to TSR, the company responsible for *Dungeons & Dragons,* where he did rules development games such as *Buck Rogers' Battle for the 25th Century* and *Top Secret/S.I.* (In the esoteric "cartoon cults" of Laguna Beach, California, however, Spector is still best known as author of the *Bullwinkle and Rocky* role-playing game, which he collaborated on with Dave Cook.) As coproducer with Garriott for the *Ultima VI* project, he soon found himself eating mountains of Chinese food, and scribbling down their spontaneous thoughts in the soy sauce-stained notebook.

Spector still recalls his first reaction to Garriott's backward method of designing a computer game: "When I heard that

Richard Garriott plots an *Ultima* as the very last step of the process, I couldn't believe it. It seemed so unnatural—the plot should come first. You know what you want to achieve in the game, then you make the game achieve it. And I am sure that works; in fact I'm producing some other ORIGIN games that use that process, so I know it works—but there is a method to the guy's madness. He knows what he is doing, and in something as big as an *Ultima*, knowing what the technology can support, so you don't have to go back and do all sorts of special coding, makes a lot of sense."

Spector compares Garriott's approach, which effectively defines the limits of the technology and lets the writers work within them, to the methods of a Hollywood film director: "Like John Ford, who made some of the finest western films ever. And Ford was working within the limitations of the western film, because there are some things you do in westerns, and some things you don't. You don't have 747s flying in and landing a whole troop of Indians. And the limitations don't determine the quality of the story—what you do within thos limitations deter- mines quality. It's the same with *Ultima*. I admit I was skeptical when I first heard about that, but now that I have been through the process, it works great."

The notebook really began to take shape during a roadtrip to the Dallas headquarters of Tandy a few weeks later. The game's executive producer, Dallas Snell, was behind the wheel of Garriott's maroon Jeep Cherokee as the three dungeoneers brainstormed their way across Texas, filling page after page of the notebook with ideas. Already festooned with an array of wondrous items, the notebook continued to expand as Garriott and Spector kicked around more story ideas and drew up lists of all the towns, villages, castles, and other places that would spring to life in Britannia.

Finishing Touches

By now Loubet had put the finishing touches on most of the tiles so meticulously devised and defined by Garriott, so Spector and Garriott went through the long list of artifacts and gathered the most provocative ones to include in the game that lay ahead. That weird lens, the Silver Serpent, a cast iron cauldron—with such compelling images as these, they could envision a plethora of exotic events and encounters. "We made an ideal list of the items we'd work with in the game," Spector recalls their next step. "Then we started saying, 'How can we fit this into the story, and what about this thing?' and we put that all into the notebook." This list filled the next few pages of the *Ultima VI* notebook.

Britannia already enjoyed a long and rich history, which had to be considered when looking for the appropriate places to situate the essential objects, events, and encounters. Objects and clues related to Compassion, a virtue associated with Bards, were concealed in the vicinity of the Shrine of Compassion, for example. In this manner every object on the special list was hand-fitted smoothly and logically into the fantastic setting of this imaginary land.

But a world without people, no matter how vivid its forests and hills, regardless of the wealth of detail lavished on its towns and castles, remains lifeless, longing for the human touch that will make it a world worth visiting. Their next task, then, was to create a cast of people to populate Britannia and animate this burgeoning kingdom as they performed their daily routines as cooks, farmers, and merchants. "One of my big goals," says Garriott, "and it always have been, is to make the world as natural and as complete as possible, to the point that it's really like living an alternative life. Not just walking around and fighting monsters, either—I want to be able to see people going about their lives, walking around, with their own motivations. I don't want everybody in that world existing just for me."

Often while they were writing the description of a character whose actions would precipitate a particular event, Spector says, "All of a sudden we would realize, hey, we need somebody on the other side of the world who can interact with this guy. So, one fellow will say, 'Sure I know the mantra of Compassion, or where to find the Shrine of Compassion, but you will have to help me first before I will give it to you.' There is almost an economic system of sorts, I guess, a trading of ideas for goods and services that takes place."

As towns and cities and secluded huts materialized across the meadows and valleys of Britannia like mushrooms in the dew of the jungle floor outside Palenque, Mexico, while the cob-blestoned streets of Britannia's centers of society and commerce slowly filled with people, so did the *Ultima VI* notebook gradually grow into a game. Previous notebooks had taken months or longer for Garriott to flesh out so firmly, but this one was polished off in three weeks. "We put in some pretty silly hours," Spector reminisces, "and ate lots of Chinese food putting it together, but we got it done in record time."

While the programmers continued fine-tuning the world editor and conversation system, a growing band of writers lurked outside their doors, sharpening their pencils with a broadsword rummaged from Garriott's office. Spector's job wasn't over now that the notebook was finished, the story was blocked out, and was being brought to life. To him fell the responsibility of managing the process by organizing and overseeing a time line that coordinated deadlines for programming, artwork, packaging, and all the other aspects of the project.

The Dialogue

In November of 1989, they turned the notebook over to Dr. Cat, the wayfaring computer game designer who had been with Origin since 1986. Never seen without his ten-year-old brown leather cap pushed down over a headful of wild reddish-brown

hair that matched his full beard, Cat was for several months the
only fulltime writer who would contribute to *Ultima VI*. (Later,
the scripts for the more than 200 characters were divided among
himself, Stephen Beeman, Todd Porter, and 'Manda Dee; Dee
was soon switched to the art department, however, where she
rendered most of the facial closeups.) "Basically, we presented
him [Dr. Cat] with the notebook," says Spector, "with the list of all
the characters and who they were, and their roles in the story,
and he started working on conversations." Garriott and Spector
would read his work and comment on it, suggesting changes
such as making the dialogue sound more British: "Tis good to
see thee again in these troubled times" and the like. Cat's conver-
sation for a specific character would often branch through
several optional passages that incorporated all the various things
Spector and Garriott had foreseen for all these characters to do
and say; then Cat's own contributions would follow.

"An insanely complicated process, plotting an *Ultima,*"
Spector shakes his head. "I've written a novel, I've written role-
playing games, I've written board games and I have never seen a
process this complicated. The interactions among all the charac-
ters—there are hundreds of people in Britannia now, hundreds
of them. Not only that, but there are hundreds of places and
people that players expect to see because they appeared in the
five earlier *Ultimas.*" Old or new, characters such as these would
prove pivotal to the player as sources of information on other
people, faraway places, the significance of arcane clues uncov-
ered elsewhere, and a variety of other topics related to one or
more of the miniquests, if not the game's main objective.

Garriott, Spector, and Dr. Cat holed up in a dingy south-side
cantina for days on end to deliberate the story and the assort-
ment of interrelated plot elements in the notebook. While Cat's
foremost function was to write the conversations that would flow
from the tongues of each character, he occasionally spotted
inconsistencies in the story or holes that had to be plugged up or

worked around. Cat elaborated on some of the characters, inventing new things for them to do and embellishing on the already intriguing behavior patterns that would enhance the player's interactions with these fantasy folk.

Weeding Out Characters

Weeding out the potential lineup of characters proved to be one of their initial problems. Many computer role players are so hardcore that they think of themselves as "adventurers" rather than gamers. They're well known for their propensity of growing

attached not only to the characters they create and through whose eyes they witness each new fantasy world, but also to the characters they meet and talk to and steal from and assist and occasionally slay on the killing ground. So of course it was impossible to get rid of a character like Lord British, who resides on the throne in each *Ultima*. Characters like Iolo and Dupre, with whom many players had quested for years, remained on the census rolls of Britannia. On the other hand, the designers had to wrestle with the possibility that those same players would also want to see something new in the way of Britannia's people. After all, some *Ultima* veterans hadn't been happy with exploring the same land in *Ultima V* that they'd already mapped in *Ultima IV,* and even a few of Garriott's longtime cohorts, like John Miles, had argued against staging another game in Britannia. The design team had to balance out these sorts of conflicts

between what the players wanted to see from previous *Ultimas* with what kinds of new things they could be pitted against in *VI*.

And just as these snags were being untangled, Spector ran into an unfamiliar problem, even for a game designer with such a varied background as his. "I was thinking in terms of how one would write a novel or a paper-and-pencil role-playing game— you know, with subplots and things that don't really relate to the major task at hand." Spector had imagined being able to incorporate a diversity of characters who, though they added shading and nuance to the game world, were not essential to the main goal. Spector found it hard to believe that, as Garriott had warned him, every single character they created would wind up playing a decisive role.

"I said, no, we'll have subplots, and it will be great," as Spector recalls. "We'll have little side quests that people can go on." But as their work progressed and they delved deeper into the process of turning the *Ultima VI* notebook into a full-blown game, it became clear to Spector that Garriott knew precisely what he was doing. "Everybody in the realm ended up being a crucial link in a chain that adds up to this immense, huge, wonderful, colossal world," Spector said, reliving an unmistakable sense of awe at having participated in the project. "It was a remarkably complicated process, and that notebook was the key to keeping it all under control."

Pulling It Together

While other team members translated the notebook into reality, John Miles continued refining the game's long-playing cinematic introduction, assisted with the graphics by Dan Bourbonais and Glenn Johnson. Miles, an old hand on the Apple, had to master the IBM in order to develop the graphics library that supports this sequence. Just to put the player in the right mood as he begins the quest, Origin spent as much money on this introduction as some companies spend on an entire game. It commences with a

view of a room, where the player watches a television with animated characters; then the scene pans slowly across the living room to a window. Outside, a towering thunderstorm erupts, sending jagged lightning bolts to the earth and thunder rolling through turbulent skies. By pressing an IBM clone's number keys 1 through 7 while in the living room, the player can change channels on the TV set, an undocumented feature that Miles slipped into the game as he worked.

To save time while testing various elements of the game, the programmers installed a battery of "undocumented cheats" in *Ultima VI*. The "ethereal mode," which let a designer walk through any kind of barrier, is a good example of their utility, but for obvious reasons most were ripped out of the code at the last minute. Two major cheats remained. By pressing Alt-2, 1, 3 you can learn your party's current location and other valuable information. And even better, Iolo the Bard will produce a complete menu of cheat features once the player primes him with the correct password (both are described in more detail in this volume's section of clues).

Chapter 13
Getting His Act Together and
Taking It on the Road to Yew

By December, 1989, as East Germans still danced atop the Berlin Wall and American troops searched the Nicaraguan jungle for Evil Wizard Manuel Noriega, Garriott led his crew on their final mission—assembling the clues and characters for the proliferation of quests described in the notebook. The process is best illustrated with how they handled one of the game's initial quests. The player needs to find an artifact that, as a sort of Rosetta Stone, enables him to decipher the Gargoyles' Book of Prophecy. One notation in the notebook describes a pirate who possessed one piece of a map essential to this miniquest, went on to identify the location of the dead pirate and his piece of the map, and gave away the whereabouts of the individual who can provide clues to the location of this pirate and the others—some living, others dead—who hold more bits of the map. But it didn't say exactly how the player would find any of these. That was the puzzle to be

solved by the designers and programmers as they collaborated in bringing the notebook's people, places, and things to life.

In order to concoct a chain of incidents and interactions that would logically lead the player to the dead pirate and his scrap of the map, the programmers flipped through the notebook, which held every clue and the information required to obtain them. It told things such as the direction the pirate was traveling when last seen, that he had been staked out to die in the desert and devoured by thousands of ants, that his piece of parchment map was lying beside his body. The programmers would ask themselves where would this chain begin and which characters would come first? Naturally, Lord British would have to impart information about the main quest, background information about the discovery that their world is flat, how the Underworld collapsed, and information on changing the face of Britannia, and of the Gargoyles desecrating the shrines of Britannia. Lord British's information steers the player to clues from another character and eventually leads him to the Book of Prophecy and the necessity of deciphering it, which brings up the tale of the pirates and their scraps of the map.

"When we came to the part with the pirate who is dead in the desert with the ants," Garriott explains, "we said, 'We know that's where the piece of the map is, we know the guy that originally told you about the dead pirate went in that direction. Now who do we now need in between, to link these people and events.' And that's what this notebook is. It is every individual; what, if any, important information they have, every single solitary clue path that can tell you each next piece of information you need to get to the solution." As the creative process continues, the writers turn up holes in the plot, and the playtesters inevitably run across similar inconsistencies that must be resolved, inevitably spurring more revisions of the world editor and UCS.

The Secret of Success

Because the notebook serves as the cornerstone of each *Ultima,* the players most successful in solving the games maintain similar notebooks that list each town, every person dwelling there, and every scrap of information gleaned from those individuals. In a sense, they are re-creating Garriott's original notebook as they pursue the quest, and Garriott explains why this approach, mimicking the notebook exactly, is the best one for solving an *Ultima.* "In a *King's Quest* (he refers to one of Sierra's animated graphic adventures), "you go from A to B to C to D in a linear fashion, usually forgetting each one after completing it because you've moved onto something else." In the case of an *Ultima,* however, you might be scouring the land for clues about the pirate and stumble across hints relating to a completely different quest or puzzle. By noting this in a journal or notebook, the player will have an easier time solving that quest when he gets to it later, since he can just look up the name of the person with the clue and see what he had to say, saving time in trekking all the way back there.

"I do it like a cloud," Garriott said, explaining how he likes to give the player a small and tangible quest to accomplish at the outset of a game, which allows him to get the feel of what's happening before everything breaks up into a miscellany of miniquests and puzzles. "You don't have to actually start working the cloud right away; all you have to do is say 'I am working on this problem,' and make notes on all the people and the information they might have, which leads to other paths, other kinds of quests." This way the player can focus on a solitary path, and when he reaches the end of that trail, he can go back and pick a clue from his stack of other bits of information. Exploring that path, he'll amass even more information for his notebook, which might lead him in new directions. So the player basically has this collection of quests to

work on, but can tackle them in what he deems the most interesting order, as opposed to following a linear path from point A to B and hopefully Z (and in the process, drawing more maps than Rand & McNally).

Since the marathon brainstorming sessions of Garriott, Spector, and Dr. Cat had led the search for a story in unanticipated directions, along untrod paths till then unseen, the programmers sometimes had to fish for loopholes in the limitations Garriott had imposed on the project. This meant applying their own puzzle-solving skills in order to make it possible for the player or a nonplayer character to engage in a new activity or interact in an unanticipated fashion. In this way, the world editor co-evolved alongside the story, a result of the creative interaction of the band of people working on *Ultima VI*. (Practically everyone at Origin contributed to the story in one way or another.)

Finding a Name

It was about this time that Garriott also set out on a miniquest of his own, to find a subtitle for the game. The concept for the cover art and subtitle had commenced simultaneously, as with each *Ultima*. Denis Loubet had painted an enticing piece of art for the cover of the package, a human warrior with one foot planted on the chest of a dead Gargoyle (inspired, incidentally, by a classic painting of the patron saint of witchhunters). The list of potential names began as two pages of buzzwords and concepts that begat a series of related names. But Loubet's cover concept was finalized first, and he had to have a subtitle over the week of November 11 in order to add it to the painting and get it to the printer on schedule. The name that appeared on the current version—"Attack of the Blue Meanies"— spoofed the fact that not only did the game lack a name, but that at the time they still didn't even have a name for the Gargoyles. The list of buzzwords, fortunately, had produced a

string of potential names like "Beyond Britannia," "The Evil One Returns," and "The Book of Prophecy" for the game's tag line. Garriott tried them out on everyone he encountered—from game reviewers who dropped in for a peek at *Ultima VI* to the guy delivering Domino's pizza.

Names like "The Book of Prophecy" were high on Garriott's list, as he had noticed that the last two games, *Quest of the Avatar* and *Warriors of Destiny* shared a certain rhythm that was in synch with his growing perception of *IV, V* and *VI* as a trilogy of sorts, with *VI* conceivably the final curtain call for the world of Britannia. As the deadline drew closer, Garriott kept running the names past everyone at Origin, in the parking lot, or waiting tables in the crowded jazz clubs and honky tonks of downtown Austin. It was while peering at the cover art in the early morning, as dawn crashed down on his brow like a brace of Orcs in a narrow gorge, that Garriott finally convinced himself, Loubet, and Keith Berdak, another illustrator at work in the art department at the time, that *The False Prophet* was most fitting. Garriott saw it as a sort of wordplay that told the player the truth about the story, but in a deceptive way left him in the dark as to the identity of the False Prophet.

Final Modifications

The flowery scripts of conversation cobbled up, for every character in the land of Britannia soon found its way to the desk of Cheryl Chen, and was eventually followed there by Dr. Cat. She had originally designed the conversation according to Garriott's specificiations, but in these meetings Cat would point out things such as an unpredicted twist in the plot that now required a nonplayer character who could do something that was currently impossible in the context of a conversation. Chen would then modify the conversation system to accommodate the plot changes, and a sort of give and take between the various team members emerged as they plunged ahead toward

a deadline with destiny (which Spector had clearly marked on everyone's portion of the master time line).

Herman Miller pursued his mission of manipulating the characters onscreen during the quest. He made sure the members of a player's party would faithfully follow the party leader around the screen in remarkably intelligent ways. This guaranteed the program would realistically resolve the outcome of every swordslash and spell, and further honed the software routines that would assume control of each party member's combat actions should the player grow weary. Miller also wrote several tunes for the game's soundtrack.

Some of Ken Arnold's melodies from previous *Ultimas* had been chosen for inclusion in *VI*, ditties like "Captain John's Hornpipe," which is the seafaring music that plays while you're sailing a ship, and the "Ultima Theme," which plays during the boot-up sequence. Also passed down from previous *Ultimas* was the tune that plays when the you meet Lord British in his castle—"Rule Britannia," adapted from a traditional British song. The song heard while the player meditates at the shrines in *Ultima V* was also picked up for *VI*. Called "Stones," it was written by David Watson—one of Garriott's colleagues from the Society for Creative Anachronism, and the real-life inspiration for Iolo. (Watson's wife also appears in the series as Gwenno.) Watson, who hand-crafts crossbows for a living, also plays the lute and originally penned the tune and lyrics about Stonehenge. This location paralleled one of the Moongate locations in *Ultima V,* a coincidence—or synchronicity—that led to its inclusion in both games.

Composition of new music had commenced after Thanksgiving in 1989. Herman Miller, who traces his career in programming back to an early interest in using computers to write music, conjured up new pieces for scenes in which the player travels outdoors and through the dungeons, as well as a theme for the Gargoyles. The Gargoyle melody is perhaps his most in-

triguing, as its notes strike a perfect harmony with those of the "Rule Britannia" theme; this will evade most players until at the game's conclusion, when both tunes play simultaneously. At the last minute, *Knights of Legend* author Todd Porter composed the majority of the original music. Porter, whose uncle is country and western guitar picker Chet Atkins, did the tunes for the boot-up, introduction, and character creation sequences as well as some of the melodies heard while walking around outdoors.

"Crunch Mode"

By early December Garriott had gone into what he dubs "crunch mode," devoting 14-hour days to designing the castles, towns, and other buildings, making up mazes, and filling dungeon rooms with monsters. "I don't have a favorite facet of this two-year development process, but do have a least favorite—the last two months, always," he said shortly before Christmas. "Like right now, I have absolutely no life outside this room, haven't shaved in three days, I'm scared to death as to whether I'm going to get it out or if people will like it; there's a great deal of anxiety. Most of the 'soft work' has been done, all the decisions have been made. It's a matter of sealing off all the loose ends and getting the work done, so to speak." He had to travel to Las Vegas for the Consumer Electronics Show in two weeks, but continued working on the game there when not busy showing it to reviewers and marketing people. When he returned to Austin on January 9, Garriott resolved to complete the project by the first of March—and swore he would not shave until it was done.

The Final Stretch

From the day the notebook's contents began their march off the pages and into the memory locations on Garriott's hard disk, nearly eight weeks passed before *Ultima VI* was ready to be playtested in late January. Definitions of alpha and beta tests vary from one developer to the next. At Origin, the alpha test consists of testing the individual systems—combat, conversation and so on—deliberately attempting to crash the program by casting spells on things a player normally wouldn't, picking up everything possible, repeating an action several times, and conducting every bizarre and unanticipated action imaginable. Working "blind," without reference to the notebook and its clues, there were four official playtesters whose sole function, under the direction of Alan Gardner, was to play *Ultima VI* all day and most of the night: Mike Romero, Marc Shaefgen, John Watson, Paul Malone (son of *Moebius* author Greg Malone, who had joined the team only months earlier and wrote the manual for *VI*). Three or four more people around the office jumped in when they had a few minutes (or hours) to spare.

But the game they played was not fully solvable during the alpha test, for another thing they sought was the identity and nature of the little holes in the program that would have to be patched up before the beta test. One playtester found he was unable to pick up an artifact vital to the quest, for example, and minor troubles cropped up in combat and conversation. By this time, Garriott was wrapping up another of his tasks by delegating the monsters to their individual dungeons. Disaster almost struck the night of February 9, when he entered the main door of the office building. A five-pound steel plate fell six feet from the top of a door and smacked Garriott right on top of his head. Out of costume, he was not protected by helm nor crown, and awoke in a pool of blood. Rushed to the hospital, he was X-rayed, and since no concussion was found, returned home to work on the game there until it was com-

plete (he worked at home, not because of the accident, but because he found he could focus on the project more intently there than at the office). Soon he'd accomplished all the original work that would go into the game, a momentous event that occurred at 6:30 a.m., February 20, 1990. Garriott had beaten his personally imposed deadline by a week.

To make sure it was actually solvable before the serious bug-hunt began, he'd been ready to go through it himself in a nonstop, 48-hour run-through of the game. But this time playtester Marc Shaefgen became the first person to solve *Ultima VI* later that same day. Other alpha testers helped guarantee that a player will be able to find all the clues and piece them together logically and reasonably—and without pounding his or her head against a brick wall for several days. After the final beta test, which tracked down every identifiable bug, Lord British pronounced the game ready to go and shipped it to an out-of-state outfit for duplication. (If it did ship in March, as scheduled, *Ultima VI* earned another record for Garriott and Origin as the first *Ultima* to ship on time—or even within a few months of its original shipping date. *Ultima IV* and *V*, for example, were both over six months late.)

Garriott and his crew could finally stage one of the most legendary parts of each *Ultima*'s development, the party that celebrates this occasion—and Garriott could finally shift out of "crunch mode" and shave that regal beard. *The False Prophet* complete, he looked back on the past two years and felt a sense of relief as much as one of satisfaction. For even with vision and insight and a party of programmers, writers and artists onboard, Garriott had often been forced to lean on the ship's wheel to brace himself as he steered the project through stormy waters and rocky reefs, at last emerging triumphant in his quest for the best *Ultima* ever—until he envisions the next one. For though Lord British mentioned it but once and then

only in passing, somewhere in a top-secret room in ORIGIN's Austin offices, a lone programmer is at this moment hovering over a keyboard like a mage peering into a crystal ball, conjuring up more of the software tools with which *Ultima VII* will be fashioned.

Part III

The Solutions
Ultima I–VI
How a Sheboygan Travel Agent Slew Mondain, Minax, Exodus and Assorted Other Fearsome Fiends

Part III

The Solutions
Ultima I–VI
How a Sheboygan Travel Agent Slew
Mondain, Minax, Exodus and Assorted
Lotsa' Fearsome Fiends

Ultima I
How Alfred from Sheboygan Slew Mondain the Mundane

When Alfred accepted Lord British's quest to exterminate Mondain, Sheboygan's best travel agent faced the first of many decisions: whether to enter those lands as a Fighter, Mage, Cleric, or Thief. His intuition told him that Mages and Clerics, with a greater variety of magic spells upon which to draw during the adventure, would be most effective character class. But then again, he pondered, a Fighter's ability to wield any weapon and don any armor might give him a valuable edge in combat. Hesitating, Alfred consulted his oracles and considered the Thief's natural ability for stealing food, weapons, and other gear from the shoppes in each town and castle, wondering if this would be his best choice. Realizing the judicious use of the magical "save game" option would effectively grant any character class the same ability, he finally determined that it mattered not

which class he chose, for even though each class possessed unique advantages and weaknesses, any of them could handily complete the quest. So in the end he flipped a coin of the realm (one of those rare four-sided coins, of course) and let chance choose for him—a Dwarf Fighter he became, from that day hence. Then came the matter of allotting points among the various Abilities. Since he correctly suspected the adventure would offer ways to raise each Ability during his jaunts across Sosaria, he divided them up as evenly as possible, assigning a few extra ones, however, to Agility in order to improve his chances of landing a blow on his opponents during battle.

Armed and Dangerous

Assessing the flimsy armor and weapon with which he'd been provided upon arrival on Sosaria, Alfred made his way to the first town in sight and found shoppes that sold more powerful equipment. He had precious little gold to spend, but that made no difference to such a wily character as he. All he did was invoke the "save game" command before entering town, then step behind the counter and steal, steal, steal. (When he did happen to get caught by a Merchant, Alfred simply restarted from his saved position, a capability for which he wished dearly when he
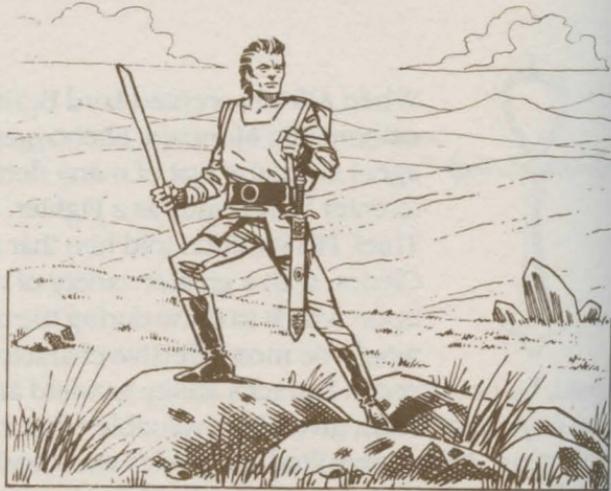
146

returned to Earth months later.) While in townes and castles, he wisely avoided battling any Guards, for he knew himself to be far too weak at this stage.

Initially he strove to outfit himself with Chain or Plate Armor, though he knew in his heart that Vacuum or Reflect Armor would better serve him throughout the quest. An old hand at combat, he chose "Distance Weapons" as his main armament, aware of their effectiveness at distances of three or four squares away from a target; he also knew that the enemy, unless similarly armed, wouldn't be able to hit him until moving within range, by which time he would usually have had time to put the beast out of its misery. As back-up weapons, he scooped up a Blaster, which, like the Phaser, he deemed more powerful than a Pistol, even though he later realized even that puny weapon would have worked almost as well throughout the quest.

Growing Up Fast in Sosaria

Before seeking a single quest upon which to embark, Alfred set his sights on racking up Experience Points and gold, for the youthful adventurer knew well the value of power and money. This entailed a series of sorties into nearby dungeons to slay monsters and fill his coffers with their gold. Upon observing that the deadliest fiends of Sosaria dwelt on the lowest levels of the catacombs, he confined those early forays to the upper levels. He ventured into the depths only after he'd grown strong enough to contend with the beasts below, who guarded treasures far more lucrative than their weaker counterparts. As he explored these labyrinthine passages, Alfred carefully searched for traps, and carried Ropes and Spikes with which to free himself on those occasions when he forgot to do so, winding up in a pit.

After several weeks of dungeon delving, he had grown strong enough to face the even more perilous dangers he knew lay ahead. Alfred made his way to the nearest castle and spoke with the King in his Throne Room. (For an offering of pence, the King

promised to grant him additional Hit Points, but Alfred turned down this opportunity, knowing he could get more of them faster and cheaper by entering the dungeons, killing a few monsters, and popping back to the surface, as he'd been doing all along.) A helpful Bobbit had told him it mattered not the order in which he visited the Kings and fulfilled the quests, so Alfred had chosen to commence with Lord British, of whom he'd heard so many rich and colorful tales during his travels in Sosaria. That same Bobbit had informed him of the rewards to be showered upon him for successfully completing the Kings' quests: four would lead to advancement in the various Abilities, while four others would net him the Gems vital to operating the Time Machine rumored to be the sole means of reaching Mondain. As much as Alfred appreciated this advice, he rankled at the Bobbit's suggestion to purchase a Frigate or an Aircar in order to traverse the oceans, for even an Earthling afoot on a faraway planet could have figured that out for himself. He gleaned clues more useful than this by consulting bartenders in the pubs around the land.

The Quests of the Eight Kings

"To the grave of the Lost Soul you must journey," Lord British announced from his throne, "and upon your return, I shall raise one of your Abilities." Alfred roamed far and wide in search of the elusive grave, finally finding it in the northwest corner of the lands of Danger and Despair. Next he dropped in on the King of Olympus, who commissioned him to beat a path to the legendary Pillar of Ozymandias, a monument Alfred at last located in the southwest corner of the lands of the Feudal Lords. Upon visiting Barataria, Alfred was assigned to seek out the Southern Signpost, which he sought long and hard before seeing the light at the end of the tunnel in the lands of the Dark Unknown, somewhere in the middle part of the continent's eastern section. The next leg of his journey led him to the castle of the White

Dragon, whose King was bent upon knowing the long-forgotten location of the Tower of Knowledge. Alfred removed his helm, scratched his head, and strove to recall where he'd sighted that structure weeks before. At last he remembered it had been at the outset of his mission for Lord British, in the northeast corner of the lands of that very King. (Years later, while discussing his feats with another adventurer in a bar back on Earth, Alfred learned that these quests had been scrambled somewhat when the world-makers known as Origin had revamped the world of Sosaria for the *Ultima Trilogy* version of *Ultima I.* In the original *Ultima I,* he was informed, Lord British sends the adventurer after the Tower of Knowledge, Olympus' King to the Southern Sign Post, Barataria's monarch dispatches him to Ozymandias, and the White Dragon's lord insists on a trip to the Grave of the Lost Soul.)

Gems, Gems, Gems

With his Abilities at their peaks, for each King had rewarded him in the same manner as had Lord British, Alfred embarked upon the next stage of his long-range goal: to snare the four Gems that would activate the Time Machine. Upon chatting with the monarch in the castle of the Lost King, he realized what a fortuitous decision he'd made in accomplishing the Ability-enhancing quests first, for the next four quests centered on slaying some of Sosaria's most heinous monsters. The Lost King wanted him to to slay a Gelatinous Cube, a beast capable of devouring Alfred's very armor. This he accomplished by descending to level 3 of the nearest dungeon, though he learned that any dungeon would have sufficed (a fact that holds true for the other quests as well). King Shamino, whose true identity Alfred never suspected, requested the head of a Balron, served up with barbecue sauce and a side order of cole slaw. Alfred tracked down the Balron on level 9, just in time to keep his appointment with the King of Black Dragon, who had his heart set on the slaughter of a Lich, a

loathsome thing that lurked on levels 9 and 10 of every dungeon in the land. And Rondorin's King simply *insisted* Alfred eliminate a Carrion Creeper by exploring level 3 of the most convenient catacombs. All four Gems finally in hand, Alfred wiped the Lich blood from his blade and scouted about for his next mission— surprised was he to find that it lay, not on Sosaria's surface or in its subterranean chambers, but in the stars overhead.

An Ace in Space

During his ramblings about the land, Alfred had seen a rocket ship for sale, and now, after donning a Reflect suit (though a Vacuum suit would have sufficed), he purchased one and blasted off for outer space. (Later he found out this could have been done at any stage of the quest.) His mission again involved combat, but this time with enemy spacecraft. To earn his wings as a Space Ace, he had to shoot down 20 of them after first docking with the space station and choosing a fresh ship. His first time out was a failure, for he carried not the 500 gold coins demanded by the stationmasters. Upon returning with the gold, Alfred had to pick between a large ship and a small one. He elected to enter the fray aboard the small vessel, for even though it carried less fuel, it was protected by better shields. To avoid getting lost in space, he quickly mastered the art of performing Sector Scans, and for insurance, relied on the ever-useful "save game" feature before taking off on each mission.

Rescuing the Princess

Alfred had spied a lovely Princess locked away in each of the castles he'd visited during his many quests, and upon achieving his effort to become a Space Ace and returning to Sosaria, made up his mind to rescue the prettiest one and make her his bride. In the castle of Lord British, he struggled to pick the lock and bash down the cell door, but to no avail. His frustration spurred him to kill the first person he met, who just happened to be the King's

Jester, and he was amazed to find the key to the cell tucked away in the Clown's costume. (What Alfred, who got lucky the first time out, didn't know was that the Clown sometimes carries the key to the wrong cell. If this happens to you, restore that saved game and keep killing Clowns until obtaining the right key.)

After he unlocked the gate and freed the Princess, she thanked him with a reward of 500 coins, 500 Hit Points, and 500 Experience Points—and directions to the Time Machine he so avidly sought. (Had Alfred rescued her before becoming a Space Ace, however, he'd have received only the coins, Hit Points, and Experience Points.) However, the wench refused his hand in marriage, and since he was immediately set upon by the Castle Guards as soon as he killed the Clown, Alfred didn't stick around to ask her a second time. (Looking back on that experience, Alfred would someday express relief upon being informed that it mattered not which of the eight Princesses he rescued, for each held the secret of the Time Machine's location.) Upon reaching the Time Machine, he once more saved his progress before proceeding.

Meet Mr. Mondain!

Boldly he stepped inside the Time Machine and activated the device by using the four Gems. In the blink of an eye, Alfred found himself in the heart of Mondain's lair, confronted with the source of the evil that had plagued Sosaria for so long. With Sword and Phaser he bore down on the demon, aiming straight between its blood-maddened eyes and slaying Mondain with his first assault. But just as Alfred rejoiced at his ultimate victory, the fiend transformed into a bat and fluttered about the room briefly, then turned back into Mondain! Wheeling about to attack, Alfred happened to catch the glint of a pulsating Gem in the center of the lair, a jewel that he instinctively surmised as the source of Mondain's power. Racing to the Gem, he grabbed it and watched the multifaceted crystal disintegrate into dust. With Mondain's

source of power destroyed, Alfred smote the foul creature again and again, until he had forever vanquished the instigator of the First Age of Darkness.

Townes, Castles, Dungeons, and Monuments

During his journeys in the lands of Sosaria, Alfred kept copious notes on his discoveries. These are made public here for the first time in the history of Earth and Sosaria, in hopes they might prove valuable to other adventurers who travel there. (Due to flukes in time and space, names of certain townes may have been changed in Sosaria's *Ultima Trilogy* incarnation.)

Continent 1: Lands of Dungeon and Despair

Castles:

> White Dragon (middle top of lower continent)
> Shamino (southeast shore of upper continent)

Dungeons:

> Doom (middle of upper continent)
> Skullsmasher (mid-top of upper continent)
> Dead Cat's (southwest part of lower continent)
> Dead Cat's 2 (island in middle of lower continent)
> Spinebreaker (east edge of upper continent)
> Free Death's Hole (northeast tip of lower continent)
> Hole to Hades (mid-bottom of lower continent)
> Dead Man's Walk (northwest part of upper continent)
> Morbid Adventure (island east of White Dragon)

Monuments:

> Grave of Lost Souls (island northwest of upper continent)
> East Signpost (island northeast of Skullsmasher)

Townes:

> Brother (island between east sides of continents)
> Garlab (east of White Dragon)
> Dextron (northwest tip of lower continent)
> Turtle (southwest tip of lower continent)

Bulldozer (mid-southern part of lower continent)
Magic (southeastern part of lower continent)
Wheeler (mid-southern part of upper continent)
Lost Friends (northwest part of upper continent)

Continent 2: Lands of Lord British

Castles:

Lord British (on shore of bay, mid-continent)
Lost King (northwest of Lord British)

Dungeons:

Perinia (northwest tip)
Lost Caverns (northwest tip of lower section)
Death's Awakening (west tip of peninsula in southeast area)
Mines of Drash (north of Awakening, across bay)
Mines of Drash 2 (east side of continent)
Doubt (southeast area, near eastern bay)
Dungeons of Montor (northeast part of continent)
Unholy Hole (mid-north area)

Monuments:

Tower of Knowledge (island northeast of continent)
Pillars of Protection (island north of middle section)

Townes:

Montor (southeast at tip of bay)
Yew (south shore of northwest peninsula)
Fawn (south shore of southwestern area)
Britain (near Lord British)
Tune (southeast tip of continent)
Grey (northeast part of continent, on shore)
Paws (northeast of Lord British)
Moon (east shore of continent, on little bay)

Continent 3: Lands of the Feudal Lords

Castles:

     Black Dragon (southeast shore of big southern bay)

     Olympus (north shore of big southern bay)

Dungeons:

     The End (mid-west shore)

     Metal Twister (southwest section)

     Viper's Pit (northwest area)

     Viper's Pit 2 (mid-east shore)

     Tramp of Dream (northwest area, west of bay)

     Slow Death (south of Imagination)

     Troll's Hole (west bank of river from big bay to ocean)

     Guild of Death (island in big bay)

Monuments:

     Southern Signpost (east shore, east of Black Dragon)

     Signpost (island northwest of continent)

Townes:

     Wealth (northeast tip of continent)

     Imagination (south of Wealth)

     Stout (southeast shore of southwest lake)

     Gauntlet (northeast of Olympus)

     Ponder (east bank of river from big bay to ocean)

     Poor (on shore of northwest tip)

     Clear Lagoon (middle north section of continent)

     Nassau (near Olympus)

Continent 4: Lands of the Dark Unknown

Castles:

     Rondorlin (midway up east side of continent, on shore)

     Barataria (big island in middle bay)

Dungeons

     Scorpion's Hole

     Savage Place

Labyrinth
Hercules Died Here
Harpy's Horror
Gorgon's Hole
Dead Warriors
Harpy's 2
Avarie's Hole

Monuments:

Pillar of Argonauts (island due west of mid-continent)
Pillar of Ozymandias (island southwest of continent)

Townes:

Gerry (east shore of north side of continent)
Owen (middle of continent)
Snake (southwest shore of continent)
Linda (south shore of continent, on bay)
Wolf (southeast tip of continent)
John (north of Wolf)
Helen (north part of big island northeast of continent)
Arnold (near Barataria)

Ultima II
Through the Time Doors
and Back

Two years after Alfred returned to Earth, the monsters followed like a pack of pigeons pecking at a trail of bread crumbs—*big* pigeons, with slavering fangs and laser-sharp talons. From Sosaria marched Minax, Mondain's brightest student in the School of Evil-doings, to cloak Earth in the Second Age of Darkness as she sought revenge for her Master's death. Only by mastering the secrets of the Time Doors, which connected distant parts of Earth at various points in time—from 9 Million B.C. to 2112 A.D.—could Alfred hope to topple Minax's heinous reign. In addition to the five different worlds Alfred brought to light on this expedition, Sheboygan's best travel agent journeyed to Mars, Jupiter, and even Planet X, keeping copious notes on all the finest restaurants, hotels, and pubs along the way. For the ever-ambitious Alfred had been inspired to someday write a travel guide to the stars, and was indeed mulling over the title

157

Hitchhiker's Guide to the Galaxy when a similarly titled book was penned by Douglas Addams.

Wizard or Warrior?

Upon observing the citizenry and the strengths and weaknesses of various combinations of race, sex, and class, Alfred chose to travel about the land in the robes of a Human Wizard. A Hobbit Cleric, he mused, might have been almost as effective, as would the role of an Elf Thief or a Fighter with a good balance of Strength and Dexterity. Had he been born female, Alfred concluded, the extra Charisma enjoyed by women would have reduced the cost of buying food and equipment, so a Female Elf Fighter or Human Wizard would have had a better time of it than many others. But he soon learned that no matter which race, sex, or class an individual might be, Dexterity was the attribute to be enhanced as much as possible.

Of Hit Points and Attributes

When Alfred's supply of Hit Points ran low, he cast about for a means of replenishing them. Not only did he find a way of doing so, by Transacting with Lord British, but he also found two places where the time-traveling monarch would dole them out. Lord British maintained two castles, one in 1423 B.C., the other in 1990A.D., which made them almost as convenient as popping down to the 7-11 on the corner back in Sheboygan. Alfred noted that King initially gave him 300 Hit Points for every 50 gold pieces he offered. As his supply of Hit Points increased, however, Alfred found that Lord British cut back on the ratio. As he approached 9,999 Hit Points, for example, Alfred was getting just 100 more for each 50 gold pieces. (Little could he have known that this was a safeguard designed to reduce the chance of rolling his mystical Hit Point counter back to 0, certain death for the hardiest of heroes.

Checking into the Hotel California

Alfred's favorite hotel on this trip was the Hotel California in beautiful downtown New San Antonio. In addition to excellent room service and little mints on his pillow at night, he appreciated a feature never offered by any Holiday Inn where he had stayed. By offering 100 gold pieces to the Clerk there, he was able to increase his Attributes four points. (Occasionally the Clerk would just say "Thank You" and pocket the money, in which case Alfred, still a rabid disciple of the Cult of Save Early, Save Often, would reboot a saved game, reenter the city, and try again.) Even more useful was Alfred's observation that, though the Clerk seemed to randomly pick the Attribute to be raised, that he actually did so in a very specific order, essentially rotating through the Attributes with each "move" Alfred made. This information enabled Alfred to choose the Attribute to be raised. To do so, Alfred would first "save game," then carefully follow the most direct route from the entrance to the Clerk, noting the Attribute that was raised when he paid the fee. If he raised Alfred's Strength when it was Intelligence he really need to work on, Alfred would just "reboot" and follow the same route to the Clerk (thus making sure he stopped directly in front of him in the same number of moves from the entrance).

But instead of going ahead and offering gold, which he knew would lead to a boost in his Strength, Alfred would lean on the magical space bar once to "pass" a move, then offer the gold to the Clerk. As an extra move had passed, the Clerk would raise a different Attribute. If that one too proved unsatisfactory, he'd reboot again and pass twice. Aware of the fact that Attributes always cycle through the same pattern, Alfred was soon able to predict on a given move precisely which Attribute would be increased. He was cautious not to get greedy and exceed 99 points in any Attribute, realizing the counter keeping track of it would roll back around to 0. Before leaving town, Alfred met an Old Man in the grove in the north part of town who offered to

sell him a Ring for 500 gold pieces. But he just pocketed Alfred's money and told him to come back when he'd been blessed, leaving him distrustful of the elderly to this very day.

Door Keys and Dungeons

Though he captured countless skull keys by defeating monsters roaming the landscape, Alfred wasted precious time trying to unlock certain areas in the towns with these keys. (Three keys, for instance, he needed to get into the airport at New San Antonio.) He eventually resolved this dilemma with the discovery that the Towne Guards carried the keys that fit these locks. The only way to get them was by killing a Guard, a dangerous task indeed, for they were exceedingly well armed. Dungeons and towers he did delve into throughout the early stages of his quest, but soon Alfred admitted they contained nary a clue nor object vital to the his long-range goal. A few, however, did house vast quantities of Tri-lithium, a necessary ingredient for space travel.

Anchors Away

Alfred had enjoyed many an ocean cruise to Bermuda and Hawaii in his career back at the travel agency, but never had he enjoyed so rustic a journey as aboard the sailing ships in this realm. Obtaining a vessel early in the quest proved to be one of his most effective moves, for it became apparent that, while on a ship, his food lasted longer, he suffered less damage when struck by the enemy, and he packed considerably more firepower in the form of the ship's cannon. More than yearning to see the world was required to sail a ship, however, and Alfred fought monster after monster before finally acquiring the Blue Tassle that enabled him to captain the flimsiest of vessels. And once he'd obtained one, the crafty quester was careful to avoid any Pirates he strayed across, for one of these cutthroats once stole his Tassle and left him landbound for several days. When unable to outrun them, he did his best destroy them as quickly as

possible, always checking his inventory before saving his progress.

To attract a ship, Alfred would hang out around one of the coastlines until one sailed into view. Instead of attacking the ship, he'd step onto it and Board the frigate. (He noticed that killing the Sea Serpents that wriggled past seemed to increase the number of sea-based encounters, such as ships, giving him another means of speeding up the ship-gathering process. This also increased his gold reserves, so Alfred spent several days simply slaying Sea Serpents, hardly an endangered species in Lord British's world.) Later in the expedition he found it extremely efficient to amass a fleet of ships and anchor some of them in each of the time zones.

Quite by accident, Alfred was soon in command of not one sailing ship but a massive armada of vessels, for he had learned the trick of "cloning" a ship in a way unanticipated even by the creators of this fantastic world (who would have dubbed his feat a "bug.") First he captured a pirate ship when it attacked him. This he did by boarding the vessel rather than fighting back. As soon as he sailed the ship west, it inexplicably duplicated itself, and the clone, or *rogue*, ship tagged along behind. Alfred soon noticed the clone could fire at him only if he remained still or moved adjacent to the ship. Once he reached the western shore, Alfred would board the rogue ship and sail east, north, or south—to any place he wanted to store ships. After placing all he needed in each time zone, he destroyed the rogue ship. He found Pangea a good place to start with ships, because the number of monsters there is so rapidly replenished. Ultimately, however, he found it desirable to put at least one in each of the five time zones. Havings ships stationed all along the coastlines of each continent vastly simplified his transportation problems, and he used excess ships to construct bridges between land masses. (By doing this early in the quest, Alfred was able to save

the kingdom from Minax weeks ahead of schedule, and get back to his travel agency in time for his own summer vacation.)

Port Boniface or Bust

Before Alfred looked in on this village near Lord British's castle in 1990 A.D., he was careful to ensure he was reasonably well equipped with weapons and armor and had *lots* of Hit Points. As he entered Port Boniface, Alfred spied a pair of Towne Guards standing on the far side of a sign heralding the name of the towne. Boldly he strode around this sign and attacked one of the Guards. But rather than stand and fight the Guard, Alfred immediately spun about and raced back around the sign, tricking the Guard into following him. Only when he had separated the Guards did he attack the one that was on his trail, for he knew he wasn't strong enough to finish them both off. The shrewd Guardslayer walked back up, attracted the other Guard's attention, and killed him. Doing-in these netted Alfred enough keys to unlock the doors that had kept him from getting hold of an Airplane (which he found in New San Antonio and in Pirates Harbor).

Alfred Does It His Way at McDonnalls

Ever the resourceful tourist, Alfred soon saw Port Boniface as a budget traveler's delight, for it was rather easy to steal food and acquire a ship in this city by the bay. Perhaps McDonalls didn't serve the tastiest meals in town, but he was able to steal so much food there that he didn't have to return every ten minutes or so to buy more, as he'd been doing until a fellow traveler tipped him to the take-out window trick. To shoplift a literal forklift full of food without getting waylaid by the Guards, Alfred walked around to the right edge of McDonalls and approached the take-out window. As long as the Merchant was on the other side of that window, Alfred could steal food at will. Eventually the

Guards started toward him, and he made a beeline to the right for the edge of town. Once outside, he "saved" before reentering and repeated this trick until he had enough food to last a considerable time.

With a single key obtained by doing-in a Guard, he managed to get hold of a ship in Port Boniface. First he used the key to open the door to the port area, where the people inside attacked him. Rather than taking them on, Alfred duped them into following him outside a fair distance, leaving himself enough room to maneuver around them so he could duck back and dash into the port. Once he'd hopped aboard a ship and seized the wheel, Alfred then raked them with the ship's cannon. Unlike the use of the Attack command, the Fire command did not set the Guards on his trail, he profitably observed. After finishing off the Pirates, he headed the ship out onto the open seas by exiting Port Boniface to the north.

Pirate's Harbor (2112 A.D.)

By docking at Pirate's Harbor early in the quest, Alfred was able to gather an ample supply of keys and free weapons and armor, which allowed him to save his gold to buy Attribute Points from the Clerk in New San Antonio. His ship's log offered this advice for those bound for Pirate's Harbor: "After you have got a fair amount of Hit Points (200–1,600 or more, depending on your Dexterity (the lower the Dexterity, the more Hit Points needed), bring one of the four keys you obtained in Port Boniface or elsewhere. Open the door to the port authority, which provides access to the ships in the harbor. Kill the person blocking your way and stand just outside the door until the Guards start to approach. As soon as you see them coming, head for the ships. Lots of Guards will chase you, so board a ship and Fire the cannon until you've wasted them all (yes, travel agents really talk like that—too much "Miami Vice"). Once they're all gone, head for the door again to lure the Guards who got caught outside the

door back in to you and the ship. You can continue this until you kill every Guard in the city but one (who is invulnerable, because you can't even hit him). When you feel you have enough keys, steer your ship out into the bay and go south to the island. Get out and stand on each Shield and Sword and get them. When finished, leave towne with a ship or plane and you will now have permanent transportation to leave in the time of Aftermath."

Monster Whompin' in the Time of Legends

When Alfred's Attributes all reached 45–50 and his Hit Points hit 1,200–1,600, Alfred looked over his equipment, checked to ensure he carried the best weapons and armor, and then headed for the Time of Legends. He had begun to realize that gold, gold, and more gold, along with all the Experience Points he could get his hands on, were essential to victory, and rumors rampant throughout the land whispered that no time zone offered so many such prizes as did the Time of Legends. Perhaps, thought Alfred one day, looking back on those glorious days of sword and spellbook, it was because the monsters propagated so much faster here than in any other location. He was glad he'd gone prepared, for the first wave of creatures he met were among the galaxy's most powerful. After slaying them all, though, he found that the percentage of the weaker monster types increased considerably.

Alfred, still picking up the fine points of tactical combat, was trapped, with no escape route, against some mountains the first time he went monster hunting in this era. Vowing never to let that happen again, he flew there in an Airplane the next time and parked it near a body of water before commencing to slay monsters left and right. With the Airplane nearby, he couldn't get trapped, and when a ship finally showed up, he commandeered it and used its massive firepower to wipe out even more monsters. Either way, Alfred was always ready to make a fast getaway via plane or boat. Instead of just knocking off monsters as he

stumbled across them, Alfred would sometimes circle Isle of Legends until the population grew to a reasonable level, about 15 to 20 of the beasts. By carefully keeping his ship two or three squares away from the coastline, he managed to avoid being attacked. Then when he was ready for action, he'd align the ship with one of the "stairsteps" of the coastline and fire away.

New San Antonio (1990 A.D.) and the Quicksword

Wherever he rambled, Alfred heard tales of the Quicksword, the most powerful weapon in all of *Ultima II*. He looked in every dungeon, towne, and castle for the blade, but it turned up in the confines of New San Antonio's jail, guarded by Santre the Swashbuckler. For $500 pieces of gold, Santre sold the Quicksword to Alfred, who found him in the second cell on the left. Another part of the price was the battle with the Guards blocking the door. Alfred, cunning in the ways of the round-trip fare, devised a simple means of outwitting the clumsy oaf. He flew his Airplane to the door of the prison and opened it. When the Guard chased him, Alfred flew the plane west and parked a few spaces away. The Guard, dimwitted as ever, followed. By repeating this a few times, Alfred lured all the Guards a good distance away from the door and then flew back and parked the plane in the doorway, which prevented the Guards from following and trapping him in the prison. After buying the Quicksword from Santre, he hopped back in the plane and flew out.

The Space Ship and the Blessing

Finally the day arrived when Alfred felt ready for outer space, so he set sail for Pirates Harbor. As essentials, he recommends wearing at least Reflective armor to survive in space but says Power Armor (sold at the Armory in New San Antonio) is best. Tri-Lithium, found after combat and in dungeons, is required to fuel the ship. Each voyage requires one Tri-Lithium, and many times the computer won't drop you in the correct spot after

Hyperspace, so Alfred always carries a few extra ones. He would have loved to have lounged about on Mars and Venus for months, but there was Minax to make mincemeat out of, so Alfred reviewed the clues he'd gleaned in his travels and decided the only planet he really had to visit was Planet X. There he found Ozy's Place and was blessed by Father Antos. On the way back to Earth, he did some sightseeing in towns on the other planets, which was interesting and worthwhile. Unlike most charter tours he'd been on, Alfred had to steer the spaceship himself, and soon learned the hard way that if he missed landing on the grassy areas, he'd crash and die. Aware that he couldn't save while in space, Alfred did so just before he entered Pirates Harbor, which allowed him to restore and start over when he crashed.

The Ring of Protection

Upon his return from Planet X, where he'd been blessed by Father Antos, Alfred made his way to the grove in the northern part of New San Antonio, where the Old Man sold him a Ring of Protection (for 500 gold) that allowed him to walk through fire unscathed. Later Alfred would live to appreciate his foresight in this purchase, for otherwise he would have been unable to cross the barriers of fire that protected Minax. As was his custom upon obtaining a rare and valuable item, he always checked his Status after being pilfered by a Thief, to make sure the Ring hadn't been stolen.

Alfred Meets Minax

Camped out on the edge of Port Boniface, Alfred surveyed his equipment before advancing on Minax in her fortress of evil. He strapped on his Power Armor, slipped on the Ring of Protections, buckled on his Quicksword, and powered up his Electric Toothbrush (okay, he didn't *really* need the Toothbrush to finish the

quest). He had raised his Hit Points and all his Attributes to 99, fully aware he'd need every single point in the showdown with Minax.

His footsteps echoed through the dank corridor as Alfred crept through the shadows. To no avail had been his stealth, for the fearsome inhabitants of the castle attacked him before he'd gone five feet. Quicksword slashed through hide and bone, pale blood oozed, and eyeballs splattered as he slew them every one, all but the invulnerable Balron. This devilish creature he trapped in a convenient location by Negating Time, a trick he'd used earlier on Devils and other deadly beasts. As they awoke from the Negate Time spell, the monsters would generally move in a straight line toward him, a response Alfred used to lure them into the Museum, Apothecary, Torture Chamber, or similar location from which they would have trouble getting out independently. By now he was loaded, his pockets jingling with more than enough coins needed for the Negate spell.
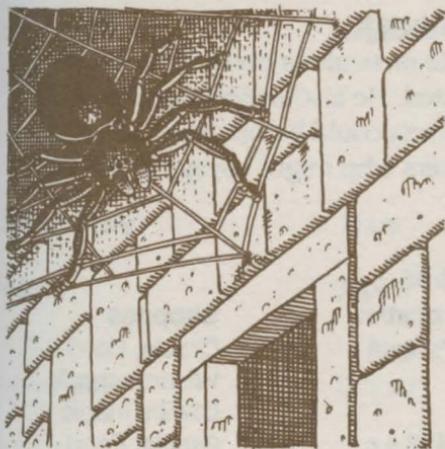
As Alfred reached the northeast corner of the castle, behind the force field, he finally caught sight of his adversary—Minax the Meathead, as he liked to call the monster. Whacking her once with the Quicksword, he was startled to see Minax vanish and then reappear in the blink of an eye in the castle's southwest corner. Boom, he smacked her again, only to watch her teleport back to the northwest corner. Only after scoring another half-

dozen direct hits did he at last revel in the sight of Minax falling to her knees and crawling about the cold stone floor in her own thick blood. On his way out of the castle, Alfred shrewdly avoided passing the area where he'd trapped the Balron, which otherwise might have escaped and avenged the death of its master.

Castles, Townes, and Villages

During his travels, Alfred made meticulous notes of the facilities available in each place he visited. He also maintained records of where valuable items and artifacts could be obtained, information bound to be useful to others who might voyage to through the Time Doors.

Table 2-1. Available Facilities

Name	Location	Shoppes
Baradins Town	Pangea	Oracle, Food, Wizards magic, Clerics magic
Le Jester	1423 B.C.	Oracle, Food, Wizards magic, Clerics magic
Towne Linda	1423 B.C.	Weapons, Armor, Stables, Pub
Lord British's Castle	1423 B.C.	Mess Hall, Vault, Prison, Chapel
Port Boniface	1990A.D.	Oracle, Food, Wizards magic, Clerics magic
New San Antonio	1990 A.D.	Weapons, Armor, Stable, Airport, Hotel, Pub Grove, Prison, Pool, Guardhouse
Lord British's Castle	1990 A.D.	Mess Hall, Vault, Prison, Chapel

Name	Location	Shoppes
Pirates Harbor	2112 A.D.	Airport, Space-port, Harbor, Prison, Island, Wizards magic, Clerics magic, Guardhouse
Shadow Guard	Legends	Museum, Thieves Guild, Morgue, Prison, Swamp Devil worship, Apothecary, Torture Chamber
Towne Mary	Mars	Weapons, Armor, Stables, Pub
Village	Jupiter	Oracle, Food, Wizards magic, Clerics magic
New Jester	Uranus	Oracle, Food, Wizards magic, Clerics magic
Computer Camp	Neptune	Oracle, Food, Wizards magic, Clerics magic, Campfire, Various cabins
Tommersville	Pluto	Oracle, Food, Wizards magic, Clerics magic
Town Makler	Pluto	Weapons, Armor, Stables, Pub
Towne Basko	Planet X	Weapons, Armor, Stables, Pub
Ozy's Place	Planet X	Prison, Chapel, Maze, Father Antos

Table 2-2. Artifacts, Items, and Assorted Objects

Item	Effect
Torches	Acquired in combat. Provides light in dungeon/tower.
Keys	Acquired from Guards. Necessary to open locked doors.
Tools	Acquired from combat. Releases you from dungeon/tower traps.
Ring	Allows you to walk unharmed thru fire and force
Wand	Allows magic spells in dungeons if you're a cleric or wizard.
Staff	Allows magic spells in dungeons if you're a cleric or wizard.
Boots	Protect your feet from paralyzing effect of demons.
Cloak	Protect your arms from paralyzing effect of devils.
Helm	Required for View command to display maps
Gems	No apparent use or value.
Ankh	Identifies you as an astronaut; allows you to board spaceships.
Red Gems	No apparent use or value.
Skull Key	Unlocks airplane and allows entry to aviators.
Green Gems	No apparent use or value.
Brass Button	Identifies you as an aviator and allows you to board planes.
Blue Tassle	Identifies you as a sailor and allows you to board a ship.
Strange Coin	Required for the Negate command to stop time. 1 use each.
Green Idol	Protects you from sleep spell cast by Balrons.
Tri-Lithium	Required for Hyperspace jaunt. 1 use each.

Table 2-3. The Planets

Destination	Xeno	Yako	Zabo	Towns	Terrain
Sun	4	4	4	No	Fusing Helium
Mercury	5	4	5	No	Water, Swamp

Destination	Xeno	Yako	Zabo	Towns	Terrain
Venus	3	3	4	No	Water, Swamp, Grass
Earth	6	6	6	Yes	All varieties
Mars	6	2	3	Yes	Mountains
Jupiter	1	3	4	Yes	Water, Grass
Saturn	2	8	5	No	Water, Grass
Uranus	9	4	6	Yes	Forest, Grass
Neptune	4	0	5	Yes	Grass
Pluto	0	1	4	Yes	Mountains
Planet X	9	9	9	Yes	Mountains, Grass

The Time Map

Because the continents' shapes begin as one giant land mass in Pangea and change drastically through the different times to eventually become countless large islands in Aftermath, Alfred's map was too complex for these pages. His tables, indicating their starting points and destinations, are roughly accurate, but your own maps should be employed in conjunction with this information in order to avoid becoming hopelessly lost and trapped in time.

Table 2-4. Geographic Starting Points and Destinations

Starting Locations	Ending Locations
9 Million B.C. (Pangea)	
The base of the small continent that will become Iceland	East. Europe in 1423 B.C.
The bottom center of the large continent that will become Australia	British Isles in 1990 A.D.
The top of the large continent that will become Africa	Alaska in 2112 A.D.
The top of the small continent that will become Greenland	Time of Legends

Starting Locations

1423 B.C. (B.C.)

Eastern Europe
Western Europe
South America
Canada

1990 A.D.(A.D.)

Greenland
British Isles
South America
Australia

2112 A.D. (Aftermath)

India
Center of Asia
Alaska
Southeast U.S.

Ending Locations

Iceland in 9 million B.C.
British Isles in 1990 A.D.
Alaska in 2112 A.D.
Time of legends

Iceland in 9 million B.C.
Western Europe in 1423 B.C.
Alaska in 2112 A.D.
Time of legends

Iceland in 9 million B.C.
Western Europe in 1423 B.C.
South America in 1990 A.D.
Time of Legends

Time of Legends
From left to right, the doors in the Time of Legends go first to
Pangea, then 1423 B.C., then 1990 A.D. and last but not least,
Aftermath.

Ultima III
Shedding Some Light on the Final Age of Darkness

Upon returning to Sheboygan from his mission to rid Lord British of Minax, Alfred felt as if he were in the Twilight Zone, for the first thing he noticed was the blinking light on his answering machine that signaled someone had left a message—and that someone proved to be Lord British again! This time he really needed help, for the latest menace to Sosaria was none other than Exodus, the hideous lovechild of Minax and Mondain.

Alfred knew this trip to Sosaria might be his last, that even his prowess with Quicksword and Phaser would face the ultimate test against such a deadly foe. Weary and battle-worn from his confrontation with Minax, he knew it was too soon to enter the fray without assistance, so Lord British offered to supply him with three of his subjects to serve as members of Alfred's party on this perilous expedition. Good thing he did, because Alfred was to face far more than monsters and magic this time. To reach

173

the Shrines of Wisdom, Dexterity, Strength, and Intelligence in Ambrosia, he'd have to survive swirling whirlpools; to locate the four Marks of Kings, he would need to thoroughly explore eight dungeons, each eight levels deep; to travel readily about the land, he'd have to unravel the riddle of the Moon Gates, synchronized as they were to the patterns of Sosaria's twin moons. But the Legend of the Silver Serpent lured him on, and so he once again stepped into the pulsating energy field that led to Sosaria and its countless mysteries.

Party Preparations

Allowed to choose the class and race of his fellow party members, Alfred studied the volunteers carefully. Wizards, with an arsenal of magic spells, came highly recommended, but Alfred observed that they would be almost useless in battle and don't become more powerful as they advance through the levels. And while he reasone that Druids make good Healers, he decided that they required too much gold to boost their Wisdom points (twice as many as Clerics). After lengthy
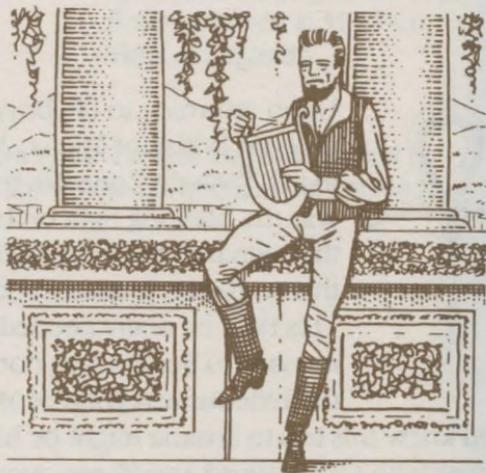
Bard

consideration, he chose a pair of Dwarf Fighters (Paladins) who had a Strength of 20, Dexterity of 20, Intellect of 5, and Wisdom of 5, and a Bobbit Cleric (who happened to be a Druid, the best Clerics in the land) with a Strength of 10, Dexterity of 10, Intellect of 5, and Wisdom of 25. As leader of the group, Alfred sallied

forth in the cloak of an Elf Thief with a Strength of 20, Dexterity of 20, Intellect of 5, and Wisdom of 5. In order to complete the enormous task before them, Lord British informed him, the group would have to increase their powers to certain minimum levels. (Those listed as 5 need not be raised, for doing so has no effect.)

	STR	DEX	INT	WIS
Fighters, Paladins (Dwarves)	99	75	5	5
Thieves (Elves)	75	99	5	5
Clerics, Druids (Bobbits)	75	50	5	99

Alfred Arms the Gang

Alfred's party materialized on the surface of Sosaria in a flash of blue lightning, and to the north he recognized the pair of buildings: Lord British's Castle to the upper left and a towne to the

THIEF

lower right. Without waiting about to be attacked by the wicked minions of Exodus, he raced for the safety of towne. The party found shoppes selling armor and weapons, and Alfred shrewdly schemed a way to outfit his fledgling band as effectively as possible with the precious little gold they possessed. First he told everyone to hand all their armor and daggers to him, then all their gold. Then he sold everything, which netted enough gold for two bows for his Fighters and a sling for himself. With three party members packing Missile Weapons, he knew they stood a better chance of picking off the enemy at a distance than by fighting hand to hand while still so weak.

He thought about buying a mace for the Cleric, but realized the Cleric was so lacking in Strength and Dexterity that he'd be forced to hide behind the Fighters until he got more of each attribute. So, he spent the gold on food before leaving town.

Though lacking armor, the group was able to vanquish several monsters by relying on their Missile Weapons. After each victory, they were rewarded with bits and pieces of armor from the dead bodies of their foes. As they fought a series of such battles, the party remained close to the castle, where they could quickly regain lost Hit Points and stay out of mortal danger. Each time one of his crew advanced a level, Alfred told him to transact with Lord British, who would boost the character's maximum Hit Point level until it finally topped out at 550 points. (A person required the Mark of Kings to push beyond this level.) Alfred managed to get Leather armor for himself and Chain Mail armor for both his Fighters this way, but wound up having to buy some for the Cleric. Aware that Thieves would steal any gear not readied or being worn by a party member, he avoided carrying excess equipment, always selling what the group couldn't use. Eventually he obtained a Bow for himself, and a Mace for the Cleric. To ensure the expedition didn't run out of food in the middle of the boondocks and starve to death before reaching a town, he had the Cleric carry more food than the others. This trick paid off well, for more than once in the heat of battle or while wandering lost in a forest or dungeon, he failed to notice that his food supply and that of the Fighters had run dangerously low. But the Cleric had food to spare, which he doled out to the others as they headed for a Grocer.

Going for the Gold

His former adventures in Sosaria had taught Alfred that there is more than one way to make a fast buck in a fantasy land, and that as much fun as monster-whomping can be, there are usually far less dangerous ways to cash in quick. He found his first

fortune in the Dungeon of Fire, situated south of Lord British's castle, and those who retrace his footsteps exactly can reap equally lucrative rewards. As point man for the party, he tiptoed into the dungeon and moved straight ahead until he felt strange winds stirring his hair through the slots in his shiny steel helm. Alfred ignited a torch, for the Winds had blown out the one he carried, and when this one too was extinguished, he stopped in his tracks on the spot where the Winds first hit him. He turned right and strode four steps forward, then turned left and stepped forward two spaces. Once more he turned left and walked through a secret door. His fellow questers rejoiced at their leader's providence, for in the room six treasure chests waited to be plundered. A Thief at heart as well as by profession, Alfred looted the chests of every coin, then backtracked to exit the dungeon. After magically "saving" the status of the quest, he led the party back into the room, where, lo and behold, the chests had been mystically refilled with gold! Repeating this process until the group had all it could carry, he was cautious to avoid giving anyone more than 9,999 gold: join more than this to someone, he'd been warned by Lord British, and any gold over that amount might be lost.

Tactical Combat with the Gang of Four

A seasoned warrior by now, Alfred still had much to learn in the art of leading a group of warriors into battle as opposed to going it alone. One of his most effective strategies was to keep his crew close together in the center of the combat arena, placing the Fighters in the first rank, the Cleric behind them and to the left, and the Thief (himself) to the right of the Cleric. (He put the stronger Fighter on the right, since that position takes the most punishment from the enemy and needs the Thief's backup.) Rather than picking up treasure himself, which could be deadly even to a Thief who has not acquired more Dexterity, he relied on the Cleric's magic to open the chests. The chests themselves

he was often able to put to use tactically: observing that the monsters were unable to walk across the chests, he left them unopened and used them to build forts and walls when his group was still weak and there were monsters left to fight. In the first weeks on the field of death, Alfred and his soldiers frequently missed their targets and inflicted little damage even when they did manage to score a hit. Their combat skills improved with practice, but even as the group's kill ratios soared, Alfred urged caution to his team, pausing after each victory to caution each member before tackling the next foe. Above all, they fled from Pincers, Bradles, and Snatches in the first months of the quest, beasts that were not only poisonous but also hard to kill. And until everyone had reached level 4 or 5, they ran from all winged creatures and beasts of the sea.

Clerical Combat

While his Cleric could cast what sounds like a devastating spell—Mass Kill—Alfred noticed he didn't score many points with it, because it works only on weak monsters and fails often at that. After the gang all acquired the four Marks later in the quest, Alfred came up with a plan to help the Cleric earn more Experience Points. This consisted of placing him on the front right side and having him kill Wizards and Snowmen. First Alfred or a Fighter would hit them once or twice with an arrow Bow; then the Cleric would smash his Mace into their skulls and finish them off. Since Clerics are allowed to throw one Missile Weapon, a Dagger, Alfred gave him 20–30 Daggers so the Cleric could toss them at the enemy while remaining safely in the rear of the party. After collecting enough gold to advance the Cleric's Strength and Dexterity, Alfred was gratified to see the Cleric turn into a good Fighter.

Free Hit Points and a Free Cure for Poison

Better than gold was one of his Cleric's discoveries: a fountain on

the second level of the Dungeon of Fire that magically restored everyone's Hit Points. This Dungeon lies directly south of the Castle, on the west side of a stone wall. Once inside, the group reached the magical fountain by finding the fountain on the first level, then taking five steps forward, turning left, advancing eight steps, turning right, moving ahead two steps, descending the ladder, turning right, stepping one square forward, turning right, and going through the secret door they faced at that point. Once through the door, they wheeled to the right, went forward one step, turned left, moved three steps forward, turned right, and went through another secret door. The first fountain on the left possessed the healing powers that proved so invaluable to their health throughout the quest, and they returned here often.

In the same dungeon, that of Fire, Alfred happened across another magical fountain, this one capable of curing Poison. Tired of spending their hard-earned gold at the horribly expensive Healer in Lord British's castle, he and his group traveled here whenever wounded by one of Sosaria's venomous creatures. It lies on the first level, and Alfred, ever the frugal traveler, soon mastered the knack of marching to it in the dark, not wasting a torch, by entering the dungeon and walking ahead two steps, then turning right, and moving three steps to the fountain. After tasting its miraculous waters, he and the group would then back up once, turn left twice, and go two paces. Upon turning left once, they would take two steps and climb out.

The Magical City of Dawn: Keys, Gems, and Other Items

Of the mystical city of Dawn, where enchanted weaponry and armor was forged by Sosaria's only craftsmen possessing such knowledge, Alfred and his entourage heard many rumors, tales, and even occasional clues. But it took blind luck for them to stumble across the city as they made their way across the plains exactly eight steps west from the Castle and 35 steps south. Even

this knowledge will not suffice, for Dawn can be entered only when the twin Sosarian moons are at 0. At that time, Dawn appears for just a second and can be entered only when visible. (Those who follow Alfred's trail there are advised not to stand on the spot and wait for Dawn's appearance, or they won't be able to see it when it does show up.) Inside, Alfred soon drummed up a Guild that sold Keys, Gems, Torches, and Powders, all of which proved very useful throughout the quest. On his first trip to Dawn, Alfred purchased a number of Keys and 15–20 Torches. Since he had gold to spare, he also picked up some Special and Magical Armor for the entire crew, and replaced his Fighters' standard Bows with +2 Bows, which dealt flying death far more effectively. Horses, he was informed by a local bookie, were just a novelty in Sosaria, so he didn't waste a single coin on these four-legged beasts.

To Death Gulch by Pirate Ship

Death Gulch, Alfred's party had been constantly reminded, was a veritable treasure house just waiting for the adventurer daring enough to raid the hard-to-reach town—and lucky enough to survive. Before seizing the necessary ship, Alfred checked his possessions to ensure he had a Key. When approaching the first ship that happened along, the party expressed extreme caution. As the pirates raked the group with cannons, firing in all eight directions with a range of up to four spaces, Alfred devised an impromptu plan. First he lured the ship into a corner along the coastline, then moved his band within one square of it, where the ship was unable to aim its cannon because of the close range. Then Alfred invoked the magical Pass Turn tactic (by depressing Ye Magical Space Bar) until the ship fired, upon which he immediately moved into contact with the vessel. By following these steps, you too may be able to capture the ship without getting hit. Of course, you might take some damage, so don't blame Alfred if you blow it! Once in command of the ship,

Alfred set sail for the little island off the eastern coast and docked at Death Gulch.

Death Gulch

By comparing his current location with the main map of Sosaria, Alfred realized Death Gulch was actually situated just below and east of the Castle area, something to keep in mind when sailing there yourself. He sailed straight up the river area to a spot just above the stone wall, looked east on the long narrow island, and spied the town of Death Gulch. Docking the ship on the little single square of water there, he left it there as a bridge. (As Alfred acquired more ships later in the quest, he wisely distributed them around the various shorelines of Sosaria so the Whirlpool couldn't destroy them all at once.) Broadsword at the ready, Magical Armor snugly cinched about his torso, he leaped from the ship to the dock below and motioned for the trio of questers to follow him into town on their first raid. Never one to waste time, Alfred made a beeline for the Armorer, whom he suspected had accumulated a large hoard of treasure chests. He'd heard tell of an even greater storehouse of gold in Death Gulch, but feared his party wasn't strong enough to take that one yet. But for the Armorer's cache he had a plan that would spare them having to fight a single Guard, a plan based on a fundamental human trait: greed. All he did was Offer, then Bribe each Guard with 100 gold coins, and they let his group pass without so much as a slap on the wrist. Three Guards he dealt with in this manner, aware that failure to do so would result in a platoon of their cohorts storming from nowhere to wipe them out. The locations pointed out in the following passage, two of these Guards were found standing in plain sight, while the other was hidden in a passageway. As he correctly suspected, more Guards lurked behind all the closed doors, so Alfred admonished his party against opening a single one.

A Winged Creature, the likes of which Alfred had never seen in any travel brochure, stood at the front of the entrance to Death Gulch, and his party was smart enough to ignore it and walk due south until they came upon a small opening that went east. This they followed to a branch going north. Taking two steps up, they strode due east till arriving in a wider north-south passage. (*For another route they might have pursued from this point, see below.) Then the Gang of Four went to the east wall and headed south six paces to another smaller entrance, this one going east. Upon entering it and moving three paces, they turned south along another branch until they encountered a Guard. Another 100 gold coins was all Alfred needed to keep this Guard happy, so he bribed him and returned to the wide north-south passage. Going north on the wide passage until they emerge in a large open area where two Guards to the west protected the inside of the entrance, Alfred bribed them and, since he had not opened any doors, he practically *owned* the west half of town.

(* From the spot where they first entered the north-south passage, Alfred's expedition might also have gone north to the clearing, then east to bribe the guard and unlock the door there. At that stage, they would have next followed south along the wall that looks like a mountain range until detecting an opening on the left; a maze leads directly to the treasure trove behind the Armorer's shop. Without the Mark of Force, they would have had to be content with the chests on the initial side of this area. Had they already unearthed this Mark, however, the emboldened band could have marched straight through and cleaned house, grabbing every gold coin in sight. They would have been ill-advised to steal all the chests in the second room, though. Only by leaving the topmost row untouched is it possible to avoid recrimination by the Shopkeeper and City Guards.)

By exploring farther to the north, Alfred located Death
Gulch's Weapons store, where he promptly stole all the gold
and sold every piece of gear for which he had no use. Directing
the team to the south, he led them past the towne's main en-
trance and farther south as far as possible until they arrived at
the Armorer shoppe. Here they repeated their actions at the
Weapons store, taking a few extra minutes to slay all the
Thieves and Cutpurses before grabbing the treasure. As they
had done during previous raids, they continued to leave all
closed doors tightly shut to make sure the Guards on the other
side didn't attack them. Upon exiting the Armorer, the moved
along the stone wall on the west side to the little passage that
took them west out of town. By now they had amassed some-
where between 600–1,000 gold pieces, and upon returning to
Death Gulch later that week, found this profitable venture could
be repeated infinitely.

Ambrosia: The Land Beyond the Whirlpool

During their lengthy sojourns across the land, Alfred's hardy
band heard whispered many tales of an exclusive resort called
Ambrosia. Alfred had longed to refresh himself in a nice hot spa
or jacuzzi, and imagined he'd find exactly that, perhaps even a
poolside bar, in this legendary getaway. Instead, he found
something even more useful: the four Shrines that increased each
party member's rating in Strength, Intelligence, Dexterity, and
Wisdom. For this privilege each character had to fork over 100
gold coins per point: 1,000 gold would buy 10 Strength, for ex-
ample. Alfred was careful and avoided using the Join command
to pool gold, so he found that once in Ambrosia he could give a
lot of gold to one of his Fighters and continue collecting it. He
carried at least 9,000 gold for the Fighters to boost Strength and
for himself to increase the Dexterity so needed by a Thief, and
1,500–2,000 to enhance his Cleric's Wisdom. After increasing his
Dexterity, Alfred found he could open treasure chests and suffer

fewer gas or bomb explosions, which allowed his Cleric to save Magic Points for other spells.

Alfred's group enjoyed their visit to Ambrosia so much, they made several trips back. On the first time there, Alfred was glad he had the foresight to have brought along at least three or four keys and lots of gold. He also found a few Gems useful, since AAA didn't have maps of the area, which forced Alfred to draw his own charts on the fly.

While Alfred had traveled by boat, plane, train, and even mule and camel in his varied career as a travel agent, his trip to Ambrosia was a first—for the only way to reach this secluded spot was by sailing his ship into the Whirlpool. Because it is constantly moving and sometimes hard to find, Alfred used a Gem and looked for a white spot to locate the Whirlpool. Occasionally the spot turned out to be a sea monster, though, which was always a bother. Knowledgeable in the ways of the sea and in the fact that the the wind changes direction frequently, Alfred understood that such a voyage could take considerably longer than expected, so he packed the ship with lots of food to be sure they didn't run out and starve to death at sea.

Instead of a cocktail reception sponsored by the local Club Med, Alfred's tour group was greeted by a couple of sand crabs as the team washed up on the beach in in Ambrosia. (The ship was nowhere in sight, but Alfred soon found another one near the Shrine of Dexterity, though his party had to capture it.)

To the Shrine of Dexterity

Immediately they headed north until Alfred stepped on the first square of a forest area. From this spot he guided the team into a small passage, where, several steps in, they went south one pace and continued east to a stone wall. At the wall they moved south to another stone wall and followed it west until water became visible just to the south. Without wasting a moment, Alfred took one step north and realized he was next to the pirate ship (he

couldn't quite see it from this spot, however). He got the ship to fire at him once, then immediately moved in and finished it off. Alfred and his crew boarded the ships and sailed due west. Upon landing, they marched north to a stone wall and followed it north a few steps. By moving east eight or ten steps, then north a few more, they at last came upon the Shrine of Dexterity. He searched it, found a Card, and then ordered each party member to do the same; this he repeated at the other Shrines, for each concealed a unique and vital Card. Next, Alfred told his Fighter, the one who carried all the gold, to enter the Shrine and buy 30 Dexterity points, and then hit 0. When the Fighter's gold fell below 10,000 gold, he Joined it to the other Fighter and did the same. Then Alfred repeated this process for himself, to boost his skills as a Thief. With some gold left over for the Cleric, he guided everyone back to the ship so they could travel to the next Shrines.

The Shrines of Wisdom and Intelligence

From the Shrine of Dexterity, Alfred and his merry band sailed south and west and to a mysterious locked gate on the water passage. With one of the Keys he'd brought along, he unlocked it and steered the vessel west, then north on the open area to a point above the Whirlpool. Gingerly he guided his ship past the Whirlpool, which remained motionless, for he correctly guessed that entering it would carry him back to Sosaria, and he still had things to accomplish on this trip. Moving into the large open area to the north, he tacked to the east and followed the general edge of the shoreline all the way up to the northeast corner and the locked gate to the east. After opening it, he entered and went north, where the Cleric pointed out another gate to the west— the Shrine of Intelligence, where the group would later return to pick up one of the Cards. (A party containing a Wizard can use this Card; otherwise, pass it by for now.)

On the north side of the clearing and a bit to the east, Alfred's

keen eye detected yet another of those tiny passages intercon-
necting so many of Ambrosia's secrets. Following it till they
reached a small gate, his party watched Alfred unlock it and trod
right behind him as he moved generally south and east to an area
larger than one square wide. Here they went south a dozen or so
steps, then west a few. Somewhere just below, a stone wall jutted
to the north. West of this, a small passage moved south. Several
steps south along that path took them to the Shrine of Wisdom
on a small lake shore. After passing all the party's gold to the
Cleric, Alfred instructed this man of the cloth to buy all the
Wisdom he could afford. (Looking back on this moment, he now
advises a Cleric to have at least 40 points of Wisdom when
leaving here the first time.) His party's initial outing in Ambrosia
complete, since they had nary a gold coin among them, he
returned to the ship and sailed it into Whirlpool; then he an-
chored it at Death Gulch.

Getting the Marks: Into the Dungeons

Aware that he needed the Mark of Kings to obtain more than 550
Hit Points, and the Mark of Force so his band of gold-grabbers
could enter the main treasure room of the Death Gulch Armorer,
Alfred made these his next objectives. (With more treasure, he
realized, he'd be able to advance everyone's ratings even faster
on the next trip to Ambrosia.) The Marks of Fire and Snake he
decided to hold off on for a while, since they would serve no
immediate purpose. Because the Marks are concealed in dun-
geons, Alfred, as the party's Thief, assumed position 1 so he
could spot traps that only a Thief had hopes of defeating.

The Mark of Kings

When leaving Lord British's castle, Alfred spotted a dungeon just
east and slightly north of the castle. He'd suspected it might hold
something of value, for a pirate ship sometimes guarded the
entrance, marked by a small body of water. Inside, he stayed on

the catacomb's first level and strolled over to the southeast corner, then headed five squares north along the east wall and wound up next to a door. Pain seared the flesh of his hand when he reached into the fire and retrieved the Mark of Kings, which cost him 50 Hit Points. This also made it tough to convince the other party members to get a similar Mark, though they changed their minds upon learning that its possession would enable them to obtain a maximum of 2,500 Hit Points when they finally reached level 25. (Alfred calls this Mark an essential element to victory, so those following his path should be sure every party member obtains the Mark of Kings.)

The Marks of Force and Fire

For the Mark of Force, Alfred routed the team back to the Dungeon of Fire, found due south of the castle, along the west side of a stone wall. Cognizant of the fact that the Mark of Fire was needed in order to safely traverse molten lava, he cautiously skirted the lava flow near the entrance. Boldly they strode into the gloom, searching every nook and cranny until hitting bottom on the eighth level. There, in the southwest quadrant, each adventurer obtained the Mark of Force. On the same level where they found the Mark of Force, Alfred checked out the southwest quadrant and came up with the Mark of Fire. (To spare yourself the time-consuming search conducted by Alfred, you can get to level 8 by having a Cleric cast a "spell down" to level 5, then going to the stairwell in this floor's southwest corner. The stairwell goes all the way to the eighth level by moving north from the stairs at level 8 through a passage to a doorway on the right. Use a Cleric spell to exit to the surface. You can also grab lots of gold in the corners of the fifth level, but watch for traps and Gremlins who'll eat your food.)

The Mark of the Snake

The next time Alfred sailed to Death Gulch, heavy winds blew

the ship off-course. They came ashore on an island just south of the island where Death Gulch is located, and fortuitously decided to investigate the dungeon there, in which the Mark of the Snake turned up in the southwest quadrant of the eighth level.

More Treasure at Death Gulch

Alfred didn't return for the main hoard of gold in Death Gulch until his Cleric had reached level 3 and he, as a Thief, had 50 Dexterity. He whispered to his crew to shun killing anyone or stealing a thing before he gave the signal, then directed the team back to the inside entrance where they saw and bribed the two Guards on their first visit to rob the Armorer. Heading east to the locked gate, he stealthily unlocked it and took the wide passage south. The small passage for which he'd kept his eyes open soon loomed on the west wall, and the party entered this corridor and took five paces before turning north. Turning right at the wall, they advanced four steps, went south one step, and west once into a branch that was blocked by a Guard. He proved easy enough to bribe, which opened the way to the main treasure room. Alfred summoned every ounce of his Thiefly talents to open all the chests, saving his Cleric's magic for healing and curing. Still, he kept an eye on the Cleric's Hit Points, too, aware that he was still vulnerable. After looting the room, Alfred and his crew staggered with a heavy load of gold, pausing briefly to to sell a few unneeded items at the shoppes but not stealing anything this time. As he recollects, a party needs to be able to be strong enough to kill three platoons of Guards in order to get both the front and rear treasure troves.

Strong Enough to Kill Guards?

Alfred, feeling cocky, returned to the rear trove in the large storehouse to see if they'd missed anything. At the gate he'd opened, he killed a Thief who appeared in the doorway, which attracted the attention of two Guards from the west side of the

188

doorway at the main entrance. (Had the Thief been elsewhere at the time, Alfred might have gotten their attention by standing on the square east of the door and having one of his Fighters steal until he got a "Watch out!" message.) With a single swordthrust, Alfred killed the first Guard in the doorway. (Fortunately he didn't leave the doorway area, or four more Guards would have arrived from behind the east wall!) After killing the other Guard, the party picked up all the treasure that was not lying in the doorway, and then robbed the Armorer and Weapon-seller. (Oddly, he thought, they continued to buy things from him even after he robbed them!) Other adventurers who follow these steps will appreciate the fact that no more Guards will attack. Alfred and the boys left via the normal route (by reversing their path stated under "Death Gulch," paragraph 2) but wasted no time lingering at the outer entrance, where another Guard was just one step away. Later they returned for even more booty, which, because it lay beyond the Force Field, required each party member to possess the Mark of Force. They laughed aloud while ransacking the lower two rows of treasure chests, but didn't touch the row between them and the Merchant. Otherwise, Alfred foresaw,the Merchant and a brigade of Guards would have crushed them to death. After leaving the area, Alfred blocked the gate (as described above).

The Shrine of Strength

With more gold than they could spend in the ritziest pub in all of Sosaria, Alfred's party set sail once more for Ambrosia to get more Dexterity for himself (as a Thief) and Wisdom for his Cleric. But he and his Fighters also needed more Strength for the upcoming showdown with Exodus, so a jaunt to the hard-to-find Shrine of Strength was also in order. Peering into a Gem to get his bearings, he looked in the upper northwest quadrant of the continent. Then he slowly made his way there after parking the ship above the Whirlpool and proceeded along the general

western edge of the clear area to slightly above the area of stone that juts into the center. He led the party to the west side and into a smaller cleared area (the one farthest north on the west side), then into the northernmost corner and entered the passage to the west. Going north along the west wall, far up in the corner, he found a small passage going into the west. Alfred was relieved he'd insisted everyone's Magic and Hit Points be at the max, for they encountered a magic-using Mage met when they followed this passage. After killing him, they went south, following the west wall, until they were set upon by a pair of Horse monsters. The Fighters polished them off briskly, and the team went due south at least a dozen spaces, then east to the Shrine of Strength. Here Alfred and the Fighters boosted their Strength to around 50 each but gave none to the Cleric who hungered for more Wisdom.

The Shrine of Intelligence

As they entered, Alfred noticed three cages with locked doors, which contained either a few monsters or a bit of treasure. The party hugged the east wall while moving south until they ran into a pirate ship. Alfred led the charge, and they killed the crew and sailed west along the upper north wall. Finding a likely spot to land, the party disembarked and found the gate that led to the Shrine of Intelligence. Fighters and Thieves, he figured, required no more than their initial five Intelligence or Wisdom points, or Intelligence for Clerics—so there was no need to pay for more of these.

Exotics: Armor and Weapons

Among the hottest topics on every Sosarian's tongue was the legend of the Exotics, weapons and armor required to enter Exodus' stronghold. As Alfred learned, they are not missile weapons, and he didn't have to defeat monsters to get them. The Exotic Weapons he obtained by sailing up and out of the castle

bay, turning west and tracing the coastline until he met a small group of islands. The nearest one, two squares wide, held the Weapons, which Alfred obtained by having each member Dig there. The Exotic Armor he located by sailing out into the water west of Death Gulch island and south along the opposite shore. Moving east below this and following the north coast to another two-square island, Alfred dug again and got Exotic Armor for each character. He quickly cashed in by selling all the Exotics and returning to the same hiding places for more.

Mangling Exodus: The Final Encounter

Checking out the group to ensure they were ready to have a go at Exodus, he confirmed that each member had 2,500 Hit Points, each of the Cards from all four Shrines, all four Marks from the Dungeons, was equipped with a set of Exotic Weapons and Armor, and had at least 100 food units each. North from the bay near Lord British's castle they sailed, then west past a small group of islands. Looking north until they saw a stone passage with a large white snake over the entrance to the north—the Silver Serpent!—they sailed up to it and yelled *Evocare*. Transported inside, they headed for the castle entrance, where Alfred one final time invoked the "save game" command that could revive them if Exodus won the first battle.

Inside the Castle

Stealthily they penetrated the shadowy castle corridors, advancing west until attacked by a ferocious dragon that soon lay bleeding to death on the cold stone floor. Next they followed a passage north past another passage and turned east at the next corridor. Alfred paused now and then to have his Cleric heal wounded members, staying alert for the Fireballs that popped up from the floor intermittently. Proceeding east, Alfred spied a wide entrance to the north and, to the south, a Cleric in an enclosure. Their destination, he intuited, lay north, to the four-section

machine, in the center of the north wall. During battles with the Floor's invisible monsters, he bunched his group together against the lower wall and continued attacking north. By staying against the wall shoulder to shoulder in a single row, he spared his crew many a blow. When the last of these fiends was dispatched, Alfred stepped up to the left section of Exodus (the machine) and inserted the Love card. The Sol card he slipped into the second section of Exodus, while the Moon card fit nearly in the third slot, and the Death card—naturally—went last. Had Alfred inserted the Cards in any other order, of course, Exodus would have had him for brunch, and Sheboygan would have been out one top-notch travel agent.

Alfred's Most Valuable Discoveries in Sosaria

As on his previous expeditions, Alfred acquired a vast amount of information he realized would prove invaluable to others on such a quest as the one he'd just accomplished. Pen in hand, he scribbled them down the minute he returned home, and from his notes prepared the following tables.

The Spells

Table 3-1. Clerical spells from the Ancient Liturgy of Truth

Letter	Cost	Name	Result (if effective)
A	0	Pontori	Multiple kill for undead (skeletons)
B	5	Appar Unem	Defuse chest trap and open
C	10	Sanctu	Heal (restore some hit points)
D	15	Luminae	Make light (substitute for torches)
E	20	Rec Su	Ascend to next higher dungeon level
F	25	Rec Du	Descend to next lower dungeon level
G	30	Lib Rec	Move randomly on same dungeon level
H	35	Alcor	Cure a poisoned player

Letter	Cost	Name	Result (if effective)
I	40	Sequitu	Escape dungeon and return to surface
J	45	Sominae	Make light of longer duration
K	50	Sanctu Mani	Extra heal (restore many hit points)
L	55	Vieda	Show map (substitute for <P>eer at gem)
M	60	Excuun	Directional kill spell
N	65	Surmandum	Restore life to dead (not hit points)
O	70	Zxkuqyb	Powerful all purpose multiple kill
P	75	Anju Sermani	Restore player from ash (lose 5 wisdom)

Table 3-2. Wizard Spells from the Book of Amber Runes

Letter	Cost	Name	Result (if effective)
A	0	Repond	Multiple kill for Orcs, Trolls & Goblins
B	5	Mittar	Low power directional kill
C	10	Lorum	Low power light spell
D	15	Dor Acron	Descend one dungeon level
E	20	Sur Acron	Ascend one dungeon level
F	25	Fulgar	Medium power directional kill
G	30	Dag Acron	Move randomly on surface (not dungeon)
H	35	Mentar	High power directional kill
I	40	Dag Lorum	High power light spell
J	45	Fal Divi	Cast cleric spell (limited use)
K	50	Noxum	Low power all purpose multiple kill
L	55	Decorp	Extra high power directional kill
M	60	Altair	Stop time (substitute for <N>egate)

Letter	Cost	Name	Result (if effective)
N	65	Dag Mentar	Medium power all purpose multiple kill
O	70	Necorp	High power all purpose multiple kill
P	75	No name	Extra high power all purpose multi kill

Table 3-3. Potential Party Members

Profession	Attribute	Armor	Weapon	Spell
Fighter	None	All	All	None
Cleric	Wisdom	Chain	Mace	Prayer
Wizard	Intelligence	Cloth	Dagger	Sorcery
Thief	Steal & Disarm	Leather	Sword	None
Paladin	Half Wisdom	Plate	All	Prayer
Barbarian	Some S&D	Leather	All	None

Profession	Attribute	Armor	Weapon	Spell
Lark	Half Int.	Cloth	All	Sorcery
Illusionist	Half Wis/S.S&D	Leather	Mace	Prayer
Druid	Greater	Cloth	Mace	Both
Alchemist	Half Int/S.S&D	Cloth	Dagger	Sorcery
Ranger	Lesser/S. S&D	+2 Plate	+2 Sword	Both

Player	Strength	Dexterity	Intelligence	Wisdom
Human	75	75	75	75
Elf	75	99	75	50
Dwarf	99	75	50	75
Bobbit	75	50	75	99
Fuzzy	25	99	99	75

Table 3-4. The Moon Gates

No.	Vicinity	Act. phase	1st	2nd	3rd
1	Moon (T)	0, 0	1	2	3
2	Snake (D)	1, 3	4	5	6
3	Top 3 sq.	2, 6	7	8	1
4	Dawn (T)	3, 1	2	3	4

No.	Vicinity	Act. phase	1st	2nd	3rd
5	Bottom 3 sq.	4, 4	5	6	7
6	Death (C)	5, 7	8	1	2
7	Devil Guard (T)	6, 2	3	4	5
8	Time (D)	7, 5	6	7	8

Table 3-5. Castles, Townes, and Villages

Towne	Weapons	Armo	Stables	Healers	Food	Oracle	Guild
Castle Britannia	No	No	No	Yes	No	Yes	No
Britain	Yes	Yes	No	No	Yes	No	No
Fawn	No	No	No	Yes	Yes	No	Yes
Yew	No	No	No	Yes	Yes	No	No
Moon	No	No	No	Yes	Yes	No	No
Montor East	Yes	Yes	No	No	No	No	No
Montor West	Yes	Yes	No	No	Yes	No	No
Grey	Yes	Yes	No	No	Yes	No	Yes
Death Gulch	Yes	Yes	No	No	Yes	No	No
Devil Guard	No	No	Yes	Yes	Yes	No	Yes
Dawn	Magic	Magic	Yes	Yes	Yes	Yes	Yes
Castle Death	No	No	No	No	No	No	No

Table 3-6. The Dungeons and the Marks

Dungeon	Mark	Level
Dungeon of Fire	Fire,Force	8,8
Mines of Morinia	Kings, Kings, Fire	3,8,8
Perinian Depths	Kings, Kings, Kings, Fire	1,1,8,8
Dardins Pit	Kings, Kings	2,8
Dungeon of Doom	Force	8
Dungeon of the Snake	Kings, Snake	8,8
Dungeon of Time	Kings, Kings, Kings	2,8,8

Table 3-7. The Shrines and the Cards

Shrine	Card	Location in Ambrosia
Dexterity	Sol	Southeast corner (bear south west through maze)
Strength	Love	Southwest corner (northwest, then south)
Wisdom	Death	Northeast corner (far northeast, then south)
Intelligence	Moons	Northwest corner (through door, beyond lake)

Ultima III: Hell
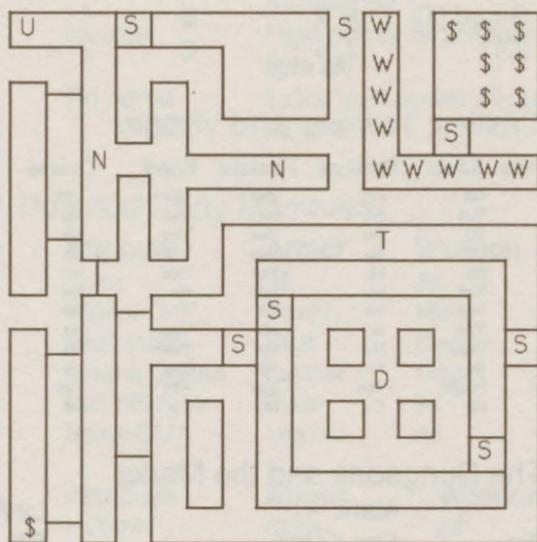
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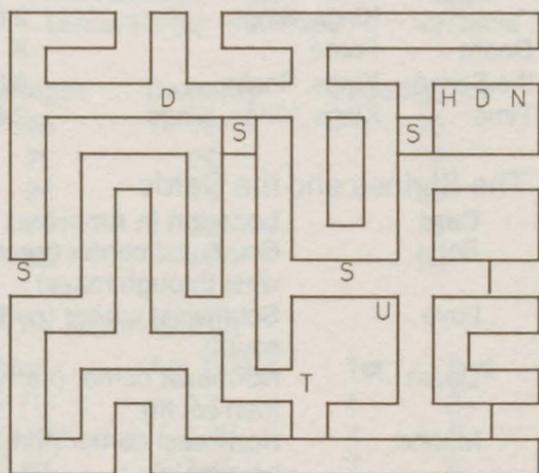
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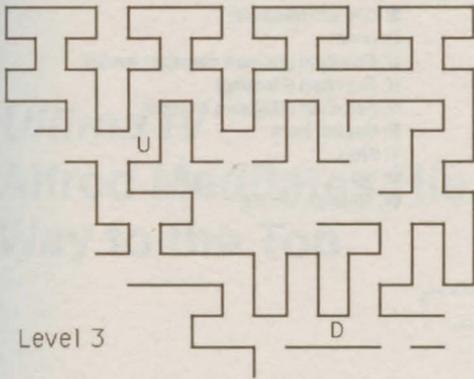
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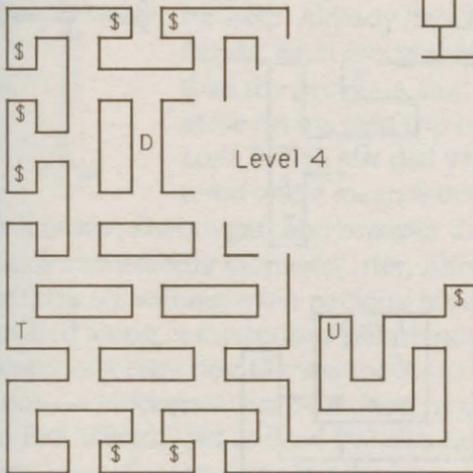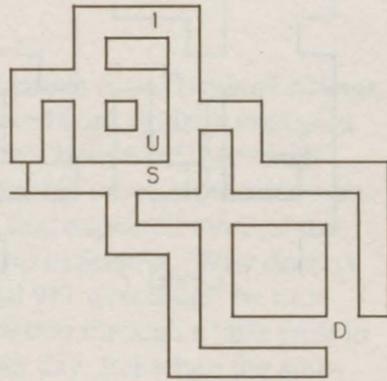
Level 4

Level 5

l: Gremlin City

The Solutions
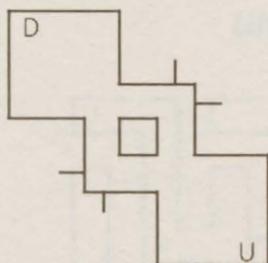
Level 6

Map Key

$: Chests (treasure)
D: down
D: Fountain (causes damage; avoid)
H: Fountain (Healing)
N: Fountain (Negates Poison)
S: Search here
T: Trap
U: Up
W: Strange Winds
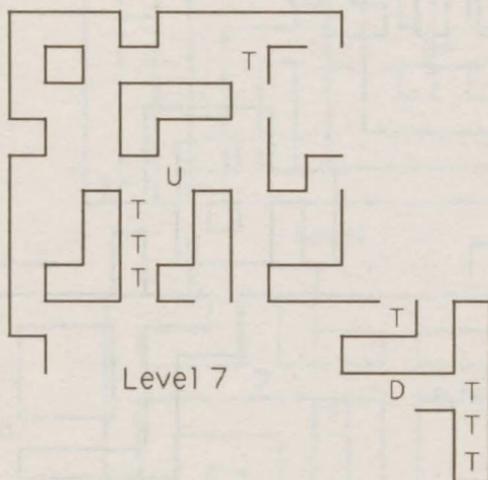
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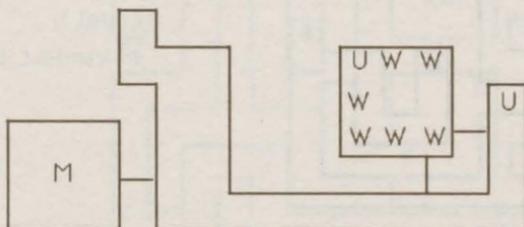
Level 8

198

Ultima IV
Alfred Meditates His
Way to the Top

After his first three jaunts to the lands of *Ultima,*
Alfred almost dreaded Lord British's next plea
for help. Already he'd beheaded three arch-
fiends, each monster ten times more venomous
than the previous, and expected more of the
same on his next trip to Sosaria. "Why doesn't
Lord British just dial 911 next time?" he mut-
tered while meandering through a little park in
downtown Sheboygan one summer day. But when the sum-
mons arrived only moments later, Alfred was so enchanted that
he took off without even packing his toothbrush. For as he
strolled along, a mysterious phenomenon had occurred: in the
center of a fairy ring of toadstools materialized a glowing blue
door—a Moongate that beckoned him, not to Sosaria to pursue
an Evil Wizard, but to Lord British's new land of Britannia for a
new kind of quest. Viewing the trip as a chance to check out
another new potential travel destination for his clients, not to
mention a brief escape from Sheboygan's stultifying summer,

The Solutions

Alfred stepped into the Moongate and moments later found himself ambling down the path to the circus and climbing the steps into the gypsy's wagon. After her card-reading, he ventured to Lord British's castle and was informed that his goal this time was to become an Avatar by mastering a code of eight Virtues, which would enable him to unearth the Codex of Ultimate Wisdom from its subterranean hiding place. Intrigued with such a novel mission, Alfred wasted not a moment as he cast about for clues by conversing with Britannia's citizens, who proved far more talkative and helpful than their Sosarian counterparts. Alfred soon ascertained his task would involve more obtaining eight runes and mantras, finding the shrines and elevating all eight Virtues to 99, getting his hands on the Bell, Book, Candle, Skull of Mondain, sextant, all eight stones, a ship, and the three-part key. With such a formidable quest before him, he was gratified to learn he could take seven party members on the trip.

Outsmarting the Gypsy

Though the Gypsy was determined to base Alfred's profession on the cards he chose during the reading, the devious Wisconsinite came up with a way to outmaneuver the fortune teller. (The clue to figuring this out was the series of black beads that appeared during the card-reading, which the program used to keep track of Alfred's choices.) The actual process, Alfred reckoned, is based on the way the eight virtues—Honesty, Compassion, Valor, Justice, Sacrifice, Honor, Spirituality, and Humility. Each virtue corresponds to one of the eight character classes—Mage, Bard, Fighter, Druid, Tinker, Paladin, Ranger, and Shepherd—in that order (the Mage is matched with Honesty, the Bard with Compassion, and so on). Each time the Gypsy asked him pick one virtue over another, Alfred's "higher" choice appeared as choice A on the left. By choosing all eight A answers, Alfred was able to start the quest wearing

the robes of a Mage. Had he selected seven A answers and one
B answer, he would have become a Bard (another effective
character class, for Bards are initially armed with a Sling), while
a choice of six A and two B answers would have turned him
into a Fighter, and so on down the line. The Shepherd, Alfred
figured, was the worst possible choice, as his starting point
makes the early stages of the quest exceedingly troublesome.

Looking for a Party

Apprised of the seven party members who would join his
quest, Alfred sought them out but didn't ask anyone else to
accompany him till he'd earned full Avatarhood—the more
people in the party, the larger the groups of attacking mon-
sters. Much later in the quest, when he'd become an Avatar and
was ready for the dungeons, he found it easy to round up
everyone but the Fighter and the Shepherd. The Fighter,
Geoffrey in Jhelom, was in plain sight but refused to join until
everyone in Alfred's group had reached a certain level. But
locating the Shepherd took months, and it was only by acci-
dent that he finally did so. When leaving Magincia, he ap-
proached the main entrance but turned south before going
through it, and there beside the wall found Katrina.

The Virtues

By acting logically in accordance the ideas behind each of the
Virtues, Alfred rapidly pushed their levels higher with each
passing day in Britannia. Always answering questions truthfully
increased his Honesty, for example, and lying led to the loss of
such points. He did get caught by a couple of trick questions,
such as the one regarding Humility: when someone asked if he
was the best at anything or especially proud of something,
Alfred replied yes, when the correct response is no—unless
they ask if you're the most humble. There were also trick
questions related to Honesty: the right answer to "Have you

never lied?" is no; after figuring this one out, Alfred marveled at its logic, no matter how convoluted. For Sacrifice points, he donated blood to Healers, and he passed out gold to beggars for Compassion. Alfred also realized that its best not to combat unless near death; otherwise, he'd lose his Valor. He never attacked nonevil creatures, especially when they were fleeing. He discovered that possession of the Bell, Book, Candle, and runes boosted his Honor, and that speaking with Hawkwind was crucial to Spiritual growth.

An "Undocumented Cheat" for Checking Virtues

As much as he enjoyed those little chats with Hawkwind in Lord British's castle, Alfred eventually grew weary of trekking all the way back there to learn of his progress in the various virtues. Imagine his delight when he chanced across a method for doing so anywhere in the land. He'd accidentally leaned on the magical Control Key and the letter *s* simultaneously, when a row of numbers filled the sky. The first two numbers, he realized, represented the current status of his Virtues in this order: Honesty, Compassion, Valor, Justice, Sacrifice, Honor, Spirituality, Humility. However, since he still had to interact with Hawkwind to boost Spirituality, Alfred continued dropping in on him frequently during the early stages of the quest. He combined these trips with visits to Lord British, who elevated party members to the next level when they had earned enough experience points (he also healed the whole group when Alfred asked him about health and answered no to Lord British's subsequent question).

Increasing Attributes

Instead of sailing to a faraway land like Ambrosia and paying to have his Dexterity, Strength, and Intelligence increased, as he done on his last outing, Alfred had to go underground and touch Magical Balls found in the dungeons, which he discov-

ered in the following locations: Deceit: levels 3, 5, 6; Despise: levels 4, 8; Destard: levels 3, 6; Wrong: levels 2, 6, 7; Covetous: levels 3, 6; Shame: 1, 4, 8; Hythloth: go straight to level 8, then look on levels 5, 3, and 1. There was still a price to pay, however, for it cost each party member a varying number of Hit Points to touch a Ball, so Alfred was sure to take along a good supply of Heal spells. He also carried plenty of Resurrect spells when visiting the Magical Balls that inflicted even greater damage, but which boosted Attributes faster.

The Missing Magic Spells

No matter how thoroughly Alfred pored over the pages of his Magic Book, he could not find the three spells and their reagents listed there. A wandering Wizard in Magincia eventually enlightened him, and Alfred could soon cast Gate Travel (by combining reagents *a*, *h* and *f*), Undead (reagents *a* and *c*), and Resurrect (*a*, *b*, *c*, *d*, *e* and *h*).

Sleeping His Way to the Top

In the Poorhouse, Alfred found he and his party could earn points during the night by putting the Magic Carpet in the hall, which kept the Beggars from sleeping. By giving one piece of gold to every Beggar he encountered in Lord British's castle, he managed to earn Compassion points, and by walking downstairs right after doing so, then going back up, he was able to repeat the process as often as desired.

Making Lots of Gold

After Alfred became a full Avatar, he obtained the Mystic Arms (in the center of the mat in Serpent's Hold) and the Mystic Armour (from the center of the grove in Empath Abbey) and sold them. Then he returned to get more Arms and Armour to sell (but couldn't do so if still carrying any of either), a shortcut that made his party wealthy in no time.

Alfred also reported a far more dangerous but even more efficient way to rack up a fortune in gold as well as loads of weapons, armor, and magical items. It was discovered by accident on the Apple version, but probably works on the Commodore 64 and maybe others. First, make back-up copies of your saved games and characters, for this trick could potentially backfire and wipe out your disk. Then, while your party is walking around outdoors and the disk drive is not spinning, insert any dungeon disk and move around. The program, looking for the next area of the outdoors maps, finds part of a dungeon on the disk and displays that instead, so you'll find yourself in an indoors area that's heavily studded with treasure chests. This happens because the program, in order to save time, doesn't check to see which disk it's reading, so it goes in and reads any data it can find. This means you could put any disk—from *Flight Simulator* to your favorite word processor—into the drive and the *Ultima* program would read it, though there's no telling what might happen. Grab all the loot you want, then wait until the disk stops whirling before you pop the outdoors disk back in the drive. This also works with *Ultima V* but hasn't been tested with *VI*.

Using the Moon Gates

After his experience with the Time Doors, Alfred had little trouble unraveling the secrets of Britannia's Moongates, and prepared a simple chart of each one's destinations (Table D-1). First he would note which stage of the three-part cycle the moon was currently in; then he'd just consult the last three numbers in the following tables.

Table 4-1. Moongate Destinations

Gate	Moon	First	Second	Third
1: Moonglow	New	1	2	3
2: Britain	Crescent Waxing	4	5	6
3: Jhelom	1st Quarter	7	8	1
4: Yew	Gibbous Waxing	2	3	4
5: Minoc	Full	shrine	6	7
6: Trinsic	Gibbous Waning	8	1	2
7: Skara Brae	Last Quarter	3	4	5
8: Magincia	Crescent Waning	6	7	8

A Ten-Second Guide to the Virtues

At last an Avatar, Alfred thoughtfully decided to give a hand to future adventurers who might trod the same path. He prepared Table D-2, disclosing the location of the Runes and Shrines as well as the Mantras that must be chanted at the Shrines in order to successfully meditate for three minutes.

Table 4-2. Location of the Runes, Shrines, and Mantras

Virtue	Rune	Shrine	Mantra
Compassion	Britain	FM, IA	mu
Humility	Paws	NI, OH	lum
Honesty	Moonglow	EC, OJ	ahm
Valor	Jhelom*	OF, CE	ra
Sacrifice	Minoc	CN, MN	bah
Spirituality	Britannia	BD, KG	om
Justice	Yew	AL, EJ	beh
Honor	Trinsic	MP, FB	summ

To find the rune of Valor, Alfred first met Lord Robert, then entered the secret doors south and west and searched the ramparts.

Lost and Found

Upon attaining full Avatarhood, Alfred decided he was nearly ready for the dungeons. He gathered the necessary information from Table D-3 below, stuffed his magic bag with reagents, and visited each town to find the seven Britannians who would join his quest. After outfitting them with three Magic Bows, a Crossbow, three Magic Wands, a Sling, and the best armor each character was allowed, he set out for the subterranean.

Table 4-3. Locations of Key Objects

Bell	NA, LA
Book	AG, AG (in library)
Candle	AB, BG (search behind fire in Temple)
Skull of Mondain	PF, MF
Ship's Wheel	NH, GA
Silver Horn	KN, CN
Mystic Armor	AE, BG (partial Avatarhood required)
Mystic Weapons	AP, AI (partial Avatarhood required)
Nightshade	JF, CO (during New Moon)
Mandrake	DG, LG (during New Moon)
Cheap food	Skara Brae
Thieves Guilds	Vesper and Buccaneer Den
Ships	Jhelom and Skara Brae (the ships will appear later in game)

A Dungeoneer's Diary

In each dungeon Alfred uncovered at least one of the three kinds of Altars (Truth, Love, Courage), but the most efficient dungeon he found was Hythloth, for it holds all three. Intelligence, Strength, and Dexterity may also be boosted in this dungeon, for it's the only one that holds all three kinds of Magical Balls. Dungeons, he discovered, are connected via passages in the Altar rooms, so Alfred often got lost when he didn't exit the same door through which he entered the room.

Dungeon Deceit

The Magical Balls on levels 3, 5, and 6 will boost Intelligence by five points and strip each party member of 200 Hit Points. Here Alfred scooped up the Blue Stone (level 7), found an Altar of Truth (level 8) here, and a Healing Fountain on level 5.

Dungeon Despise

Found on levels 4 and 8, these Magical Balls increased Alfred's Dexterity by five points at a cost of 200 Hit Points. The Yellow Stone turned up on level 5, and a Healing Fountain was situated on level 6. Alfred also ran across an Altar of Dexterity in this dungeon.

Dungeon Destard

Alfred's gang augmented its Strength by touching the Magical Balls on levels 3 and 6, but this did 200 Hit Points in damage to each and every one. The Red Stone he located on level 7, the Altar of Courage on level 8.

Dungeon Wrong

Magical Balls here cost 400 points, but at least they increased Intelligence *and* Dexterity five points each. They were located on levels 3, 6, and 7. On level 8, the Green Stone glowed brightly. When wounded, Alfred's party often drank from the Healing Fountain on level 2, and he recalls the Altar of Truth was somewhere on level 8.

Dungeon Covetous

Like Wrong, this dungeon's Magical Balls boosted two attributes—Strength and Dexterity—at a price of 400 Hit Points. Alfred's notes say they were on level 3 and 6, and he mentions grabbing an abundance of gold that was scattered about level 5. The Orange Stone he found on level 7, and the Altars of Courage and Love on level 8.

Dungeon Shame

The party's Intelligence and Strength were elevated when they fingered the Magical Balls here, which set back each characters 400 Hit Points. After looking high and low, Alfred bumped into them on levels 8, 4, and 1. In the shadows, he discerned a helpful Healing Fountain on level 4 and the Purple Stone on level 2. The Altars of Intelligence and Dexterity he also happened upon in this dungeon.

The Black Stone and the White Stone

Except for the Black Stone and White Stone, Alfred acquired all the stones from the Altars in the dungeons. But he traveled far and wide to lay hands on the others. For the White Stone, he entered Hythloth dungeon (behind Britannia), snared the hot-air balloon, and exited right away. Flying the balloon northwest, Alfred relied on magic to influence the wind's direction so he could land at the Avatar symbol in the Serpent's Spine mountains. The Black Stone was far simpler to find, for he simply searched the Moon Gate near Moonglow during a New Moon.

Dungeon Hythloth

Alfred racked up most of his group's points in this dungeon, since Magical Balls that boost Intelligence, Dexterity, and Strength by five points are all available here. Since this cost 800 Hit Points, he held off on doing so until his party was strong and well stocked with Heal and Resurrect spells. The Balls he found on levels 5 (two on this one), 3, and 1. A Healing Fountain awaited on level 3. With all eight stones in hand, Alfred was able to access all three Altars on level 8.

The Three-Part Key

Much had been made of this strange key that was not a key. About to give up on this vital puzzle, Alfred noticed something

odd while at an Altar, and further experimentation led to his discovery that the Key's three parts were obtained by using correct stones while the character possessing them stood on the proper Altar. He used the Green, Purple, Blue, and White Stones for Truth; the White, Orange, Yellow, and Green for Love; and the Red, Orange, White, and Purple Stones for Courage.

The Stygian Abyss and the Codex

Many months had passed since Alfred took up his quest of the Avatar. By now he had been elevated to the status of full Avatar and had uncovered the secret location of the fabled Stygian Abyss, on an island reached by cruising east from Serpent's Hold. When attacked by waves of pirate ships as he entered the bay, he relied on the Ship's Wheel to restore his damaged vessel. But the only way he was able to safely cross the bay was by defeating a ship to the east, then boarding it, fighting the next one and boarding it, and so on. Each newly conquered ship moved him one step closer along a "bridge" to the shore.

At last Alfred's party hovered over the entrance to the Abyss, at OJ, OJ, where he used the Skull, Bell, Book, and Candle. On level 1, Alfred and his band of seven trailed east along a hall that led through three rooms before going south into a big room that had several walls on the left side. They reached the Altar by moving east twice and north twice; then they used a stone. By answering Honesty and Blue, Alfred was allowed to descend.

Upon reaching level 2, members of the party advanced south through a pair of rooms, then east through two more. The second room led into a hall, where they moved east once and north four times before heading east through a secret door. Magic was required to dispel the fields barring their way east, which carried them to the Altar, where Alfred used a stone.

Alfred's response of Compassion and use of the Yellow Stone opened the way for them to continue to level 3.

Level 3 gave them time to breathe, for it posed few challenges. They merely trod south twice and left the room by going west, finding the Altar by going west through a single room. At the Altar, Alfred used a stone before muttering Valor and Red, and they descended once again.

As level 4 unleashed waves of bestial bloodletting amongst his crew, Alfred guided the party east three times and on through a secret door. Similar doors in the north walls of the next few rooms led them to an orange wall, and from this spot they walked east four and dispelled the energy field. They found the Altar by going east into a room and taking a door to the north. The northern door in the next room opened up to the Altar, where Alfred used a stone, and then responded Justice and Green. Down they went.

Level 5 loomed before them, lined with trap doors activated by stepping on pressure plates in the floor and other elements of the room. This and the deeper parts of the Abyss would defy Alfred's investigative skills as much as they did his leadership in combat. From the spot where they entered, Alfred told the party to follow him south to the wall and then east through the door that led into a room. Here he stepped on a square in the corner of the alcove to the northeast, behind the fields, which opened a secret door. Moving south into the next room, he was flustered at finding an exit until Katrina stepped on the square in the lower southeast corner, which unlocked a secret door south into a room beyond. Again he was frustrated by the devilish design of the secret doors, but at last found one leading east after he stepped on a square of fire below the three "mountains." After using a stone at the Altar, Alfred intoned the words Sacrifice and Orange.

On level 6, Alfred hopped south twice, two times west, south once, and skipped east through a door. The gang kept

close behind as he moved east, then exited south from the room. From the next room he went west. In the next room, he departed by going south, then east from the next room, north from the following one, and east from the one after that. When seeking the secret exit from this room, where an energy field imprisoned a Balron in the northeast corner, Alfred was stymied for hours. Finally he gave up and, in frustration, decided to slay the Balron. He dispelled the field, killed the beast, and walked up and stood on the spot it had formerly occupied. Alfred was amazed to see a secret door swing open to the south the instant he hit the mark. Taking that exit, he went south and put his foot on a square in the center alcove, behind the energy fields, in the room's northeast corner. To open the bridge, he dispelled the field at the south end of the room and stepped on the southeast square. Upon crossing the bridge, he led the team due south. From the next room they headed east, then south to another room, and east to the Altar, upon which Alfred used a stone. Honor was the word he uttered, Purple the color he named in order to climb down to the seventh level.

Another tricky puzzle awaited the squad on level 7. First they moved west once, then north into a room, from whence everyone went west into yet another room. Exiting north, they hiked west into a room where a partitioned area was closed off. Alfred opened this area by first stepping on a square in the wall in the southeast corner, and then walking over to the backwards L and standing in its "corner." A secret door swung open to the north, which they entered. Taking the next door west, Alfred ordered the team member in position 8 to go two steps south and one west, which unlocked a secret door leading north. Through that door they dashed, then shuffled north and west to an Altar, where Alfred used a stone; then he whispered Spirituality and White.

On level 8, the party strode south, then east through a regular door and into a room. From there they traveled east to

another puzzling room. A secret door lay to the north, which was activated when Iolo put one foot on a square in the northeast corner to move some bricks from the square in the southwest corner. They scrambled down the hall into the gloom of the next room, which they departed via a southern door. Another Balron awaited here. Before slaying this one, Alfred stepped on a square in the wall of the southeast corner, which triggered a mechanism in a square below the Balron. Only then did the party attack and kill the beast, upon which Alfred jumped on the square formerly occupied by the Balron. This activated a square at the top of the cage, and when Alfred landed there, he was gratified to witness a secret door open to the south. There he found the final Altar, used a stone, and yodeled Humility and Black Stone to enter the Chamber of the Codex.

In the Codex Chamber, Alfred witnessed a sight both strange and familiar at the same time, and answered the questions thusly: Veramocor, Honesty, Compassion, Valor, Justice, Sacrifice, Honor, Spirituality, Humility, Truth, Love, Courage, Infinity. His quest accomplished, he was instantly transported back to the little park in Sheboygan where he'd first stepped into the Moongate and embarked on his most unusual and rewarding quest so far.

Ultima V
Desperately Seeking Lord British
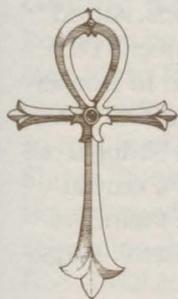
When the next call for help emanated from Britannia, Alfred the Avatar was startled that it came not from Lord British. Several of the monarch's subjects sent this message, to which Alfred immediately responded by hurling himself into the waiting Moongate. Moments later he emerged in Britannia, which had undergone amazing transformations since his last visit. After Alfred had removed the Codex from its underground hiding place, Lord British had placed it high atop a mountain for all to see, in hopes it might influence them to also follow the path of the Avatar. But its unearthing had also triggered horrendous volcanic eruptions that formed a sprawling subterranean land known as the Underworld. Lord British led an expedition to map this area, and when the monarch failed to return, his right-hand man Blackthorn assumed the throne. Passing new laws that would punish the citizenry for unAvatar-like acts, Blackthorn turned into an oppressor who drove Iolo, Shamino, and the other members of Alfred's previ-

213

ous party to go underground, like Robin Hood's merry band. Meanwhile, a trio of evil Shadowlords plagued the land, presenting the Sheboyganite with yet another deadly challenge. Chanting a quick mantra to ground himself, Alfred the Avatar gathered his teammates and set out to find the missing monarch.

The Virtues of a Good Party

As before, Alfred lived according to the code of the Avatar by acting in accordance with the same eight virtues. In addition to employing the same mantras, shrines, and runes he had utilized on his most recent quest, Alfred now had to complete a quest related to each shrine in order to raise his Karma. These Shrine Quests, as Iolo referred to them, proved so easy that Alfred bothered not to make notes on their solutions. Alfred found potential party members in Brittain, Buccaneer's Den, Lycaeum, New Magincia, Serpent's Hold, and Yew. In Bordermarch and Empath Abbey, he was lucky enough to sway two people to join. He regretted the decision to accept Saduj, from Lord British's castle, as a member, for he lost once a crucial item as a result of Saduj. Among his most valuable members was the one hiding in Ararat, who could cast high-level magic spells.

Free Food

Alfred felt he spent far too much money keeping the crew's appetite satisfied, so in the early stages of the quest, he was pleased to find he could got one free meal after another from Cory the cook in Empath Abbey. All he did was ask for shark or squid. They would offer him a taste, which consisted of a single unit of food. Amazingly, time stood still while he engaged in this transaction. Though he lost a few points, Alfred also stole a little food at the outset of the expedition, since he realized it would be a lengthy trip and he'd have plenty of time

to restore them later. When stealing food in some buildings, he would immediately go up or downstairs, then return and steal more, since the food he'd taken was replaced the minute he left the room.

Alfred had a easy time acquiring Skull Keys that unlocked so many of Britannia's doors. By searching the Hollow Tree in the northwest corner of Minoc, he came up with five Skull Keys. He returned the next day and found five more, repeating this whenever he gave out. And once when Alfred found himself short of keys in Lord British's chambers, he just didn't feel like flying the Magic Carpet all the way back to Minoc—so he pushed the cannon on the south wall into position and fired away!

Getting More Gold

Realizing he needed gold and equipment, Alfred took advantage of the fact that Britannia's monsters tended to come out more under a cover of darkness than in broad daylight, so he sought them out at night and devoted his daytime hours to the Shrine Quests, and quizzing people for clues. The mantras had not changed since his last visit, so he didn't have to waste time relearning them. Now, however, there were Words of Power to find. Until each member of the group achieved at least level 4, he shunned the dungeons, which proved a lucrative source of gold when he finally did explore them.

Magic and Potions

Though most of his spellcasting knowledge remained in vogue, Alfred learned several new spells making the rounds in Britannia. By casting In Xen Mani, he was able to create food for himself and his crew. The unusual ability to transform himself into a rat resulted from the Rel Xen Bet spell. And when he needed to vacate the premises in a hurry, Alfred resorted to An Ylem. He also sampled an assortment of potions

recently formulated and sold throughout the land. The Yellow Potion was one of Healing, while the White Potion endowed Alfred with x-ray vision. By quaffing a cup of Red Potion, he was able to quickly cure the effects of poison. An Orange one would put him right to sleep, while Blue had the opposite effect. Black made him invisible, which often proved handy when his Ring of Invisibility expired. Green, he heard, would render him immune from death, but rarely worked.

Just for Fun

Alfred thought he'd been hanging out in the pub too long, for when one of the Fighters yelled, *Flip flop,* the world changed drastically. Everything was turned upside-down! Experimenting, he found he could restore the normal view of the world when outdoors, but not indoors.

An Endless Supply of Arrows

This clever trick Alfred learned from a Dwarf Beggar who had served in Lord British's famed OrcSlayer Brigade long ago. Alfred equipped one of his men with a Magic Bow and gave a regular Bow to another one. When one of them had loosed his

last arrow at a distant target, Alfred shouted at him to drop his Bow. Then he signaled for the other one to commence firing with his Bow. The first bowman, amazed to see his supply of

arrows jump from 0 to 99, reequipped his Bow and started firing again. This not only gave the team additional firepower, but enabled them to spend their gold on other useful items instead of constantly buying more arrows.

How the Get Nine Glass Swords

Following the sextant to the bearings FA, AE, Alfred had turned up a Glass Sword, a powerful weapon rumored strong enough to slay any man, beast, or even Shadowlord. But since it could used only once, Alfred had planned to hold onto the weapon for a true emergency. That emergency occurred only days later, so Alfred returned to the site and discovered a fresh Glass Sword. This time, however, he equipped it right away and, on a hunch, searched the area once more—coming up with yet another Sword. Passing it to one of his Fighters, he told the man to equip it, and upon seeing him do so, searched the spot again and found another Sword. By giving each newly discovered Glass Sword to a party member, having him equip it, and then searching the same place, Alfred wound up with a total of nine death-dueling blades of Glass (one remained in his inventory). He could therefore sally into battle with every man armed thusly, or even transfer them all to one Fighter.

Ring, Ring, Ring

Would someone in this party please answer the phone? Alfred muttered, before realizing these were Rings of Invisibility. His clever use of the Rings often enabled the party to completely avoid combat, which came in handy when they were weak and in the middle of a long campaign in a dungeon or the Underworld. First he and one or two other members of the gang would equip their Rings of Invisibility. Then when they ran into serious trouble, he instructed his visible characters to flee. Because the monsters couldn't see the party member who was

wearing the Rings, they left the combat arena—and Alfred's group won the battle.

Magic Carpet Ride—and a Free Horse

To reach the Underworld in a hurry, he sometimes resorted to a shortcut: riding the Magic Carpet to the Waterfall at IK, DG, which transported Alfred and his party directly to the Underworld. Instead of shelling out good gold for a horse, Alfred felt blessed when his wish at the Wishing Well in Paws came true.

Moongates and Moonstones

Another aspect of Britannia, the Moongates, remained in the same positions, but Alfred made an amazing discovery when he searched the area where such a Gate had just dematerialized. He found a glowing Moonstone, whose use soon taught him trial and error. By placing the Moonstone in a grassy spot anywhere in the kingdom (or below), he could relocate that Moongate in the new location. Alfred was careful to do this with Moonstones from Yew, Trinsic, or Brittany Bay, areas that are easily reached by land after their Moongates were moved. Magincia's Moongate, for example, he left in place, for otherwise it would have taken far too long to sail there everytime he wanted to visit the tiny island.

The Guardian of Stonegate

To get past the Guardian at Stonegate, Alfred tricked him into chasing the group outside and around the Keep. Then they rushed back in the door before the Shadowlord could get there. When that trick failed, Alfred simply cast a Freeze Time spell (the An Tym scroll).

The Shards

In addition to getting his hands on the Words of Power, Alfred was soon apprised of the need for certain Shards. Only with

these in his possession would he have a prayer when it came time to defeat the Shadowlords. (True, he had slain one of them, but the Shadowlord had returned from the dead days later to haunt him.) High and low, low and high—he searched the land with enlightened eye, finally unearthing the Shards in the Underworld. The Shard of Cowardice he found at LA, LI after entering the Underworld through the Dungeon Hythloth. By descending through the Dungeon Deceit, he dug up the Shard of Falsehood at FA, MA. The final Shard, that of Hatred, was hidden at EB, IC, which he reached after crawling through the Dungeon Wrong (though Covetous provides an alternative route). A Magic Carpet greatly assisted his trips through the dungeons, as did several Gems, and he found the In Por spell and Grapple mandatory.

Slaying the Shadowlords

Since he needed to shout the names of the Shadowlords in order to defeat them, Alfred scoured the phone books of Britannia. But apparently their numbers were unlisted, and the operator told him even an Avatar cannot obtain that information. Finally he happened upon their names in several personal ads in the weekend edition of *Paws Today* magazine. The Shadowlord of Cowardice was named Nosfentor. Faulinei was the the real name of the Shadowlord of Falsehood, and the Shadowlord of Hatred was known as Astaroth. By yelling the name of the Shadowlord of Falsehood at the Flame of Truth, Alfred summoned the archfiend to appear in the Flame, then used the Shard of Falsehood to slay the Shadowlord. This routine he adhered to for the other Shadowlords. Alfred found the Flame of Truth at the Lycaeum, the Flame of Courage at Serpent's Hold, and the Flame of Love in Empath Abbey.

The Sandalwood Box

While exploring Lord British's castle, Alfred happened across a harpsichord, which he eventually learned to play by taking lessons from Lord Kenneth in Greystone. When he returned and played the tune he'd memorized, Alfred was rewarded with the revelation of a secret door that led to a room where he found a Sandalwood Box. For some inexplicable reason, Alfred held onto this apparently useless piece of wood throughout the quest, and was glad he had done so when he finally found Lord British. For the monarch, as delighted as he was to have been rescued, desired the Sandalwood Box as much as his freedom, and would have simply sent Alfred back to the surface had he arrived without it.

Alfred's Amulet and Crown

In order to pass through the Dark Area in the Underworld, Alfred relied on an Amulet he found in the Grave of Valiant Warriors (near OE, GJ) in the Underworld. The Crown, which he found on top of Lord British's castle, saved his life many times while battling magical monsters in the dungeons.

Getting the Sceptre—the Easy Way

Alfred hit upon a simple way to obtain the Sceptre, which he did by taking a skiff as far south of the Lost Hope Bay as possible. Then he used a Grapple to climb through the mountains to the south, where he entered the door and said well to the Daemon. After slaying it, he duped Shadowlords into following him outside and around the building; then he flew back on the Magic Carpet, entered and grabbed the Sceptre, and escaped before they could catch up.

Say the Magic Word

Several people Alfred met in the Britannian underground refused to cooperate with him until he spoke the passwords

they wanted to hear. Long and hard he looked, until finally he learned the password for Oppression was impera, and that dawn was the word for Resistance.

Say the Magic Words of Power
Alfred's search for the Words of Power took him to the far ends of Britannia, but without them he and his party could never have entered the dungeons. To open the way into the following caverns, he spoke these Words:

Covetous   avidus
Deceit   fallaw
Destard   inopia
Despise   vilis
Wrong   malul
Hythloth   ignavus
Shame   infama
Doom   veramocor

Alfred's "Things to Do List"
After completing four previous quests, Alfred knew well the advantages of approaching such a mission with a plan. He fished out pen and paper and drafted a list of things to do after his party was well equipped and he'd completed the Shrine Quests and gained knowledge of the Words of Power. All-important for determining his longitude and latitude, the Sextant was his first acquisition, which he obtained from David in Greyhaven. The Black Badge was high on that list, and Elisteria in Windemere furnished him with this item. While in that same place, he looked up Thrud and obtained the Jeweled Sword and Shield. The Mystic Arms he recovered from their hiding place in the Underworld (entering from Dungeon Hythloth, he traveled to OL, NF and spied them in the lava

north beyond the peaks). The Grapple needed to scale moun-
tainous areas was volunteered by Lord Michael of Empath
Abbey. In Farthing he found the Spyglass, in the possession of
Lord Segallion. The fabled Magic Axe turned up outside the
east walls of Jhelom, though Alfred had to first look around on
the main level for a secret door in the northeast section. Plans
for the HMS *Cape* were hidden in East Brittany, and these
helped speed his sailing ship considerably. Two vital reagents,
Nightshade and Mandrake Root, could be gathered only at
midnight, and these he found at JF, CO and DG, LG, respec-
tively.

The Road to Dungeon Doom

By now Alfred had slain the Shadowlords, learned the Words
of Power, and claimed the Crown, Sceptre and the Sandalwood
Box. The Underworld held no more mysteries for him, so he
gathered his band and told them he suspected Lord British was
held prisoner in Dungeon Doom, their next and hopefully final
destination. Reaching Doom was an adventure in itself, for it
meant a descent through the Dungeon Shame to the very
center of the Underworld.

Upon shouting the Word of Power to enter Shame, the band
found themselves seemingly trapped within a doorless room.
Alfred signaled them to hurl Magic Axes at the boulders on the
south edge, which opened a secret door leading south. Going
through the first hall on the left, the party moved deeper into
the dungeon to the seventh level, where a sign incorrectly told
them they had reached its deepest level. But by moving south
four times, they were able to go even further, down to an
eighth level. Here they shuffled once to the west and called on
a Des Por spell to reach the Underworld. They raced due east
until they could go no further without magic, for a Blink spell
was needed to attain the next midway point, a grassy plain
where they rode the Magic Carpet across the waters. Donning

the Crown, Alfred motioned for his stalwart band to follow as
he plunged into the Dungeon Doom.

A One-Way Ticket to Doom

In all his days as a dungeoneer, Alfred had never plumbed the
depths of catacombs so convoluted as the twisted passages of
Doom. To retrace his steps should the need arise, he drew
precise maps, indicating with numbers certain points along the
way. In the first room, through which the group seemed
unable to progress at all, he cleared a passage by swinging the
Sceptre. Advancing to position 1, he led the group through a
hall and at position 2 descended the ladder to level 2. Arriving
at position 3, he cautiously scouted around before going down
another ladder located at position 4.

This brought the group to the third level, at position 5 on
Alfred's map. Eastward they marched through the dank dun-
geon air, pausing only to kill any monsters that strayed across
their path to the secret door through which they passed. They
continued east to position 6, a room where they found a ladder
leading to position 7 on level 4. Not stopping on this level, they
kept descending until they reached level 5.

On level 5 the heros emerged at position 8, immediately
hustling eastward and ascending the pit they discovered at
position 9. This took them back to level 4, at the point marked
10. Moving south and locating a pit at position 11, they de-
scended and found themselves once more on level 5, in a
corridor extending east to west. Alfred led them east to the first
intersection that went north and into a pit going up between
intersections. Ascending this pit, they climbed out on level 4,
this time at position 12 on the map. In the southwest corner,
they uncovered a pit at position 13, where a ladder descended
straight through to the sixth level.

Arriving on level 6 at the position marked 14, Alfred di-
rected the party west into a room at a junction. After traveling

north, they discovered a ladder at position 15 that transported
them to level 7.

The trickiest part of Dungeon Doom proved to be getting in
and out of level 7. While the group moved north from position
16 on level 7 to the room in middle of the hall, they killed all
the monsters they met. Fear and Tremor spells worked well,
and Alfred was glad the remembered to wear the Crown.
Under the sandtrap in the room's center, Alfred happened
upon a chest. After he'd removed its contents, a ladder ap-
peared there, which the party descended to level 8.

On level 8 they fought long and hard to slay every last
Dragon and Sea Serpent in sight. A river flowed through the
room at position 17, blocking their passage, and Alfred eventu-
ally found the trip lever in the room's upper left corner and
activated the bridge that allowed them to cross the raging
currents. This one was triggered by throwing spears or other
missile weapons at the wall left of the waterfall. After dashing
across, the band headed west and climbed a ladder to position
18 on level 7.

The battle lasted hours, but finally Alfred's stalwart crew
had slain every last fiend on level 7. Now, however, their
puzzle-solving skills were once more put to the test. The
mechanism proved to be a two-stage apparatus. First Alfred
pushed on the wall near the grate to expose a northern section
of the wall. Then he pushed on that section, which revealed a
southern exit. Through this they escaped, finding a trap at the
hall's end and descending it to position 19 on level 8. Here
they headed west and ascended a ladder to position 20 on
level 7.

Finding themselves on level 7 again, they struck out west
and south from position 20, and then searched for and skirted
a pit trap the in corner before descending the next pit trap to
position 21 on level 8. Sensing the presence of Doom's most

powerful monsters below, Alfred donned his Crown before descending.

On the island marked 21, a ferocious battle erupted, but the group at last exterminated every monster. Alfred ordered a Fighter to the room's north section, and after the exit there was sealed off, told his Cleric to push on the niche in the northeast corner of the room. This activated a trip mechanism that opened an exit to the east. Moving east to position 22, he and his band struggled up the ladder to position 23 on level 7. Wearing the Crown, Alfred used his Sceptre to destroy the barrier, and then led his band through and into battle with the monsters. Exiting east, he kept an eye out of the trap in that hall, which he searched upon spying it. Descending the pit to position 24 on level 8, Alfred humbly approached the mirror. Handing the Sandalwood Box to Lord British, Alfred bowed humbly in the presence of his liege and inquired: "Lord British, I presume?"
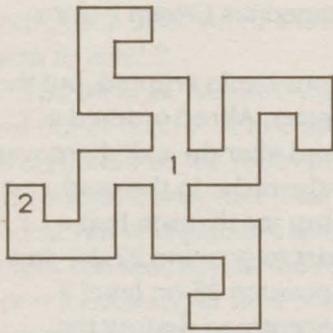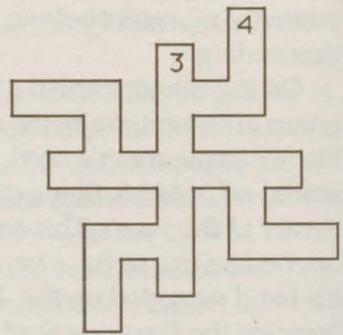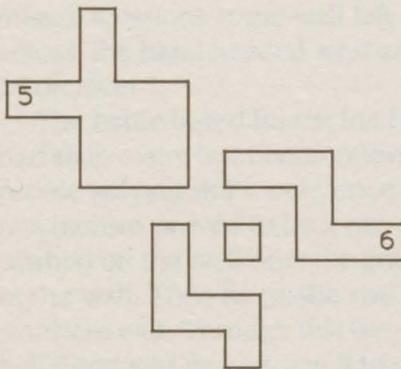
Level 1
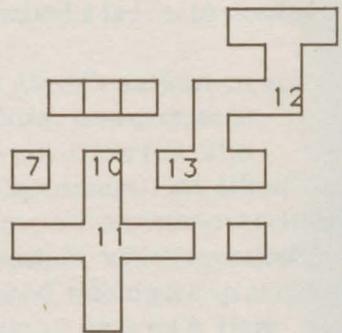
Level 2

Level 3

Level 4

Dungeon Doom
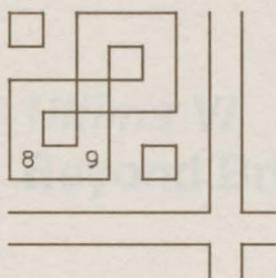
Level 5
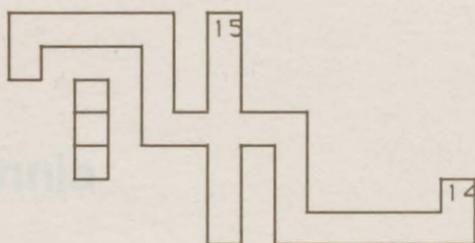
Level 6
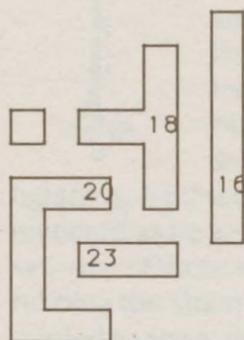
Level 7
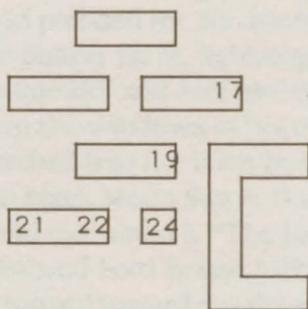
Level 8

Dungeon Doom

Ultima VI
Beyond Britannia
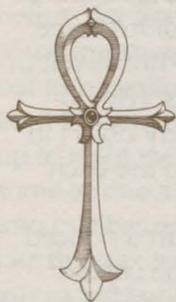
Alfred aimed the remote control and zapped another Bill Cosby Jello commercial, hopping to a channel where a TV evangelist whooped and hollered and pleaded for donations. Before he could hit the button again, lightning crackled in the nighttime sky and sent him dashing outside to roll up the windows in his car. In a small circle scorched into the lawn by a bolt of lightning, he discovered a small black Moon Stone. "Odd," he muttered as he scooped it up and examined it. "The last time I saw one of these was when I rescued Lord British." Absently rubbing the Moon Stone as he moved toward the door, he was startled to see a glowing red door materialize before him. "Lord British," he ascertained, "is in trouble again. What would those Britannians do without me?" he wondered as he stepped into the door, bound for the land he'd last seen more than two years ago.

Instead of arriving in Britannia, however, the Sheboyganite found himself stretched across a cold stone slab, where a fiendish-looking red monster raised a razor-sharp blade high in

229

the air and swung it down in the general direction of Alfred's heart. "Wait a minute!" he shouted. "I need that!" He wouldn't have held onto his heart another second, though, if his old pals Dupre, Shamino, and Iolo hadn't arrived just in time to save the day. Cautiously staying out of the ensuing battle himself, he backed off and let them dispatch the gaggle of Gargoyles who came at them from every direction. (His buddies were already armed for battle, and he might have been slain had he entered the fray.)

In his castle, Lord British told the baffled travel agent of the latest threat to Britannia: the Gargoyles had seized the shrines of the eight virtues and were using them as spheres of influence from which to launch vicious raids across the land. Alfred accepted the quest to squelch the Gargoyles, but didn't leave the castle until he got hold of the equipment Lord British left in the room across the hall from his private chambers. (He noticed that all of these items could be used, like every object in Britannia, and realized that the faster he learned to use each item, the better his chances of fulfilling his goals.)

While in the neighborhood a few days later, Alfred noticed a Mouse in Lord British's castle. Upon accepting the cheese Alfred offered, the Mouse offered to join the party. Alfred hoped she would lead him to some valuable artifact. She was on the verge of retrieving for him a rune from a hiding place could that only be reached through a tiny mouse hole when the party ventured outdoors for some fresh air and was attacked by monsters. The Mouse was killed in combat. Because the Healers could not resurrect such an animal, Alfred could not get the rune until he'd attained the eighth level and could cast the Resurrect spell. From this lesson he learned to protect weaker party members if they happened to encounter any monsters.

Preparing for the Quest

Until Alfred had fully mastered his weapons and become
familiar with the new ways of Britannia, he avoided conflicts
with the Gargoyles, staying far from the shrines where they
gathered. When his party was wounded and didn't risk going
into battle to earn money, Alfred found a nonviolent means of
doing so. He simply put everyone to work in the local econ-
omy, doing things like milking cows, making butter, and so on
to earn cash.

Looking for a Party

Alfred found it easier to recruit party members than ever
before, for none hid away like Katrina the Shepherd had so
many quests ago. And he was relieved none of them turned
out to be traitors, as had happened on his expedition to rescue
Lord British. Though he was capable of maintaining a party of
up to eight members, he found such a large group cumber-
some to direct and only used a full complement when going
into combat with the Gargoyles. Some of the party members,
like the Mouse in Lord British's castle, remained with Alfred's
group only until their purposes were accomplished.

Combat

By keeping his team balanced on the field of battle, Alfred
achieved the greatest success. He had noticed their initial
formation was already well balanced for a normal battle: two
on the front line, Iolo in back with a Crossbow, and himself
free to move about as needed. In this pattern, he availed
himself of the team's new "auto-combat" capability. During the
toughest battles, however, in his first few weeks there, he
directed their actions manually. Once the team was powerful,
he found he could rely on auto-combat more frequently. Of the
many weapons he ran across, Alfred found the Triple Cross-
bow, which shot three projectiles at once, to be the most effec-

tive. But he was unable to buy it until he asked about it in Britannia, where it then appeared on the shelf at Iolo's Bows.

Iolo's Cheat Menu

Alfred heard rumors of other less-than-Avatar–like tricks, such as Alt-2, 1, 3. When pressed on the Keyboard of the Occult, this combination apprised him of his current location and other valuable information. However, he also found a far more provocative and practical Undocumented Cheat awaits those adventurers cunning enough to discover the password. Always one to badger, Alfred had persistently pestered Iolo about how to "cheat." Finally the Bard broke down and told him about a secret menu of six undocumented cheats. When he finally found the password required to gain access to the cheat menu, Alfred swore a sacred oath never to reveal it, but says he did see the password displayed within the world of *Ultima VI*, though it is not referred to there as a password. Once he had the password, a world of ways to cheat opened up. Alfred found he could acquire any weapon, armor, or artifact in the game with the "Get Item" choice on the menu. "Set flags" permitted him to change settings that affect how nonplayer characters interact with him, while "View NPCs" let him scan all portraits and inventory of every nonplayer character. You can "Edit Player" to alter each party member's attributes and other elements, but a mysterious "Edit Party" option also beckons those who would experiment.

The Gargoyles and the Shrines

When he was finally confident of his team's proficiency in combat and had armed and armored them sufficiently, he ventured forth to the nearest shrine. After several confrontations, he realized the best strategy for combat was to concentrate on knocking out the Berserker Gargoyle, the one that sallies forth into battle faster and fights more furiously than the rest. But

once he defeated them, Alfred was dismayed to find the shrine protected by an impenetrable force field. It took days to work out a solution to this problem, which in the end he solved with the runes. A specific rune existed for each of the eight shrines and virtues, and he collected all of them from the various towns where they had been scattered since his last sojourn in Britannia. Taking the rune of Valor and using it outside the force field surrounding the shrine of Valor, he was able to defeat the force field. He immediately grabbed the Moon Stone from the altar where the Gargoyles had placed it, which liberated the shrine from their influence and allowed him to use the shrine as he had done during previous quests. This also prevented the Gargoyles from returning to that shrine. The Stone could be used for Moon Gate travel. (The black Moon Stone he still carried also proved capable of teleporting him to countless destinations. To use it, Alfred cast it down on the ground; its destination, he learned, was based upon its relative position to himself, and he drew up a chart of all the places the black orb could transport him to, along with how to get there.)

The Book of Prophecy

Next he considered the Book he'd brought back from the Gargoyles' land. Lord British told him to take it to the Lycaeum. This might have taken weeks had Alfred saved up his money to buy a ship to sail there. But he had spent time unraveling the secrets of the black Moon Stone he'd found in his yard back in Wisconsin; through trial and error he discovered how to travel to the original Moon Gate locations as well as the shrines. Since one of them was near the Lycaeum, he saved many days otherwise wasted.

At the Lycaeum he learned a few of the Book's secrets, such as its full name and its reference to a False Prophet who must be sacrificed to save their world from doom. But without the

other half of the Silver Tablet, Moriah couldn't decipher the rest of the Book. In hopes he'd recover it, she sent him to find it.

Another of her suggestions led him to track down Sin 'Vraal, a Gargoyle whom everyone had thought a demon until now. Sin 'Vraal, who lived in the desert, could tell him little more than he already knew, but did mention the location of the Silver Tablet. It was buried along with a hoard of pirate treasure, the whereabouts of which were marked on a map. With a gleam in his eye, Alfred saw an opportunity to strike it rich and get his hands on the Tablet at the same time, and set out to find the man Sin 'Vraal said might know more about the pirates.

The Pirates' Map

Alfred shook his head dubiously upon learning the map had been torn into nine pieces that were divided among the pirates. It seemed impossible to find them all, but he had no alternative. Pirates would probably be found hanging out in Buccaneer's Den, he reasoned, so a'sailing he did go. There he met a former member of the pirate gang, who spilled the names of several of the people who held the map pieces. This gave Alfred the leads he needed, for when he tracked down these pirates, he was inevitably steered toward other sources of information. Some map pieces were still in the possession of individual pirates, but some of them had died or forgotten where they hid their pieces. Most of them were relatively easy to find in this manner, but not the one in the city of Trinsic. One of the pirates had given up his life of crime and actually become Mayor of the town. Instead of approaching him directly, Alfred first talked the matter over with a cook who had served as the ship's cook for the pirates. The cook was employed at a tavern in Trinsic, and by querying him and doing him some favors, Alfred convinced him to give up the Mayor's secret.

Once Alfred had obtained all nine pieces of the map, he found it necessary to arrange them in the proper pattern on the ground. Over and over he attempted to do so, and finally resorted to comparing it with the cloth map of Britannia that Lord British had furnished. Only then did he uncover the pirate's hoard and get hold of the prized Silver Tablet. After taking it back to Mariah and learning more of the Prophecy of the Gargoyles, he took her advice and visited Sin 'Vraal again. This time Sin told him that a journey to the sacred shrine of the Gargoyles would teach him more about them.

The Gargoyles' Shrine and the Balloon

The shrine of the Gargoyles was atop a mountain peak too high to climb, but Alfred remembered the hot-air balloon he'd used on an earlier trip to Britannia. While he couldn't find another balloon, he did learn that plans for its construction still existed. The search for the plans led him to Minoc, where he heard the balloon's inventor had gone to work for a mad wizard, Sutek, who had taken over Blackthorn's castle. Alfred was informed that the inventor had died while toiling in the dungeons, so he and his party searched the catacombs below the castle and eventually found the body of the inventor, who still clutched the plans. The most devilish part of this venture was figuring out which path to take when he met the two-headed puzzler in the dungeon on the level just below the entrance. Each head posed riddles designed to indicate whether it spoke truthfully when telling him which fork to follow. (One head always lied, the other always told the truth.) Alfred took the wrong path the first time and wandered around for days without finding the entrance to the lower levels. Fortunately he had availed himself of the magical "Save" command before making his decision and was able to return to that spot and follow the other corridor.

With the plans for the balloon, Alfred had little trouble rounding up the necessary items: a basket (woven by a Basket Weaver after seeing Alfred's plans,) a rope, and a kettle. The most involved element was the big silk bag, which he had to have custom made. This Alfred did by obtaining some silk, having it spun into thread, and then getting the thread woven into cloth, which a Clothier promptly stitched into the necessary bag.

He took the balloon to the Gargoyles' world by descending into Dungeon Hythloth in the southeastern corner of Britannia. (Later he employed the black Moon Stone to travel there in the blink of an eye.) On the lowest level of Hythloth he met Captain John, who taught him more of the Gargoyle language and introduced him to a friendly Gargoyle. This one advised Alfred to turn himself in, since he was the False Prophet of whom the Book foretold. Doing so, Alfred was presented with a medallion to wear about his neck, marking him for eventual sacrifice. But this also enabled him to move freely about the land and learn even more about this society from its people and books. He was also free to use the hot-air balloon to reach the Gargoyles' shrine. There he read more about the Book of Prophecy and was relieved to discover another interpretation of the references to the sacrifice of the False Prophet.

Secrets of the Codex

Upon learning the true history of the Codex, Alfred looked into the ritual the Gargoyles originally used to acquire it from the Vortex. He knew the Gargoyles might summon him to the sacrificial altar at any moment, and searched for a way to reverse the ritual and send the Codex back to its home. This information and more he obtained from the Gargoyle Scholar and the Gargoyle Lensmaker. (He found the Lensmaker by traveling due north a distance from the place where he was first introduced to the Scholar.)

236

Alfred now knew most of what he had to do to reverse the ritual, a process that required two special Lenses. The Gargoyles still had their Lens, but it had been cracked when they used it to grab the Codex. This was easy enough to fix, for the Lensmaker was eager to repair it. Back in Britannia, Alfred found an Astronomer who knew how to make Lenses. He showed the Gargoyle Lens to the Astronomer, but the fellow also demanded some magical Glass Swords that he needed to melt down for the glass. These Alfred obtained from a Glassblower in Minoc, who asked only for some Magic Gems. Alfred didn't have enough gold to buy as many as he needed at the Provisioner's, so he went prospecting in the local mines.

With both Lenses snugly stashed in his cloth bag, Alfred wondered what to do next. The Lenses, he knew by now, had merely allowed the Gargoyles to see the Codex. To draw it into the real world, they had constructed a Vortex Cube. Like so many other valuable artifacts in this land, the Cube was missing. The Shadowlords, who themselves originated in the Vortex, had stolen the Cube for use in their own weird rituals. This information led Alfred to their old haunt, Stonegate. In the depths of its dungeons, he searched every room until finding one that defied all efforts to open its door. Here, he intuited, in this room on the lowest level of the dungeon, was the Vortex Cube he so greatly needed—but where was the key? It was not hidden in the dungeons, but was in the hands of a Cyclops who lived in the upper levels; upon befriending the Cyclops, Alfred finally got hold of the prized key.

The Vortex Cube

Once Alfred got hold of the Vortex Cube, he took it and the two Lenses to the Codex. Arranging them them in the correct order around the Codex, he tried to use the Cube. Nothing happened. He examined the Cube, shook it, tapped it on the side, and tried again, to no avail. "What? Are the batteries

dead?" he asked, grabbing it again. Resourceful world traveler that he is, Alfred popped the eight Moon Stones, which bore an uncanny resemble to Duracell double-A's, into the Cube. Voila! The Codex slipped back into the Vortex, where Gargoyles and Humans could each view it with their individual Lenses. Alfred had again saved Lord British and his people. When he arrived back in Sheboygan, he was proudly wearing the first souvenir he'd ever brought back from that fantasy land: a t-shirt emblazoned with the phrase MY FATHER WENT TO BRITANNIA, AND ALL I GOT WAS THIS LOUSY T-SHIRT.

Resources

For more information on *Ultima*, Lord British, ORIGIN, as well as clues and strategies to *Ultima VI* and the rest of the series, several alternatives exist. The major telecommunications networks offer game clubs with an extensive amount of space devoted to *Ultima* and other role-playing games. ORIGIN plans to release a clue book with maps. By Christmas, 1990, ORIGIN's *Quest for Clues III* is expected to feature a solution with maps and more information. Until then, *Quest-Busters™ The Adventurers' Journal* will be publishing extensive clues and maps throughout 1990.

CompuServe
Accessible with any computer. (800) 848-8199

Delphi
Accessible with any computer. (800) 544-4005

GEnie
Accessible with any computer. (800) 638-9636

Prodigy
MS-DOS only. (914) 993-8000

QuantumLink
C-64/128 only. (800) 392-8200

America Online (formerly AppleLink)
Apple only. (800) 227-6364

PCLink
MS-DOS only. (800) 458-8532

QuestBusters
Monthly journal with news, clues, and reviews of adventure
and role-playing games. P.O. Box 5845, Tucson, AZ 85703
(Mention this book for a free sample.)

Index

Index

Index

What do chivalry, the Dead Sea scrolls, Paul McCartney, *The Wizard of Oz,* Monty Python, Stonehenge, and NASA have in common?

They're all part of *Ultima,* the internationally best-selling series of computer role-playing simulations from ORIGIN Systems. Now, for the first time, you'll learn the inside story of these remarkable adventures and the people who created them in *The Official Book of Ultima* from COMPUTE! Books.

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† Why there is a cloth map in every edition of *Ultima*

Shay Addams, publisher and editor of *QuestBusters: The Adventurer's Journal* and noted computer gaming columnist, worked closely with ORIGIN Systems and Richard Garriott, creator of the *Ultima* simulations, to bring the many worlds of *Ultima* to life with humor and style. The enchanting illustrations are by Denis Loubet, chief *Ultima* artist for ORIGIN. There's even an introduction by Lord British himself, ruler of *Ultima*'s electronic realm.

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