

Erik Davis

## Techgnosis: Magic, Memory, and the Angels of Information

- 2 Unless otherwise noted, references and quotations that follow are from the first three issues of *Mondo 2000*—1 (1989), its cover indicating Fall #7 (ostensibly as a continuation of *Reality Hackers*, which is figured in the illustration on the front cover), 2 (Summer 1990), and 3 (Winter 1991).
- 3 Reference here is to *True Names*, an SF novella published during the emergence of cyberpunk SF and concerned with a group of hackers whose computer pseudonyms hide their "true names" and physical identities, the knowledge of which constitutes the greatest threat and the greatest intimacy. See Vernor Vinge, *True Names and Other Dangers* (New York, 1984).
- 4 Donna Haraway, "A Manifesto for Cyborgs: Science, Technology and Socialist Feminism in the 1980s," *Socialist Review* 15 (1985): 65-107.
- 5 Vivian Sobchack, "Toward a Phenomenology of Cinematic and Electronic Presence: The Scene of the Screen," *Post Script* 10 (Fall 1990): 50-59. See also "Post-futurism," in my *Screening Space: The American Science Fiction Film* (New York, 1987), 223-305; and *The Address of the Eye: A Phenomenology of Film Experience* (Princeton, 1992), 300-302.
- 6 Constance Penley and Andrew Ross, "Cyborgs at Large: Interview with Donna Haraway," *Social Text* 25/26 (1991): 20.
- 7 Don Ihde, *Technology and the Lifeworld: From Garden to Earth* (Bloomington, 1990), 75-76.
- 8 R. U. Sirius, quoted in "Sex, Drugs, & Cyberspace," *Express: The East Bay's Free Weekly*, 28 September 1990, 12.
- 9 Gareth Branwyn, "Cyberpunk," in *Mondo 2000: A User's Guide to the New Edge*, ed. Rudy Rucker, R. U. Sirius, and Queen Mu (New York, 1992), 66.
- 10 *Ibid.*
- 11 Rudy Rucker, "On the Edge of the Pacific," in Rucker, Sirius, and Mu, eds., *User's Guide*, 13.
- 12 Issues 4 and 5 are not dated (most likely an effect of their irregular publication). Issues 6, 7, and 8 (the latest at the time this was written) are dated 1992.
- 13 Tim Appelo, "Far In and Out," *Entertainment Weekly*, 27 November 1992, 72.
- 14 R. U. Sirius, "A User's Guide to Using This Guide," in Rucker, Sirius, and Mu, eds., *User's Guide*, 16.

One of the most compelling snares is the use of the term *metaphor* to describe a correspondence between what the users see on the screen and how they should think about what they are manipulating. . . . There are clear connotations to the stage, theatrics, magic—all of which give much stronger hints as to the direction to be followed. For example, the screen as "paper to be marked on" is a metaphor that suggests pencils, brushes, and typewriting. . . . Should we transfer the paper metaphor so perfectly that the screen is as hard as paper to erase and change? Clearly not. If it is to be like magical paper, then it is the *magical* part that is all important.

—Alan Kay

While allegory employs "machinery," it is not an engineer's type of machinery at all. It does not use up real fuels, does not transform such fuels into real energy. Instead, it is a fantasized energy, like the fantasized power conferred on the shaman by his belief in daemons.

—Angus Fletcher

Within the armour is the butterfly and within the butterfly—is the signal from another star.

—Philip K. Dick

The *South Atlantic Quarterly* 92:4, Fall 1993.  
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ccc 0038-2876/93/\$1.50.

The French scholar Festugière divided the *Hermeticum* into "popular Hermeticism"—astrology, alchemy, and the occult arts—and "erudite Hermeticism," a more elevated Gnostic philosophy that emphasized the ability of humanity to discover within itself the mystical knowledge of god and cosmos. Man was considered to be a star-demon in corporeal guise, able to recover his cosmic powers through gnosis, the moment of mystical illumination. The texts emphasized two loosely differentiated modes of gnosis. So-called optimist gnosis saw the world as a manifest map of divine revelation and held that, as John French puts it, "by inscribing a representation of the universe within his own mens [higher mind], man can ascend and unite with God."<sup>1</sup> This positive Gnosticism drove the proto-scientific impulses of later magicians, for whom the universe was alive with sentient stellar forces in constant communication with the earth, forces which could be discovered and manipulated by the magus.

The *Hermeticum's* "pessimist" gnosis was derived from elaborate allegorical cosmologies that saw the world as a trap ruled by an ignorant, often malevolent demiurge. The true God was the distant Alien God, and to hear his liberating call, man had to awaken the "spark" or "seed" of light buried within. This moment of Gnostic revelation was not just an ineffable mystical oneness, but an influx of cosmic knowledge.

From the beginning, the hermetically inspired magician was immersed in data. In *Mind to Hermes*, the eleventh treatise of the *Hermeticum*, Mind promises that if "you embrace in thought all things at once, time, place, substances, quantities, qualities, you will comprehend God."<sup>2</sup> Part of the hermetic urge was encyclopedic, and magicians hoarded a stunning amount of information: ritual names, spells, and astrological correspondences; numerological techniques; ciphers, signs, and sigils; lists of herbs, metals, incense, and talismanic images.

But magicians needed to organize this vast arena, and some employed techniques derived from a classical art highly relevant to issues of computer representation: the artificial memory. As described by Cicero and other rhetoricians, and discussed at length in Frances Yates's remarkable *Art of Memory*, the art consisted of mentally creating a series of imaginative spaces, usually a vast building, rigor-

ously constructed down to the right size and even the right lighting. Within these units were placed images of the things or words to be remembered, ranging from striking figures of bloody gods to simple emblems like anchors or swords. By "walking" through the phantasmic palace, one could locate the appropriate icon and then recover its store of words and information.

This virtual mnemonics evidently worked: the rhetorician Seneca could hear a list of two thousand names and spit them back in order. Later, in the Middle Ages, a truncated form of the art was transformed by the Scholastics into a didactic technique for allegorically representing the church's innumerable vices and virtues. Rather than use the palaces of the classical world, the Schoolmen often lodged their data in the multilayered onion of the cosmos itself, that dense vertical bureaucracy of hell, purgatory, and heaven. Yates argues that Dante's *Divine Comedy* was in many ways a product of the art of memory, as it followed the classical rule of "striking images on orders of places."<sup>3</sup>

The brilliant medieval Neoplatonist Raymond Lull took a different tack in his mnemonic art, which he claimed would enable the user to know everything that was going on in the universe and retain the information. Lull's art consisted of an abstract and incredibly complex system of wheels within wheels. The rims of these wheels were inscribed with letters which stood for the nine qualities of God that Lull had seen in a vision, qualities which reflected and organized the sum of all knowledge. But "Doctor Illuminatus," as Lull was called, added a fascinating twist: by shifting the wheels, one could create endless combinations of concepts. Lull's art was thus an ancestor of symbolic logic and influenced Leibniz's development of calculus. Recognizing Lull's work as one of the computer's "secret origins," the German philosopher Werner Künzel translated his *Ars magna* into the programming language COBOL. In *Magical Alphabets*, Nigel Pennick points out that Lull's combinatorial wheels anticipate Charles Babbage's nineteenth-century "difference engine"—which used a system of gears to perform polynomial equations—and "hence can be considered the occult origin of modern computers."<sup>4</sup>

Yates makes a similar suggestion when she describes the highly systematized and profoundly magical memory charts in the *De umbris*

*idearum* of the Renaissance genius Giordano Bruno (who ended his days on a Vatican pyre, a "martyr to science" who was actually a flagrantly heretical mystic). Bruno's systems were of "appalling complexity," combining Lull's interlocking wheels with a dense iconography of star-demons derived from astrological applications of the art of memory ("demons," here as throughout this essay, does not imply evil, but like "daemons," describes spiritual entities that can range from gnomes to planetary rulers to archangels). Bruno's system was meant to be internalized in the imagination, for like most hermeticists, Bruno believed that "the astral forces which govern the outer world also operate within, and can be reproduced or captured there to operate a magico-mechanical memory." Yates sees a "curiously close" spiritual link between Bruno's memory system and the "mind machines" discussed in the 1960s.<sup>5</sup>

At the very least, this link attests to the continuity between the impulses of magic and the scientific drive toward technological and symbolic mastery, a drive which in many ways is realized in the universal machine. "The Renaissance conception of an animistic universe, operated by magic, prepared the way for the conception of a mechanical universe, operated by mathematics."<sup>6</sup> Yet today, as our own mind-machines push the boundaries of the atomized, mechanistic paradigm toward self-organization, holistic complexity, and artificial life, Bruno's vision of a densely interconnected universe alive with constant communication begins to flicker on the screen, like some ghostly landscape arising from a hazy childhood recollection.

In his *Confessions*, Augustine gives a remarkable sense of what it must feel like to use the artificial memory, describing "the plains, and caves, and caverns of . . . memory, innumerable and innumerable full of innumerable kinds of things." Augustine calls this an "inner place, which is as yet no place," and catalogs the images, knowledges, and experiences that exist there: "Over all these do I run, I fly; I dive on this side and that, as far as I can, and there is no end."<sup>7</sup>

If Augustine sounds like one of William Gibson's cowboys, he should, for cyberspace is a space of memory, a "graphic representation of data abstracted from the banks of every computer in the

human system. . . . Lines of light ranged in the non-space of the mind, clusters and constellations of data."<sup>8</sup> Through their Nintendo-like decks, Gibson's cowboys run and fly. "Put the 'trodes on and they were out there, all the data in the world stacked up like one big neon city, so that you could cruise around and have a kind of grip on it, visually anyway, because if you didn't, it was too complicated, trying to find your way to a particular piece of data you needed."<sup>9</sup>

While the concept of using digital space to represent abstract data can be traced back to Ivan Sutherland in the 1960s, a particularly rich form of that concept was conjured up in a 1990 *New York Times* article on a Columbia research project partly funded by Citicorp: a virtual reality system that would allow traders to use a special glove to manipulate 3-D representations of options portfolios that would change as variables, such as interest rates, shifted. And the virtual-reality flagship company VPL was working with an actuary company that wanted to represent discrete collections of information as trees within a vast forest tied to its data base.

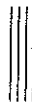
With this (unrealized) image of an insurance agent wandering through a forest of premiums, we're back in the allegorical heart of the medieval art of memory, when Lull created the *Arbor scientiae*. These visual charts attempted to schematize the total encyclopedia of all knowledge into a forest of trees, organized under the abstract qualities of God (*bonitas, virtus, gloria*, and so forth). Adolf Katzenbogen writes that trees work as metaphors because "the highly articulated structure of the growths of nature could lodge complicated systems of abstraction and their upward development could be interpreted step by step—or rather, branch by branch."<sup>10</sup>

Such allegorical knowledge-maps take an interesting turn when they become allegorical narratives. For it's only a few steps from Lull's overdetermined grove to the bowers, forests, and caves in Spenser's *Faerie Queene*, a poem Coleridge described as taking place in a domain "ignorant of all artificial boundary, all material obstacles. . . . [I]t is truly in land of Faery, that is, of mental space." "For all their lush and evocative description, these spaces are not so much sensual as they are dense visualizations of abstract conceptions of sin, temptation, and redemption. As Angus Fletcher explains in his remarkable *Allegory*, "[F]or the suggestiveness and intensity of ambiguous meta-

phorical language allegory substitutes a sort of figurative geometry. It enables the poet, as Francis Bacon observed, to 'measure countries in the mind.'<sup>12</sup>

Yet for all the strict hierarchies implied in the geometric cartographies of Dante, the *Faerie Queene*, or *Pilgrim's Progress*, the spaces of allegory remain fundamentally phantasmic, dreamlike and metamorphic, as if the very rigidity of their codes produces a surreal countermovement. Fletcher points out that even though allegorical elements are highly ordered, their causal connections and behavior are far more magical than rational. This magical ordering describes the mindset of the Renaissance magus and his allegorical science, as well as the rigorous pseudoscience that undergirds the frequently allegorical nature of science fiction. As Joanna Russ says in an article for *Science Fiction Studies*, "[S]cience is to science fiction . . . what medieval Christianity was to deliberately didactic medieval fiction." SF not only allegorizes science, but, "like medieval painting, addresses itself to the mind, not to the eye." Russ recognizes that this allegorical character in part produces SF's capacity for eliciting emotions of wonder and awe.<sup>13</sup>

*Neuromancer* is one of SF's most sublime allegories, though, like VPL's actuarial forest, it represents not science but the technologically driven information economy of global capitalism. Yet though *Neuromancer's* "real" world is a place of vicious corporations, violent mercenaries, and social dystopia, the allegorical realm within the text nonetheless becomes a locus of demonic agency, as the sentient godhead that emerges at the end of *Neuromancer* fragments into Count Zero's voodoo deities. This is the magic gap of allegory, for though cyberspace collects data and cash, its shapes conjure up alien logics, distant realms. With its infinite boundaries, its vast hierarchies of "corporate galaxies" and the "cold spiral arms" of military systems, its grids and buildings, cyberspace is more than a virtual database—like Dante's *Comedy*, it is a cosmos.



Earlier literary commentators used the term "allegorical machinery" to describe both the overdetermination of allegorical narrative and the fated mechanical nature of its agents. Computer interfaces can also be seen as allegorical machinery—both fuse (and confuse)

images with abstractions, tend toward baroque complexity, contain magical or hyperdimensional operations, and frequently represent their abstractions spatially. Like allegory, interfaces blend mimetic symbols (in the Mac's case, trash cans and folders) with magical symbols (a phoenix in a didactic alchemical engraving is no mere image, but like an icon in HyperCard, "opens" onto a particular operation or bit of information). And some in the avant-garde of computer interface design are developing "agents," programmed anthropomorphic functions that help the user manage information space. As computer interfaces become more robust, the Mac's desktop "metaphor" may open like some sigil-encrusted gateway onto a huge realm of allegory.

It is therefore no surprise that, when we look at one of the computer's earliest virtual spaces, we discover the allegorical mode in all its magical splendor. *Adventure* was a text-based fantasy game created by programmers on the mainframes of Stanford's AI lab in the 1970s. By typing simple commands, players could probe *Adventure's* underworld cartography, gather treasure and spells, solve puzzles, kill trolls. *Adventure* was similar to *Dungeons and Dragons*, an impressively virtual game that consists of little more than dice rolls, simple math, printed manuals, and the imaginations of the players interacting with a virtual map described by the "dungeon master." In *Adventure*, the computer was the dungeon master, greeting the player with this description:

YOU ARE STANDING AT THE END OF A ROAD BEFORE A SMALL BRICK BUILDING. AROUND YOU IS A FOREST. A SMALL STREAM FLOWS OUT OF THE BUILDING AND DOWN A GULLY.

This image is schematic but strangely potent, and it may remind us of another traveler, at the end of another road, about to begin another grand adventure:

When I had journeyed half our life's way,  
I found myself within a shadowed forest,  
for I had lost the path that does not stray.

So does Dante begin his descent into the underworld of the *Inferno*.

Dante's underworld and a computer game resonate because both inhabit the peculiar environment of coded space. As Fletcher notes,

allegory is "a fundamental process of encoding our speech."<sup>14</sup> Allegory's coded levels of meaning are not distinct from its surface; rather, the two levels interpenetrate each other. Neither reading is fully realized; both are held in an ambiguous tension that Fletcher believes creates the frequently enigmatic, surreal, and magical quality of the mode.

Dante's images compel us to tear through the surface imagery and unpack distinct meanings: historical personages, medieval theology, Italian politics. But the poetry, the phantasm, always comes back. Appropriately, when the Dartmouth Dante Project created a searchable on-line Dante database that linked six centuries of commentary with Dante's text, they embedded the tension between text and interpretation in cyberspace. Though the project was later discontinued, Dante became for a while a multidimensional cluster of poetry, information, and commentary, a coded space that, like the *Comedy* itself, was searched.<sup>15</sup>

Adventure's magical spaces also cloaked an underlying code, not just the puzzle that had to be cracked to pass to the next room, but the computer itself. For computers are nothing if not hierarchies of code, higher-level programming languages descending into the decidedly unnatural machine language of ones and zeros. Steven Levy writes in *Hackers*: "In a sense Adventure was a metaphor for computer programming itself—the deep recesses you explored in the Adventure world were akin to the basic, most obscure levels of the machine that you'd be travelling in when you hacked in assembly code."<sup>16</sup> This magical metaphor, or allegory, seemed to fit the computer like a glove, and continues to influence cyberspace. Adventure laid the way for countless fantasy games, so that today even an elementary-school computer spelling game like *Wizards* is organized around a magical model of powers, spells, and levels. Adventure also inspired the "wizards" and virtual cartographies of the MUDs, or "multi-user domains," that populate the Internet. And it helped conjure up Vernor Vinge's Other Plane, the only SF cyberspace cartography that rivals Gibson's.

In the novella *True Names*, Vinge describes the Other Plane as a virtual representation of "data space" accessed by game interfaces called Portals. The reigning metaphor is a magical world of "sprites, reincarnation, spells and castles," as well as Spenserian woods where errant knights easily lose their way. The hacker denizens of the Coven perform various pranks for fun and profit, and take on colorful handles like Mr. Slippery and Wiley J. Bastard; like Dungeons and Dragons players, they construct the imagery of their characters, most choosing to represent themselves as magicians and witches.

As Mr. Slippery's description of the path to the Coven makes clear, the Other Plane is a space of technoaology, where imagery is directly linked to abstract functions. "The correct path had the aspect of a narrow row of stones cutting through a gray-greenish swamp. . . . The subconscious knew what the stones represented, handled the chaining of routines from one information net to another, but it was the conscious mind of the skilled traveller that must make the decisions that could lead to the gates of the Coven."<sup>17</sup> At these gates, Mr. Slippery encounters the allegorical agent Alan, a subroutine represented as a chthonic elemental creature who tests Mr. Slippery's authenticity by trading spells and counterspells.

Unlike the hard lines of Gibson's cyberspace, which are as objectively apparent as video game imagery, the Other Plane requires that the traveler cooperate in the imaginative generation of the world.

You might think that to convey the full sense imagery of the swamp, some immense bandwidth would be necessary. . . . In fact . . . a typical Portal link was around fifty thousand baud, far narrower than even a flat video channel. Mr. Slippery could feel the damp seeping through his leather boots, could feel the sweat starting on his skin even in the cold air, but this was the response of Mr. Slippery's imagination and subconscious to the cues that were actually being presented through the Portal's electrodes.

This process of eliciting phantasms with a minimum of signals dovetails with VR designer and theorist Brenda Laurel's insistence on the positive role of ambiguity in computer interfaces. Arguing against a high-bandwidth overload, Laurel—who began her career as a fan-

tasy game designer—recognizes that one of the imagination's greatest powers is its ability to generate psychedelic perceptions with a minimum of sensory cues. Using our ability to see faces in rocks and clouds as one example, Laurel argues that there is a threshold of sensory ambiguity that boots up fantasy, a threshold that virtual interfaces should emulate.<sup>18</sup>

Mr. Slippery notes that "magic jargon was perhaps the closest fit" to this process; for Vinge, magic's manipulative power operates in the ambiguous gap between sensation and internal imagery. In *Eros and Magic in the Renaissance*, Ioan Couliano paraphrases Giordano Bruno: "Magic action occurs through indirect contact . . . through sounds and images which exert their power over the senses of sight and hearing. . . . Passing through the openings of the sense, they impress on the imagination certain mental states. . . ." <sup>19</sup> The magician would not only impress fantasies on other people, but on himself through his virtual memory art.

Some Coven members in *True Names* argue that their magic jargon is simply a more natural and convenient way for manipulating data-space than the "atomistic twentieth-century notions of data structures, programs, files, and communications protocols." This "naturalness" stems from the structure of magic, its artificial mnemonics, phantasmic manipulations, and allegorical conceptions. As Fletcher points out, modern science depends on a disjunction between the synthetic fantasies of the imagination and the rigor of analytic systemization, whereas allegory fuses these two modes.

The allegorical pressure on coding also dovetails with one of Vinge's central concerns: cryptography. On the Other Plane, power is not knowledge—power is code. When Mr. Slippery follows the Red Witch Erythrina as she opens up a castle's secret passages through cryptic gestures and spells, he enters a space of encryption. And when Mr. Slippery first accesses the Other Plane, he makes sure his encryption routines are clouding his trail. "Like most folks, honest citizens or warlocks, he had no trust for the government standard encryption routines, but preferred the schemes that had leaked out of academia—over NSA's petulant objections—during the last fifteen years." Vinge's cryptographic hunch (he was writing in 1980) is borne out in current cyberculture. While hackers have long ex-

plored restricted-access dungeons, and phone-phreaks have hoarded phone spells, cypherpunks have begun creating anonymous remaining systems that will ensure that all traffic is untraceable and all participants remain anonymous. As Vinge suggests, cyberspace's ultimate secret code is one's True Name, one's real human identity.

Though Vinge may not have realized it, magic spells are not mere metaphors for encryption schemes. Hermeticism is rife with secret codes and unnatural languages, most stemming from the complex numerological methods that Kabbalists used to decipher the esoteric messages they believed were buried in Jewish Scripture. Two of these methods for mystical exegesis should be mentioned: Gematria and Temurah. Temurah consisted of simple letter transposition according to a number of schemes, while Gematria took advantage of the strict numerological equivalents for each Hebrew letter. By replacing words with their numerical equivalents, one could discover esoteric correspondences (for example, the words for Serpent and Messiah both have the numerical equivalent of 358).<sup>20</sup>

No greater proof of the deep relationship between cryptography and magic exists than the *Stenographia* of Trithemius, the dreaded abbot-necromancer of Würzburg whose famous and immense monastic library was packed with heretical works on magic. Appropriately, the *Stenographia* is a bizarre, multivalent text. As was recognized by later scholars, the demonic incantations that fill the first two books of the work are nothing more than arduous encryption schemes, the name of the demon heading the text indicating which decipherment key to employ. As far as magic is concerned, the names of the demons and their invocations are meaningless.

But in the latter portion of the *Stenographia*, Trithemius describes a complex and recognizably coherent scheme of demonic magic in which the images of cosmic forces are etched in wax in order to capture and manipulate their energies. Thus the cryptography and the demonic magic cover for each other, producing a highly ambiguous and enigmatic coding space. And Trithemius directed his demonic codes toward a curious goal: long-distance telepathic communication. When properly directed, he claimed, his seals and spells invoked entities such as Saturn's angel Orphiel, who would create an astral network that delivered messages anywhere within twenty-four

hours, a guarantee worthy of Federal Express. Nor was Trithemius's astrological magic limited to communication alone—as D. P. Walker notes, “[I]t was also the means of acquiring universal knowledge, of everything that is happening in the world.”<sup>21</sup> Trithemius thus aimed his coded ethereal communications toward the grandest dream of the *Hermeticum*: to know everything instantaneously and thereby, presumably, to know God.

Returning to Vinge, we find that a similar hermetic expansion toward universal knowledge occurs in the climax of *True Names*, when the combined forces of Erythrina and Mr. Slippery battle the mysterious Mailman, an enigmatic and powerful entity who attempts a takeover of the world's dataspace (in the end, the Mailman proves to be a creature made of code, an out-of-control NSA self-protection program). During the battle, Mr. Slippery and Erythrina take over more and more data-processing facilities until they begin to drown. “To hear ten million simultaneous phone conversations, to see the continent's entire video output, should have been a white noise. Instead it was a tidal wave of detail rammed through the aperture of their minds.” Mr. Slippery figures out how to distribute his consciousness through the system until “the human that had been Mr. Slippery was an insect wandering in the cathedral his mind had become. . . . No sparrow could fall without his knowledge, via air traffic control; no check could be cashed without his noticing over the bank communication net.” Interestingly, as Mr. Slippery's consciousness expands toward totality, Vinge's imagery shifts from pagan magic to Christian figures of cathedrals and fallen sparrows.

After further battles, the Mailman's processors are destroyed, and the victorious duo gaze on Earth, serenely viewed on all frequencies. The babbling voices return as Mr. Slippery and Erythrina put human communications systems back on line. “Every ship in the seas, every aircraft now making for safe landing, every one of the loans, the payments, the meals of an entire race registered clearly on some part of his consciousness. . . . By the analogical rules of the covens, there was only one valid word for themselves in their present state: they were gods.”

When Shakespeare wrote *The Tempest*, he may have modeled Prospero on Dr. John Dee, the greatest English magus of the Elizabethan era. Scientist, secret agent, geographer, antiquarian, and court astrologer, Dee was the quintessential Renaissance man. Possessed of the largest library in England, he typified the hermetic pattern of information addiction, and his interests ranged from Euclid to navigation to Lull to mechanical toys, particularly machines that could simulate bird calls.

In *De Occulta Philosophia*, one of the most influential source texts for Renaissance magicians like Dee, Agrippa defines three different types of magic, “Natural, Mathematicall and Theologicall.” Natural magic held that stellar forces influenced nature, and that by manipulating the natural world, one could attract these influences. Mathematical magic—“mathesis”—grew from the Pythagorean mystical philosophy that number was God's hidden symbolic language of creation. By the time of the Renaissance, much mathematical magic was utilitarian—what we would recognize as “real” math. As John French notes, while a brilliant man like Dee recognized the distinct difference between these two modes of number, he absorbed both into his magical philosophy, so that cabalistic numerology and the gears that powered robot birds were both expressions of divinity's secret code.

However, it is Dee's more bizarre “Theologicall” attempts at angelic communication that interest me here. Agrippa emphasizes that theological or demonic magic—of which the *Stenographia* is a prime example—is the most difficult and dangerous kind of magic. Drawing heavily on the Kabbalah, the magus attempted to contact the powers residing in the supercelestial angelic hierarchies that existed beyond the elemental powers of the earth and the celestial zone of the zodiac. Invoking archangels, powers, and principalities led magicians toward divine wisdom, but it also exposed them to the deceptions of evil spirits. Adam McLean points out in his introduction to *A Treatise on Angel Magic* that most magicians were extremely concerned about distinguishing truthful angels from dissembling devils.<sup>22</sup>

*A True & Faithful Relation of what passed for many Years Between*



Dr. John Dee . . . and *Some Spirits* presents Dee as a pious man motivated by a Gnostic desire for revelation. Yet Dee was also the first to apply the cryptographic dimension of high—or “Theological”—magic to espionage.<sup>23</sup> As a secret agent of Elizabeth’s court (his code name was 007), according to Richard Deacon, Dee maintained a network of informants on the continent and collected a great deal of data concerning Spanish threats to England and discoveries in the New World. In 1692 Robert Hooke decoded a number of angelic names and conversations from *A True & Faithful Relation* and proclaimed the work an encrypted record of Dee’s secret missions. One angelic conversation that Dee sent to England from the Continent may well have described Spanish plans to burn the Forest of Dean.<sup>24</sup>

But like Trithemius, Dee’s taste for cryptography was fused with metaphysical quest. As Dee put it, he had “long been desirous to have help in philosophical studies through the company and information of the Angels of God.”<sup>25</sup> Dee accessed his information through a ludicrously complex form of spiritualist channeling. Briefly, he enlisted a rogue named Edward Kelley as his “scriber.” Kelley would stare into a crystal sphere, called the “shew-stone,” and describe visions and messages that Dee would record. The angels were not exactly interested in clarity—they communicated in “Enochian,” a unique language with its own alphabet and grammar, encompassing a complex directory of angels, Aethyrs, kings, seniors, and Calls. Enochian was laboriously dictated to Dee through complex grids called the *Liber logaeth*. Finally, the nineteen “Calls” that formed the heart of the system were communicated backward. In the end, Dee and Kelley channeled at least twenty-six books, most of which, according to Deacon, are “not only totally unintelligible, but do not seem to be related to any of the usual cabballistic or numerological systems.” Dee devoted himself to their decipherment, having been promised that if successful, he would “have as many powers subject to him as there [were] parts of the book.”

What to make of all this? As with all of the magic and Gnostic experiences I’ve mentioned, I turn over the question of what Dee and Kelley were “actually” doing to the notorious twentieth-century magus-trickster Aleister Crowley, who wrote of magical entities and powers: “It is immaterial whether they exist or not. By doing certain things, certain results follow.” What’s important here is the quali-

tative nature of the supercelestial realms, as well as the agents and coded operations at its interface. Because “Theological” magic conceptualizes the divine mind as a decidedly unnatural, hyperdimensional structure, its magical operations and representations try to fit that structure. Dee and Kelley’s Enochian system, as well as Bruno’s and Trithemius’s, is characterized in part simply by its vast hermetic complexity. These magical machines, at once rigorous and phantasmic, were created by projecting systematic techniques of numerology and cryptography into a kind of free space of mystical abstraction, which produced a treacherous density of names, numbers, hierarchies, correspondences, and functions. This complexity not only mirrored the immensity of divine wisdom, but amplified and strained the magician’s mind toward a divine change of state. In Dee’s case, the angelic communications embodied this information density in their indecipherability—as the angels told Dee, “. . . [T]herein is comprehended so many languages they are all spoken at once.”

On the one hand, the temptation to compare the representation of supercelestial realms with cyberspace is intellectually suspect because rational mathematics, network architectures, and programming codes are so technically distinct from the mystical mathematics, celestial architectures, and demonic codes of angel magic. But perhaps, from a qualitative perspective, complexity space is complexity space—any information system, when dense and rigorous enough, takes on a kind of self-organizational coherence that resonates with other systems of complexity. As computer visionary Ted Nelson writes concerning representations of hypertext: “Once we leave behind ‘two-dimensionality’ (virtual paper) and even ‘three-dimensionality’ (virtual stacks), we step off the edge into another world, into the representation of the *true structure and interconnectedness of information*. To represent this true structure, we need to indicate multidimensional connection and multiple connections between entities.”<sup>26</sup> This sense that there is a “true structure” of information is one of the most pervasive metaphysical myths of cyberspace.

Angel magic gives us a hermetic image not only of information space, but of its agents. Angels are immaterial beings composed of intelligent light; they have human form, yet are voiceless. Because they have no soul and are motivated by neither will nor passion,



angels, like allegorical agents, are “fated” to reproduce mechanically their mode of being. In *Allegory*, Fletcher points out the protoscientific function of the demon: “Coming from the term that means ‘to divide,’ *daemon* implies an endless series of divisions of all important aspects of the world into separate elements for study and control.”<sup>27</sup> Many magical texts consist of endless lists of these star-demons, their appearances, numbers, and powers, their hierarchies of Orbs and Aethyrs and offices. These agents mediate the complexity of supercelestial information. They are the original images of artificial intelligence—not the sentient AIs of SF, but the text-based expert systems, independent software objects, and audiovisual interface agents we are so keen to develop—passionless entities made of intelligent light.

As Manuel De Landa argues in *War in the Age of Intelligent Machines*, though there are many names for software objects that operate autonomously (actors, agents, demons), the term “demons” is perhaps the best because “they are not controlled by a master program or a central computer but are rather ‘invoked’ into action by changes in the environment.”<sup>28</sup> Like stellar demons, digital demons are at once independent and programmed (“fated”), operating autonomously yet responding automatically to certain cues with certain acts. As the ecologies of such event-driven demons increase in complexity, computers are able to react to the environment in an increasingly “lifelike” manner. De Landa claims that demons enable computers to respond far more interactively to human users and to function far more powerfully outside human control (the killer robot being a particularly terrifying example of the latter). Like their spiritual counterparts, software demons can both serve and subjugate.

Like John Dee, computer interface designers are more interested in conjuring demons that serve. Visionary designer Alan Kay suggests that in order for us to take advantage of the increasing complexity of computer processes, there must be a “qualitative jump” from the manipulation of tools to the management of agents, which Kay defines as “autonomous processes that can be successfully communicated with.” Such agents would “act as guide, as coach, and as amanuensis,” and could either be tabular or anthropomorphic. As an example, Kay describes a system that would monitor news and private messages in order to collate a private newspaper. Kay also emphasizes

that as agents are given more irrevocable power over information (the ability to regularly delete files, for example), the stakes are raised considerably.

At the most basic level the thing we most want to know about an agent is not how powerful it can be, but how trustable it is. In other words, the agent must be able to explain itself well so that we have confidence that it will be working on our behalf as a goal sharer rather than as a demented genie recently escaped from the *Arabian Nights*.<sup>29</sup>

All this puts Dee’s conversations in a strange new light. Dee, seeking their “company and information,” would invoke angels with an elaborate system of coded Calls. He spent much of his time interrogating these beings in order to make sure they were trustworthy, and not devils in disguise. In “The Directory,” a section of a late seventeenth-century occult manuscript recently published in *A Treatise on Angel Magic*, the author outlines a form of Dee’s interrogation process, noting that if the spirits disappear, or remain silent, there’s a problem. (In *True Names*, Mr. Slippery first suspects something nefarious about the Mailman when there is a long pause in the entity’s answers to Mr. Slippery’s questions.) In accessing angelic agents through the interface of coded Calls and “shew-stone glass,” magicians like Dee may have stumbled on the first Turing test—only rather than testing the ontological status of these entities, they tested their true names.



The magus’s highest aspiration was gnosis: divine knowledge, universal memory. But the Gnostic impulse that motivated Bruno’s and Dee’s exploratory proto-science can be found in far more purist or “pessimistic” forms, which seek a divine wisdom that absolutely transcends a dark and evil material world. The Gnostic emphasis on memory remains, but it shifts from the virtual encyclopedia to the trigger-signal that catalyzes anamnesis, the soul’s recollection of its celestial origins.

Ancient Gnosticism’s more dualistic cosmologies held that the world is not a glittering web of divine correspondences, but a trap ruled by false, ignorant gods—including the Jehovah of Genesis. The

astrological demons that shepherded the Renaissance magus were tyrants who ruled over the lower cosmic spheres that imprisoned man's soul. True divinity lies with the distant Alien God, of whom the only earthly traces are the "sparks" or "seeds" of divine light lying in the dark depths of the individual human soul. In this view, man's fall did not occur through his own sin, but through a structural error in the cosmos itself, an error man escapes only by directly receiving the mystical influx of gnosis, or "wisdom," which simultaneously awakens the spark within.

Gnosis is not just mystical transcendence; it is data. According to Valentinus, a sophisticated Gnostic, "What liberates us is the knowledge of who we were, what we became, where we were, whereinto we have been thrown, whereto we speed, wherefrom we are redeemed, what birth is and what rebirth."<sup>30</sup> Gnosis contains practical information as well: the "knowledge of the way" after death, the sacramental procedures, secret names, and magic formulas that enable the soul to break through the lower spheres under demiurgic control and mount to God.

Gnosis also comes in the form of information: a sudden blast of immediate data which is identical with the abrupt recognition that such information exists. In some sense, gnosis is information about information. As one Mandaeen text puts it: "One call comes and instructs about all calls."<sup>31</sup> Rather than being merely "heard," this incoming call is imagined as something almost substantial that enters the hearer, like the call described in the Twelfth Ode of Solomon: "And they were penetrated by the word and knew him that made it."<sup>32</sup> This substantial and almost animate quality of the word is by no means restricted to Gnosticism—as the Lord puts it in Isaiah 55:11, "So shall my word be that goeth forth out of my mouth: it shall not return unto me void, but it shall accomplish that which I please, and it shall prosper in the thing whereto I sent it."

In the beginning of the "Hymn of the Pearl," one of Gnosticism's most luminous allegories of redemption, the unnamed hero is told by his parents that he must journey to Egypt in order to retrieve a pearl guarded by a serpent. There he enters a tavern where he encounters a fellow "anointed one": "And I made him my confidante / with whom I shared my mission." The duo nervously discuss the frightening ways

of the Egyptians, which leads the hero to don an Egyptian cloak in order to disguise himself. "But somehow they learned / I was not their countryman, / and they dealt with me cunningly / and gave me their food to eat." Drugged, he falls into the sleep of ignorance and error, and forgets his identity and his mission.

Much later, the hero receives a letter from his father and mother, "sealed by the king with his right hand / against the evil ones, the children of Babel." Before being opened, the missive commands him to "awake and rise from your sleep / and hear the words of our letter":

At its voice and the sound of its rustling  
I awoke and rose from my sleep.  
I took it, kissed it,  
broke its seal and read.  
And the words written on my heart  
were in the letter for me to read.  
I remembered that I was a son of Kings  
and my free soul longed for its own kind.

The letter not only boots up "the words written on [his] heart," but provides the hero with magic information—the True Names of his father and mother—which he subsequently uses to charm the serpent. Having retrieved the pearl, he heads home.

On my way the letter that awakened me  
was lying on the road.  
And as it had awakened me with its voice  
So it guided me with its light;  
and it was written in Chinese silk,  
and shone before me in its own form.

Guided by the letter, the hero returns home. There he changes his clothes and puts on a stunning robe that "quiver[s] all over / with the movements of gnosis."<sup>33</sup> Suitably attired, he ascends to greet the king.

Though its mythic imagery concerns serpents, princes, and pearls, the hymn's deeper codes concern messages. The hero's information processing takes up far more lines than the main battle. Information is exchanged in the tavern, and this information is then overheard. A letter arrives, bearing multiple messages. The first message—"[H]ear

the words of our letter"—is delivered before the letter itself is opened, suggesting that Gnostic triggers have a dimension of *meta*-information—information about information. Like Alice's cake, or a talking mushroom, Gnostic information says "eat me."

But the letter boots up information already contained within the soul of our hero—Valentinus's recollection of true origins and true destiny. This interior spark thus functions like a radio transponder, which can receive and transmit signals, but lies dormant until it receives a specific signal that activates it. But while the call comes from out of the blue, the hero must also choose to "break the seal" of the letter—to break the code inscribed on the surface of things. And he must be prepared to find Gnostic information in the most marginal places—lying in the dust of the road, for instance.

Many Gnostic texts did not just tell tales of the informing gnosis, but sought to "quiver" with its "movements," to directly impart "the Voice which exists within a perfect intellect."<sup>34</sup> Some of these writings possess a peculiar power that lies less in their cosmological import than in their rhetoric of immediacy—an attempt to represent the unmediated presence of the Gnostic mind. No greater example of this intensity exists than "Thunder, the Perfect Mind," a fourth-century tractate that eludes scholarly classification but has strong Gnostic elements. The poem is delivered in first-person, and consists mostly of paradoxical statements of identity ("I am the whole and the holy one / I am the virgin and the wife," and so forth). At one point, the informing voice describes her own mode of information:

I am the voice whose sound is manifold  
and the word whose appearance is multiple.  
I am the utterance of my name.

Hear me, you hearers,  
and learn of my words, you who know me.  
I am the hearing that is attainable to everything;  
I am the speech that cannot be grasped.<sup>35</sup>

Here, the animate Logos seems to describe not its contents or forms, but its underlying nature, a luminous flux of information density, of manifold sounds and liquid speech. Yet for all the immediacy of

the "I am," an alien quality lingers, as if the speaker is both close to home, and far, far away.



In its obsession with simulacra and encoded messages, as well as its almost libertarian hatred of traditional authority and a corresponding emphasis on spiritual autonomy, Gnosticism anticipates cyberculture. Ihab Hassan has shown how the notion of direct Gnostic revelation is resurrected now that "communication itself is becoming increasingly immediate."<sup>36</sup> But while Hassan and a few SF writers have pursued this link, no one has plunged into information Gnosticism with such abandon as the brilliant SF writer Philip K. Dick. Though Gnosticism is only one dimension of Dick's dense and tangled oeuvre—only now beginning to receive the attention it deserves—the mythic mode lies at the heart of many of his themes and devices—"living" books, false worlds, divine invasions.

In the essay "Man, Android and Machine," Dick suggests that Gnostic information is both a space and a being. Taking up the popular Christian thinker Teilhard de Chardin's image of the noosphere—a bubble of human thought that envelops the earth like a virtual atmosphere—Dick suggests that something strange occurred when technology entered the picture:

... [T]he noosphere . . . no longer served as a mere passive repository of human information (the "Seas of Knowledge" which ancient Sumer believed in) but, due to the incredible surge of charge from our electronic signals and information-rich material therein, we have given it power to cross a vast threshold; we have, so to speak, resurrected what Philo and other ancients called the Logos. Information has, then, become alive.<sup>37</sup>

The whole encyclopedic space of thought, juiced up by technology, becomes the ultimate example of artificial life.

In *The Divine Invasion*, Dick creates an even richer theological image of living information space: a three-dimensional, color-coded biblical hologram.

The total structure of Scripture formed, then, a three-dimensional cosmos that could be viewed from any angle and its con-

tents read. According to the tilt of the axis of observation, different messages could be extracted. . . . If you learned how, you could gradually tilt the temporal axis, the axis of true depth, until successive layers were superimposed and a vertical message—a new message—could be read out. In this way you entered into a dialogue with Scripture; it became alive. It became a sentient organism that was never twice the same.<sup>38</sup>

In this image of hypertext heaven, Dick shows how a space of information density achieves an animate quality through the structure of an open-ended dialogue.

But “living information” was no mere metaphor within Dick’s brilliant though decidedly unstable mind, for in 1974, sitting at home in Orange County, he apparently experienced such a force. According to Dick’s later testimony, seeing an *ichthys*, or fish-shaped Christian icon, on a delivery woman’s necklace “triggered” the influx of a rational and benign mind: VALIS, or Vast Active Living Intelligence System. Among other things, VALIS—which Dick sometimes compares to a computer or an AI system—linked him telepathically to an early Christian living under Roman oppression and informed him (through a Beatles song on the radio) that his son Christopher had a potentially lethal health problem.

In our culture, we call individuals like Dick schizophrenic, but in the confines of his literary works, his apparent schizophrenia achieves an unparalleled oracular glow. After 1974, most of Dick’s work, both his novels and over two million words of tortured philosophical maunderings in his largely unpublished “Exegesis,” was a response to the VALIS experience, though Gnostic themes and structures are clearly latent in his earlier work. In VALIS, the greatest and strangest of these late works, he fleshes out his information mysticism in the “Tractates Cryptica Scriptura,” a twelve-page excerpt from his “Exegesis.”

In the “Tractates,” Dick maintains that our universe is a space of information, and the phenomenal world a hologram, “a hypostasis of the information” that we, as nodes in the true Mind, process. But humans have lost the ability to read this divine language, and both ourselves and our world are occluded. For Dick, the ancient demi-

urge is recast as the irrational “Empire”: Rome, the Nixon administration, the State as such. Dick did not emphasize the material or Satanic aspect of demiurgic powers, but rather their ability to create false worlds. In the introduction to *I Hope I Shall Arrive Soon*, a collection of late short stories, he writes that “we live in a society in which spurious realities are manufactured by the media, by governments, by big corporations, by religious groups, political groups—and the electronic hardware exists by which to deliver these pseudo-worlds right into the heads of the reader, the viewer, the listener.”<sup>39</sup> As demonstrated by the illusory and demonic nature of his constantly imploding fictional worlds, Dick transforms Gnostic pessimism into a skeptical weapon wielded from within the fathomless simulations of Baudrillardian hyperreality.

Just as the nameless hero of the “Hymn of the Pearl” found the Logos lying by the side of the road, VALIS penetrates the simulated world through the margins. The True God must mimic “sticks and trees and beer cans in gutters—he presumes to be trash discarded, debris no longer needed.” Dick says at the end of VALIS that “the symbols of the divine show up in our world initially at the trash stratum.” So, too, do the images and peripheral details of Dick’s fictions—circulating through the trash stratum of SF pulp—glow with a powerful allegorical density, and many narratives are propelled by the decoding of these clues. One of VALIS’s most fascinating chapters describes a scene in which the protagonist, Horselover Fat, and some friends see a trashy SF movie called *Valis* and then unpack its subliminal messages, their bizarre conclusions leading them to make contact with the filmmakers and the savior-figure, Sophia. For Dick, decoding is more than reading; it is being infected by code. VALIS is nothing less than a virus that “replicates itself—not through information or information—but as information.” Once triggered, it parasitically “crossbands” with human hosts, creating “homeoplasmates.”

Dick is not the only one to imagine information as a kind of virus (itself a quasi-living body of code). In addition to Burroughs’s famous phrase (“language is a virus”), there’s scientist Richard Dawkins’s understanding of *memes* as thoughts which, like genes, propagate and compete in the competitive environment of culture. In *The Selfish Gene*, Dawkins quotes N. K. Humphrey:

... [M]emes should be regarded as living structures, not just metaphorically but technically. When you plant a fertile meme in my mind you literally parasitize my brain, turning it into a vehicle for the meme's propagation in just the way that a virus may parasitize the genetic mechanism of a host cell. . . . [T]he meme for, say, "belief in life after death" is actually realized physically, millions of times over, as a structure in the nervous systems of individual men the world over.<sup>46</sup>

Memes have already become a somewhat trendy notion in cyberculture, but what is intriguing is Humphrey's insistence that they be conceived "not just metaphorically but technically." In Dick's fiction, metaphors are transformed into technical operations. Even more interesting is the meme Humphrey uses as an example. For of all the artifacts of human culture, it is the great memes themselves that perhaps come closest to eternal life. And one of the greatest of those is the one that claims that, just as memes survive in the minds of human hosts, so can human consciousness survive in the abstract space of the meme.

Information's final infection is apocalypse. As Hans Jonas points out, the Gnostic individual internalizes eschatology, radically modifying subjectivity itself into an alien immediacy that creates a simulacrum of the final days. So wherever you encounter the Gnostic mode, you're likely to find an apocalyptic trace. This millennialist infection has long been evident among evangelical Fundamentalists, but now it is spreading in more mutant forms throughout one of the most reviled and unexamined fringes of cyberculture: the New Age project.

Even if we characterize the New Age movement in its broadest sense—as an eclectic network of spiritualism, theosophy, therapy techniques, goddess myths, brain gadgetry, alternative medicine, hermetic wisdom, and hippie mysticism—incorporating it into cyberculture may strike some as extreme. Yet New Age elements are rife throughout the post-1960s Bay Area culture that laid the groundwork for much of what we call cyberculture. A psychedelic, do-it-yourself spirituality directly feeds the more utopian elements of this northern

California subculture of VR designers, computer artists, and computer programmers, whose forums include *The Whole Earth Review*, *Mondo 2000*, and the WELL (a Sausalito-based electronic bulletin board that serves as a colloquium for denizens of cyberculture). For many of these folks, computers are the latest and among the greatest tools available for the achievement of the Aquarian goal: the expansion of consciousness by whatever means necessary.

But the influence of the New Age movement on cyberculture extends beyond that of the psychedelic fringe. As Andrew Ross suggests when he calls the movement an "alternative scientific culture," New Agers are driven in part by a desire to propound an account of reality that both includes and transcends scientific method and technology. Many New Agers restlessly consume weird pop science in their quest for a new metaphysics, while more entrepreneurial Aquarians develop countless transformational technologies, in the literal and the metaphorical sense—brain machines, as well as self-improvement regimens like neuro-linguistic programming or Tony Robbins's "Personal Power" program. The pervasive (and often unrecognized) influence of New Age thought lies in the fact that these aesthetic, social, and philosophical transformations of science (and self) occur in a layperson's, middle-brow context. Ross argues that to ignore this "kinder, gentler science" while reveling in the hip alienation of cyberpunk or "avant-garde"—or even normative—scientific accounts is to perform a subtle kind of intellectual elitism. Meanwhile, the New Age movement grows.

In attempting to reprogram human subjectivity, many New Age practices unconsciously translate contemporary concerns about the formation and maintenance of identity into a scientific and technological milieu. For the more futuristic New Agers, the self is an information-processing entity that changes nature, depending on the information flows it receives and the various media to which it connects. This emphasis on communication flows stems in part from the New Age role as the religion of the Information Age. It also explains the crucial role played by one particular occult technique: channeling.

Little about the New Age is new, and channeling is no different. From the oracles at Delphi to the table-rapping of the nineteenth cen-

tury, spiritualism has long been the most immediate yet controlled mode of nonrational communication, at once technically structured and visionary. There is often a trace of SF in these practices: the angelic channeler John Dee believed that specially constructed mirrors could draw magical power from the sun and transmit messages and objects to distant stars and other worlds.<sup>41</sup> Contemporary channelers not only spiritualize information, but also the means of communication. Ross says that one of the curious aspects of New Age channeling is that, besides the messages themselves, New Agers celebrate channeling's "ability to resolve the technical problems of communication."<sup>42</sup>

Ross argues that this attitude reflects both mainstream Information Age ideology and the dominant scientific language that the New Age is in part attempting to displace. But beneath these forces, this emphasis on the technical dimension of channeling shifts the arena of enacted spiritual transformation from the interior of the soul to the interface, to the act of communication. All channeling could be said to proceed from this kind of info-gnosis. But it is when New Agers turn their "etheric antennae" toward the most distant sources—extraterrestrials and angelic beings—that the apocalyptic and science-fictional dimensions of info-Gnosticism emerge.

Written on a clunky manual typewriter in the 1970s by a rural New England carpenter named Ken Carey, the best-selling *Starseed Transmissions* is possibly the best and most seductive of the channeled New Age ET texts. Carey claims that the book's source was a series of transmissions from beings who embrace the language both of angelic hierarchies and of extraterrestrial frequency modulations; the text is delivered as the monologue of an alien angel. According to *Transmissions*, these entities are subtly penetrating our culture, attempting to wake us up to the imminent collapse of history, thought, and matter as we phase into the next millennium. The Information Age not only lays the digital web-work for what Carey's angels (and chaos theorists) call a "singularity," but it foreshadows the form of the next phase of existence: immaterial and luminous, at once infinitely complex and absorbed into a monad. In order to pass through our "metahistorical" moment, the aliens insist, we must cease identifying ourselves with the outmoded "programmed product(s) of human

culture." Restrained by something like *Star Trek's* Prime Directive from intervening in terrestrial history, the angels are nonetheless able to provide information concerning not only our situation, but also how we can intuitively achieve "direct contact with the source of all information."

At the very least, *Transmissions* is a solid addition to the tradition of SF Christianity that includes works by Olaf Stapledon, C. S. Lewis, and Philip K. Dick. Carey's book also dovetails with the apocalyptic visions of "the transcendental object at the end of history" found in psychedellic explorer Terence McKenna's witty, provocative, and hermetically inspired writings. Moreover, the angels' gospel of love adds a positive emotional dimension to the potentially stark unfolding of Gnostic information, as well as compensating for the dark paranoia about aliens that saturates both pulp SF and the UFO fringe. *Transmissions* suggests that the supreme Otherness of the extraterrestrial can be embraced at the interface—an act of acceptance that recalls an ancient Mandaean Gnostic fragment that tells how "Adam felt love for the Alien Man whose speech was alien and estranged from the world."<sup>43</sup>

But *Transmissions* is also a strangely compelling meditation on the modes of information. Carey writes in his introduction: "Regardless of one's opinion on the plausibility of extraterrestrial or angelic communion, it might be pointed out that the simple act of structuring information in this manner opens up communicative possibilities that are virtually non-existent in a conventional mode." This applies equally to Dee's conversations and to the assertion that because human languages are insufficient for the Word, having been "designed to facilitate commerce," the angels provide a new language: "Living Information." This information will not only provide instructions during the apocalypse, but will awaken memories of our own stellar origins, buried beneath the "spell of matter" induced when we chose to incarnate as human individuals. Carey's aliens are quite frank about how they are subliminally affecting human minds, sneakily spreading their infectious meta-information throughout terrestrial culture.

In this sense, Carey's transmissions are delivered more as a propagandistic virus or a set of trigger-signals than as a collection of

beliefs. Like some Gnostic texts, Carey's seeks a rhetoric of immediacy, of direct contact. This is most obvious in the pervasive use of the second-person, a technique that actively seeks both to invade and to reconfigure the reader's "you":

It is critical that you remember your origin and purpose. Your descent into Matter has reached its low point. If all that you identify with is not to be annihilated in entropic collapse, you must begin waking up.<sup>44</sup>

*Transmissions* attempts to create a flip-flop at the slippery edges of identity ("You are not the form you animate, but the force of animation itself"). By alternately addressing the "you" that is an ordinary human ego and the awakening "you" that Bruno would have called a star-demon, *Transmissions* would reconfigure the subject as an entity that is ultimately identical to the alien. This is no different in substance from an ancient fragment of the apocryphal "Gospel of Eve": "I am thou and thou art I, and where thou art I am, and in all things am I dispersed. And from wherever thou wilt thou gatherest me; but in gathering me thou gatherest thyself."<sup>45</sup>

In *The Postmodern Condition* Jean-François Lyotard claims that "the self . . . is always located at 'nodal points' of specific communications circuits. . . . No one, not even the least privileged among us, is ever entirely powerless over the messages that traverse and position him at the post of sender, addressee, or referent."<sup>46</sup> The New Age rhetoric of *The Starseed Transmissions* takes this notion a step further, suggesting that the circuits into which we tune actually produce the self and its experiences. But with its hand on the remote control of reality, the New Age subject tends to dissolve into the multidimensional information space that lurks behind all of our descriptions: cyberspace, Other Plane, memory palace, angelic hierarchy, SF schizophrenia. Carey's Alien God puts it this way: "This new information is not additional data that you will act upon. It is, rather, the very reality of your new nature. You are not to act upon my information in the future, you are to be my information yourselves."

## Notes

- 1 John French, *John Dee* (London, 1972), 71.
- 2 *Ibid.*, 76.
- 3 Frances Yates, *The Art of Memory* (Chicago, 1966), 95.
- 4 Nigel Pennick, *Magical Alphabets* (York Beach, 1992), 214.
- 5 Yates, *Art of Memory*, 224.
- 6 *Ibid.*; see also her *Giordano Bruno and the Hermetic Tradition* (Chicago, 1964).
- 7 Quoted in Yates, *Art of Memory*, 47.
- 8 William Gibson, *Neuromancer* (New York, 1984), 51.
- 9 William Gibson, *Mona Lisa Overdrive* (New York, 1988), 13.
- 10 Adolf Katzellenbogen, *Allegories of the Virtues and Vices in Medieval Art* (London, 1939), 67.
- 11 Samuel Taylor Coleridge, *Miscellaneous Criticism*, ed. T. M. Raysor (London, 1936), 36.
- 12 Angus Fletcher, *Allegory* (Ithaca, 1964), 180.
- 13 Joanna Russ, "Towards an Aesthetic of Science Fiction," *Science Fiction Studies* 6 (July 1975): 113-16.
- 14 Fletcher, *Allegory*, 3.
- 15 See my "Cyberlibraries," *Lingua Franca* (February-March 1992): 46-51.
- 16 Steven Levy, *Hackers* (New York, 1984), 141.
- 17 Vernor Vinge, *True Names*, in collection of the same title (New York, 1987), 60.
- 18 See Brenda Laurel, *Computers as Theater* (Menlo Park, 1991).
- 19 Ioan Couliano, *Eros and Magic in the Renaissance*, trans. Margaret Cook (Chicago, 1987), 91.
- 20 See, for example, Israel Regardie, *A Garden of Pomegranates* (St. Paul, 1985), 106-34.
- 21 D. P. Walker, *Spiritual and Demonic Magic from Ficino to Campanella* (London, 1958), 89.
- 22 *A Treatise on Angel Magic*, ed. Adam McLean (Grand Rapids, 1989).
- 23 Richard Deacon, *John Dee* (London, 1968), 3.
- 24 See Deacon, *John Dee*, 1-25, for a convincing argument on this point.
- 25 Quoted in Deacon, *John Dee*, 142.
- 26 Theodor Holm Nelson, "The Right Way to Think about Software Design," in *The Art of Human-Computer Interface*, ed. Brenda Laurel (Menlo Park, 1990), 241.
- 27 Fletcher, *Allegory*, 59.
- 28 Manuel De Landa, *War in the Age of Intelligent Machines* (Cambridge, 1991), 120.
- 29 Alan Kay, "User Interface: A Personal View," in Laurel, ed., *Human-Computer Interface*, 206.
- 30 See Hans Jonas, *The Gnostic Religion* (Boston, 1963), 45.
- 31 Quoted in Jonas, *Gnostic Religion*, 77.
- 32 See *The Other Bible*, ed. Willis Barnstone (New York, 1984), 275.
- 33 *Ibid.*, 308-13.



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## Agrippa, or, The Apocalyptic Book

- 34 *Ibid.*, 592.  
 35 *Ibid.*, 594-99.  
 36 Ihab Hassan, *Paracriticism* (Urbana, 1975), 135.  
 37 Philip K. Dick, "Man, Android and Machine," in *Science Fiction at Large*, ed. Peter Nicholls (New York, 1976), 216.  
 38 Philip K. Dick, *The Divine Invasion* (New York, 1981), 70-71.  
 39 Philip K. Dick, "Introduction: How to Build a Universe That Doesn't Fall Apart Two Days Later," in *I Hope I Shall Arrive Soon* (New York, 1985), 4.  
 40 Richard Dawkins, *The Selfish Gene* (Oxford, 1976), 192.  
 41 Deacon, *John Dee*, 37.  
 42 Andrew Ross, *Strange Weather* (New York, 1991), 37.  
 43 Quoted in Jonas, *Gnostic Religion*, 89.  
 44 Ken Carey, *The Starseed Transmissions* (New York, 1982), 35.  
 45 Quoted in Jonas, *Gnostic Religion*, 60.  
 46 Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Minneapolis, 1984), 15.

All techniques meant to unleash forces are techniques of disappearance.  
 —Paul Virilio

**B**lack box recovered from some unspecified disaster, the massive case opens to reveal the textures of decay and age. Yellowed newspaper, rusty honeycombing, fog-colored cement enveloping a pale book. On the book's cover, a burned-in title: *Agrippa (A Book of the Dead)*. Within it, page after page printed with cryptic letters.

TGTGG  
 CCATA  
 AATAT  
 TACGA  
 GTTGG

These are the combinatory possibilities of genetic codes, as re-coded by scientists. The pages are singed at their edges; more fragments of old newspaper are interspersed. And at intervals, engravings by New York artist Dennis Ashbaugh reproduce the commercial

*The South Atlantic Quarterly* 92:4, Fall 1993.  
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 CCC 0038-2876/93/\$1.50.