

# **The Priests of Cyborg**

**by Peter C. Reynolds**

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As Christianity becomes less influential in the national culture of the United States, its role is being filled by a materialist vision of the afterlife expressed in the imagery of science and technology—what I call *cyborg religion*.<sup>1</sup> Cyborg religion references the quantum theory, molecular biology, and computer models of the brain, but it is a radical departure from conventional science. Where science has traditionally been hostile to religious concepts, dismissing them as insufficiently empirical, cyborg religion offers its believers a comprehensive cosmology and personal eschatology couched in the language of scientific materialism. In cyborg religion, the human body is star dust, created in the Big Bang, and the dead will someday be regenerated from a portion of their frozen remains, just as their personalities will be promulgated through outer space as immortal waves of radiant energy.<sup>2</sup>

The premises of cyborg religion are unambiguously expressed in the cryogenics movement. The cryogenic procedure consists of severing the head from the body and freezing the former in a vat of liquid nitrogen, where it is to be kept, for centuries if need be, until science finds a cure for death [sidebar, below]. Although often dismissed by rationalist and Christian critics alike as the sort cultural frivolity one finds in California, the cryogenic fusion of an afterlife with high-tech engineering resonates to the philosophical premises of millions of educated people, and it is a logical extrapolation of the modern

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<sup>1</sup>. “Cyborg” is a contraction of “CYBERnetic ORGANism”: science fiction jargon for a humanoid creature, some of whose organs have been replaced by engineered parts. It is a popular (and noncontroversial) theme in the contemporary American mass media, e.g., Stark, D. E. 1990. “Biocybernetics: The merging of man and machine.” *High Technology Careers*, Oct./Nov.: 6-9; Elmer-Dewitt, Philip, et al. 1993. “Cyberpunk!” *Time*: 58-65.

<sup>2</sup>. Larimer, Tim. 1990. “The next ice age may be starting here in Silicon Valley as techies turn to cryonics so they can download their intellects in the distant future.” *San Jose Mercury News*, December 9, *West magazine*: 17-26.

scientific definition of a human person. In any university course in biology one will learn that the human personality is simply a pattern of information in the brain, analogous to the programs in a digital computer, and that the body itself is simply a readout of genetic information stored in a single cell, so no great imagination is needed to postulate a day when we will beam backup copies of ourselves to the furthest reaches of outer space or down-load our psyches to androids. Although cryogenicists are few in number, the basic premise of their belief—that a human being is a disembodied brain—is canonical 20th-century science, presented in the textbooks and taught in the universities. Like a seismographic tracing that gives visible expression to continental forces many miles below the surface, the cryogenically suspended body is the funeral ritual of a new and potentially powerful religion.<sup>3</sup>

**Tumor victim sues to have his head preserved. He hopes freezing will give science time to find a cure.**

T\_ D\_, 46, of Sunnyvale files his lawsuit Monday in Santa Barbara Superior Court. It says he wants his head “cryonically suspended” in hopes that scientists will discover a way to attach it to a healthy body and cure his brain disorder. Cryonic suspension is an experimental procedure in which all or part of a person’s body is preserved at minus-320 degrees Fahrenheit. To date, the procedure has been performed only after a cryonics patient has died of natural causes. D\_ wants to die before the tumor significantly damages his brain. His request, if carried out, would amount to suicide. ... If he wins his suit, D\_ would be anesthetized and placed on a heart-lung machine, which would pump blood through his body while his temperature was reduced. His blood would be replaced with chemicals to protect his cells from freezer damage. D\_’s head would be surgically removed at the end of the operation. His head would then be placed in a Thermos-like device and maintained at a temperature of minus-320 degrees Fahrenheit...

**An example of technocratic eschatology.**

*Note the equation of the brain with the body and the person with the brain. Reprinted with the permission of The Orange County Register, © 1990 The Orange County Register<sup>4</sup>*

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<sup>3</sup> Many contemporary religious sects inspired by science, including cryogenics, are described by Ed Regis, *Great Mambo Chicken and the Transhuman Condition: Science Slightly Over the Edge* (Reading, MA: Addison-Wesley Publishing Company, 1990).

<sup>4</sup> Robbins, Gary. 1990. “Tumor victim sues to have his head preserved: he hopes freezing will give science time to find a cure.” Reprinted in the *San Francisco Examiner*, May 2.

### **From Scientific Skepticism to Technocratic Faith**

This technocratic vision of immortality, far from being intellectually peripheral, is promulgated in the United States by many artists, scientists, medical researchers, and “serious” scholars.<sup>5</sup> For example, O. B. Hardison, University Professor at Georgetown University, dismisses the human body as an obsolete, carbon-based life form tied to the planet earth, arguing that true human destiny lies in the creation and propagation of silicon-based analogs of human beings, such as robots and computers. These “silicon life forms” will not only be superior to people in every way, but, in his own words, “silicon life will be immortal. The farthest reaches of space will be accessible to it. For silicon beings, 100,000 light-years will be as a day’s journey on earth, or, if they wish, a refreshing sleep from which, when the sensors show the journey is over, they will awaken with no sense of passage of time or —what is the same thing— with visions ‘Of what is past, or passing, or to come.’”<sup>6</sup>

In *Engines of Creation*, K. Eric Drexler proposes to insert “nanomachines” (mechanisms engineered on a molecular scale) into human biological cells to keep them working efficiently, so human beings can conquer outer space and live forever.<sup>7</sup> In a compendium of supposedly scientifically validated predictions about life in the 21st century, futurologists Cetron and Davies tell us that “for more than thirty years a dedicated band of researchers has been trying to figure out why we grow old and die—and how to defeat the process.” Immortality, the authors admit, has been slow in coming, but “if this field received even a small fraction of the money that, say, cancer research does, it would be possible to make rapid progress in answering these most basic questions.”<sup>8</sup>

A related scientific endeavor, “artificial life,” is being vigorously pursued in

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<sup>5</sup> As I show in my recent book, *Stealing Fire: The Atomic Bomb as Symbolic Body* (Palo Alto, CA: Iconic Anthropology Press, 1991), technocratic religion is conveyed in science fiction, documentaries, and scientific popularizations—but hardly ever in the text of academic journals, which remain scrupulously technical. However, analysis by anthropologists and semioticians of the *imagery* found in scientific textbooks supports the concept of a suprascientific ideology that determines research priorities. See Martin, Emily, *The Woman in the Body: A Cultural Analysis of Reproduction* (Boston: Beacon Press, 1987).

<sup>6</sup> Hardison, O. B., Jr., *Disappearing Through the Skylight: Culture and Technology in the Twentieth Century* (New York: Viking Penguin, 1989), p. 348. If pressed, Hardison may claim that his book, far from *asserting* this metaphysics, is merely an extended ironic reference to postmodernist propositions.

<sup>7</sup> Drexler, K. Eric, *Engines of Creation* (Garden City, NY: Anchor Press/ Doubleday, 1986).

American government laboratories such as Los Alamos. In this program, biological processes are first simulated on computers, then replicated as synthetic chemical reactions, in order to develop new forms of life that are indestructible and “outside” of nature.

Not surprisingly, the boundary between science fantasy and science fact is becoming increasingly difficult to draw, as is that between scientific theory and religious imagery. From the titles of popular books on modern biology (*Genesis*, *The Eighth Day of Creation*), one would think they were discussing Christian theology; and these religious and mythic allusions are not the distortions of “popularizers” but are chartered at the highest level of the scientific establishment. Francis Crick, for example, co-creator of the Watson-Crick model of DNA, tells us in *Life Itself: Its Origin and Nature*, that “life here was seeded by microorganisms sent on some form of spaceship by an advanced civilization.”<sup>9</sup>

Cryogenic suspension, reverse geriatrics, and artificial life are all metaphorical uses of scientific facts to make a belief in an afterlife more credible to people who have been taught to see science as the sole source of truth. Like traditional eschatology, cyborg religion is a matter of faith. Although brain waves are physically demonstrable phenomena, it goes well beyond empiricism to assert that they can be preserved after death and used to regenerate someone’s body and personality. Historically, classical science has hitherto been an agent of modernism, allied with skepticism and irreligion; and classic science fiction has played a complementary role, reducing gods to visiting aliens and simulating miracles with futuristic technology. But in cyborg works such as Spielberg’s *Close Encounters of the Third Kind*, the imagery of science and the narratives of science fiction are fused into high-tech vehicles of transcendence, and alien life forms are elevated to gods with the key to immortality. No wonder that one anthologist of science fiction wants to eject Spielberg’s movie from the sci-fi canon because of its overtly “religious overtones.”<sup>10</sup>

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<sup>8</sup>. Cetron, Marvin, and Owen Davies, *American Renaissance: Our Life at the Turn of the 21st Century* (New York: St. Martin's Press, 1989), p. 160.

<sup>9</sup>. Crick, Francis, *Life Itself: Its Origin and Nature*. (New York: Simon & Schuster, 1981), p. 141

<sup>10</sup>. Searles, Baird, *Films of Science Fiction and Fantasy* (New York: Harry N. Abrams, 1988).

### The Priests of Cyborg

In cyborg religion, science and technology are not just the means to a better light-bulb but vehicles of personal and collective immortality, and this ideology was institutionalized in the early 1940's with the development of the atomic bomb. In conventional recounting of this period, the atomic bomb is presented as a spin-off from basic research in atomic physics, but the Manhattan Project was as much a ritual process as a technical one. As I show in my book, *Stealing Fire: The Atomic Bomb as Symbolic Body*, two of the major technical innovations of World War II, the atomic bomb and penicillin, are more easily explained as spin-offs of cyborg religion than as logical developments from the facts and theories of "pure" science.<sup>11</sup> Although physical techniques are essential to constructing nuclear weapons, the idea for an atomic bomb historically *precedes* the discoveries of atomic fission and the nuclear chain reaction that supposedly brought it about,<sup>12</sup> and the term "atomic bomb" itself was introduced before the First World War, in literature, not science, in a book by H. G. Wells.<sup>13</sup>

The concept of cyborg religion explains many aspects of the Manhattan Project that are otherwise inexplicable. For example, J. Robert Oppenheimer named the first atomic bomb test "Trinity," an unequivocally Christian reference that deviates so much from normal scientific naming practices that a minor scholarly industry has grown up to explicate his reasoning. Why not name it the Galileo test or the Jupiter shot? Also, Oppenheimer supposedly quoted a line from the Bagavad-Gita during the first atomic blast: "I am become death the destroyer of worlds."<sup>14</sup> Why does a scientist upon viewing the successful culmination of a technical project feel compelled to equate his creation with God? In journalistic accounts of the Manhattan Project written at the time, the religious allusions are even more explicit. William L. Lawrence, science editor for the *New York Times*, was the only journalist allowed to witness the Trinity test, and in his first published accounts, he gives the atomic bomb a theological spin, claiming an experience akin to the supernatural and comparing the blast to the Second Coming of Christ.<sup>15</sup>

The equation of the atomic bomb with spiritual power, however remote it may

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<sup>11.</sup> Reynolds, *op. cit.*, chapter 5.

<sup>12.</sup> The pre-scientific origin of atomic imagery is documented by Weart, Spencer R., *Nuclear Fear: A History of Images* (Cambridge, MA, and London: Harvard University Press, 1988).

<sup>13.</sup> Wells, H. G., *The World Set Free* (London: The Hogarth Press, 1988), First published 1914.

<sup>14.</sup> As I document in *Stealing Fire*, p. 177, Oppenheimer probably did *not* say this when the bomb went off. The story is part of the mystification.

seem from the arid mechanics of nuclear physics, has been part of cyborg religion since its inception. It has long been known to historians of science that all of the major features of the atomic age, from the splitting of the atom to the new world order, were first broached decades earlier in H. G. Wells's science fiction novel *The World Set Free*, published in 1914.<sup>16</sup> To sci-fi buffs, this proves Wells's prophetic gifts, but in *Stealing Fire*, I present an alternative interpretation, namely, that the atomic age follows Wells's text so closely because it was created by technocrats who adopted his stages of history as their own. Wells created the ideological charter for the atomic age, and the atomic scientists carried it out. Leo Szilard, the physicist credited with prompting Einstein to write the letter to Roosevelt that launched the Manhattan Project, attributed his own enthusiasm for atomic bombs to a reading of Wells's book. Moreover, Wells's tracts on science as the heir to God were the schoolboy readings of choice for two generations of budding skeptics and rationalists.

Significantly, in Wells's cosmic drama, the atomic age is merely a first step to a far more grandiose vision: a worldwide atheistic religion modeled on Christianity. In this spiritualized post-atomic world, even physics itself is passé, for the temporal power of the new religion is based on a vastly improved science of genetics. At a gathering of disciples on a mountain in Tibet, the fictional founder of Christianity's successor, the Russian refugee Marcus Karenin, tells his female acolytes how genetics will eliminate sexual differences: "'You see,' cried Karenin, turning a laughing face to Rachel and Edith, 'while we have been theorising about men and women, here is science getting the power to end that dispute forever. If woman is too much for us, we'll reduce her to a minority... These old bodies, these old animal limitations, all this earthly inheritance of gross inevitabilities, falls from the spirit of man like the shrivelled cocoon from an imago...'"<sup>17</sup>

In science as in science fiction, the techniques that culminated in the atomic bomb were also used to create a bigger and better genetics.<sup>18</sup> In 1933, a physicist at the Rockefeller Foundation, Warren Weaver, coined the term "molecular biology"

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<sup>15</sup>. These articles are reprinted in Laurence, William L., *Men and Atoms: The Discovery, the Uses, and the Future of Atomic Energy* (New York: Simon and Schuster, 1959).

<sup>16</sup>. Wells, op. cit.

<sup>17</sup>. Wells, op. cit., pp. 303-304. The butterfly metaphor is a favorite of technocratic eschatologists. Hardison (op cit., p. 335) uses it too.

<sup>18</sup>. Jonas, Gerald, *The Circuit Riders: Rockefeller Money and the Rise of Modern Science* (New York and London: W. W. Norton and Company, 1989).

for the application of physics to the science of biology, and he began channeling research money into this endeavor, holding out to the board of trustees the prospect of “breeding superior men.” In effect, molecular biology jettisoned the public political pronouncements of the eugenics movement<sup>19</sup> while perpetuating its premises, practices, and research objectives. During the 1930’s and 1940’s with selective breeding once again intellectually respectable, many scientists moved back and forth between radiation and microbes, as if atomic bombs and genetic research were aspects of a single project. The physicist Schrödinger fired the starting gun with his lectures *What is Life?* E. O. Lawrence set up an office to distribute radioactive isotopes to medical facilities. H. J. Muller used radiation sources to induce mutations in genes. Szilard left the Manhattan Project to study the genetics of viruses.

By the late 1970’s, the priests of cyborg were confident enough in their own power to make the religious agenda of human genetics and bio-engineering completely explicit. For example, E. O. Wilson, a professor of biology at Harvard University and the founder of sociobiology, writes in his book *On Human Nature* (1978): “Like the mythical giant Antaeus who drew energy from his mother, the earth, religion cannot be defeated by those who merely cast it down. The spiritual weakness of scientific naturalism is due to the fact that it has no such primal source of power...because the evolutionary epic denies immortality to the individual...” “Does a way exist,” he asks rhetorically, “to divert the power of religion into the great new enterprise [genetic biology] that lays bare the sources of that power?”<sup>20</sup>

### **Beyond Women: State-supported Alternatives to Reproduction**

Once the intrinsically religious nature of much modern “scientific” culture is recognized, it becomes clear that many of the techniques presented in the popular press as examples of scientific discovery and technological progress are better explained as spin-offs of cyborg religion.<sup>21</sup> In the United States, for example, a whole industry is at work developing a new and “higher” form of reproduction, “uncontaminated” by sex, that is implemented through sperm banks, artificial insemination, in vitro fertilization, cloning, implantation of embryos, contract mothers, and artificial wombs.<sup>22</sup> Although these new technologies of reproduction are invariably presented in terms of “cures” for genetic diseases and infertility, Gena Corea,

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<sup>19</sup>. Kevles, Daniel J. *In the Name of Eugenics: Genetics and the Uses of Human Heredity* (New York: Alfred A. Knopf, 1985).

<sup>20</sup>. Wilson, E. O., *On Human Nature* (Cambridge, MA: Harvard University Press, 1978), pp. 192-193. Wilson has since gone on to found a New Age journal, *Zygon*, that “explores the relationship” between “science” and “religion.”



in *The Mother Machine*, shows through extensive interviews that their development has more to do with the misogynist sentiments of their creators than with humanitarian and medical concerns.

Anthropological research shows that much of what the technocracy presents as “scientific technique” is more accurately interpreted as “religious ritual.” Robbie Davis-Floyd, for example, in *Birth as an American Rite of Passage*, published recently by the University of California Press, interprets many modern hospital procedures as ritual acts that function more to display the technocracy’s image of women than to facilitate the health of the mother; and she shows by means of interviews with pregnant women that the concept of birth as a disease is now accepted as right and natural by many American women themselves.<sup>23</sup>

In cyborg religion, the human body is a flawed chassis that needs to be replaced; and natural reproduction, with its messy blood and mucous, is considered part of our “primitive” animal past. Therefore, “spiritual” progress requires the literal transformation of the human body into pure and immortal celestial light by means of science and technology. This imagery is exemplified in many contemporary American films.<sup>24</sup>

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<sup>21</sup>. Postman, Neil, *Technopoly: The Surrender of Culture to Technology* (New York: Alfred A. Knopf, 1992). Monica M. Migliorino captures the pseudo-spirituality of much bio-engineering in her title: “Miracle babies,” *Homiletic and Pastoral Review*. Dec. (1984): 16-18. But other theologians, even when concerned about its dehumanizing effects, often take its humanitarian claims and scientific neutrality at face value, e.g. DeMarco, Donald, “Genetic engineering and the future of man,” *Homiletic & Pastoral Review*. Nov. (1983): 53-60.

<sup>22</sup>. Corea, Gena, *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs* (New York: Harper & Row, 1985). See also Rothman, Barbara Katz, *Recreating Motherhood: Ideology and Technology in a Patriarchal Society* (New York and London: W. W. Norton & Co., 1989).

<sup>23</sup>. Davis-Floyd, Robbie E., “The technological model of birth,” *Journal of American Folklore*, October-December (1987): 163-170; Davis-Floyd, Robbie E., *Birth as an American Rite of Passage* (Berkeley: University of California Press, 1993).

<sup>24</sup>. For anthropological analysis of contemporary body imagery, see the book by Emily Martin, *The Woman in the Body: A Cultural Analysis of Reproduction*, as well as Chapter 2 of Reynolds’s *Stealing Fire*. See the movies *The Andromeda Strain* (1971) and *Terminal Man* (1974) for powerful visualizations of the purity and pollution rituals of modern medicine.

### Judeo-Christianity as Raw Material

In *Star Wars* (1977), one of the most profitable movies ever made, biological bodies, both male and female, are associated with contamination and pollution; and the most “human” characters in the trilogy in terms of their motivations and feelings are either quasi-disembodied spirits like Ben Kenobi or full-fledged machines like C-3PO and R2-D2. Conversely, “spirituality” is portrayed as disembodied mental capacities, such as, psychokinesis, telepathy, and clairvoyance, as when Yoda raises a spaceship from the swamp by the power of the mind alone.<sup>25</sup> Not surprisingly, George Lucas, the creator of *Star Wars*, had a consciously religious agenda; as he told one interviewer: “I began to distill the essence of all religions into what I thought was the basic idea common to all religions and common to primitive thinking.”<sup>26</sup>

In Steven Spielberg’s *Close Encounters of the Third Kind*,<sup>27</sup> released the same year (1977), technologically advanced aliens from outer space visit a remote part of the United States in a huge spaceship awash in light and mandalas. A handful of cognoscenti and high-ranking space scientists receive premonitions of the visit, and they travel to Devil’s Tower, Wyoming, to witness the ship’s descent to earth. As the hatch opens, a squadron of airmen who disappeared more than two decades before file out of the spaceship, unharmed and not a day older. The fact of immortality established (by Einstein’s theory of relativity!), the handful of seers, their faces glowing with religious fervor, climb on board to take their places.

Other films with eschatological and religious themes followed in rapid succession.<sup>28</sup> In *Star Trek: The Wrath of Khan* (1982), the plot revolves around the political control of the Genesis Project, a scientific procedure for creating life out of nothing on barren planets. In *Dune* (1984), a priestess with “control of bloodlines” predicts the coming of a messiah who will lead the oppressed people to freedom. Once

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<sup>25.</sup> *Star Wars. Episode IV: A New Beginning*. (Directed by George Lucas, produced by Twentieth Century Fox, 1977); *The Empire Strikes Back* (Lucasfilm and Twentieth Century Fox, 1980); *Star Wars: The Return of the Jedi* (Lucasfilm and Twentieth Century Fox, 1983).

<sup>26.</sup> Arnold, Alan, *Once Upon a Galaxy: A Journal of the Making of The Empire Strikes Back* (New York: Ballantine Books, 1980), p. 227.

<sup>27.</sup> *Close Encounters of the Third Kind* (Written and directed by Steven Spielberg, Columbia Pictures, 1977).

<sup>28.</sup> *Star Trek: The Wrath of Khan* (1982); *Dune* (Universal Pictures, 1984); *Terminator Two: Judgement Day* (Pacific Western, 1991); *The Rapture* (New Line Cinema, 1991); *Batman Returns* (Warner Brothers, 1992); *Alien 3* (Twentieth Century Fox, 1992);

anointed, the messiah launches a pre-emptive nuclear strike against the evil empire and seizes control of a mysterious elixir of life. In *Terminator 2* (1992), a woman who is destined to give birth to the messiah is imprisoned in an insane asylum, and Arnold Schwarzenegger, an android programmed to kill, comes to earth from the future to kill her enemies and be a father to her boy. In *Batman Returns* (1992), the story of Moses in the bulrushes is recast as the birth of the evil Penguin, a greedy and genetically deformed criminal.<sup>29</sup> In *Alien 3* (1992), monasticism and genetics, already conflated in the popular mind by the origin myth of Gregor Mendel and his peapods,<sup>30</sup> is given a more sinister spin. In this film, the action takes place on a prison planet inhabited by fanatical Christian “monks” who also happen to be violent XYY-chromosome mutants.

Although movie critic Michael Medved has argued that “religion bashing” is becoming a predominant theme in contemporary American cinema,<sup>31</sup> his critique implies that Hollywood is simply opposed to “traditional values,” whereas the sci-fi films of the past two decades indicate that Hollywood is expressing the values of cyborg religion, a postmodern industrial process in which traditional religion, epitomized by Catholicism, is first condemned as *spiritually* inadequate, and then *replaced*—not by science—but by an ideology of purification and immortality implemented through genetic engineering.<sup>32</sup> The cumulative effect of this process, as shown in Table I, is a silent but pervasive replacement of Judeo-Christian symbols and beliefs by mass-media images that simulate the external form of traditional religion but repudiate its moral and theistic core.

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<sup>29</sup>. Significantly, the anti-Semitic aspects of this scene have been recognized by some critics, although the larger issue of the reinterpretation of Judeo-Christian mythology has not: Roiphe, Rebecca and Daniel Cooper. 1992. “Batman and the Jewish question,” *New York Times*, July 2: A17.

<sup>30</sup>. In a recent feature article in *Newsweek* the “science of genetics” is represented by a picture of Mendel in monk’s garb, his crucifix replaced by a pair of crossed peapods.

<sup>31</sup>. Medved, Michael, *Hollywood Vs. America: Popular Culture and the War on Traditional Values* (New York: Collins/Zondervan, 1992). For reaction, see: Scheinin, Richard. 1993. “Film critic Michael Medved accuses Hollywood of religion bashing no matter how much it costs.” *San Jose Mercury News*, Feb. 20, pp. 1C, 11C; Wall, James M. 1993. “Films with a bad attitude,” *Christian Century*, Jan. 6-13: 3-4.

<sup>32</sup>. As Goethals argues, modern American mass media constitute a civic religion, and Romanyshyn shows that modern technology in general is a collective dream of reincarnation: Goethals, Gregor T., *The Electronic Golden Calf: Images, Religion, and the Making of Meaning* (Cambridge, MA: Cowley Publications, 1990); Romanyshyn, Robert D., *Technology as Symptom and Dream* (London and New York: Routledge, 1989), especially p. 10.

### National Spirituality

The contemporary American mix of reproductive technologies, pseudo-scientific theories of spiritual transformation, and cinematic swirls of mythic imagery bears a disturbing resemblance to the formative period of European fascism in the decade after the First World War. Although American media like to caricature fascists as goose-stepping anti-Semites, the Nazi Party did not come to power by promising the Germans mass murder and a disastrous war. Rather, as historians such as Mayer and Theweleit have shown, the Nazis came to power through the skillful manipulation of symbols of transcendence and renewal, expressed primarily through *medical* metaphors.<sup>33</sup> They presented themselves as healers of a nation beset by violence, unemployment, and traitors in high places; and they offered to restore the greatness of Germany by *curing* the body politic, by *cutting off* the diseased parts, and by *purifying* the race through a scientifically proven program of selective breeding, euthanasia, and genetic screening. Although anti-Semitism was an important plank in the party platform, it was an ideological corollary to the more comprehensive theme of purification of German blood and soil through the creation of a new, incorruptible elite. As one SS leader expressed it: “The choice of the new class of leaders will be carried out by the SS— positively through the National Political Educational establishments...negatively, through the eradication of racially and biologically less valuable elements...”<sup>34</sup> Thus, years before the Nazis embarked on the wholesale extermination of Jews and the military conquest of Europe, they applied their programs for genetic purification to ethnic Germans, not Jews; and in German hospitals, not in concentration camps—assisted voluntarily by the medical profession.

Simultaneously with their conversion of the healing arts into techniques of genetic purification, the Nazis created rituals of transcendence that consciously borrowed from religious and mythological imagery. In addition to the well-known torchlight parades, blood oaths, and sacred fires, they created their own versions of the sacraments, such as Baptism and Matrimony, with swastikas in place of crosses on otherwise Christian altars.<sup>35</sup> Although high-ranking Nazis, like Hitler himself, were sworn enemies of Christianity, dismissing it as “a Jew slave religion” that had corrupted the martial spirit of the German race, for political reasons, they facilitated the creation of a Nazi version of the church (the so-called “German

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<sup>33</sup> Mayer, Arno J., *Why Did the Heavens Not Darken?* (New York: Pantheon, 1988); Theweleit, Klaus, *Male Fantasies* (Minneapolis: University of Minnesota Press, 1989).

<sup>34</sup> Quoted by Conway, J. S. *The Nazi Persecution of the Churches, 1933-45* (New York: Basic Books, 1968.), p. 276

<sup>35</sup> Photographs are shown in Conway, op. cit. (plates).

**Table 1: Cyborg religion replaces Judeo-Christian doctrines and symbols with pseudo-Christian imagery.**

<b>Judeo-Christian version</b>	<b>Cyborg Religion version</b>
Annunciation	<i>Dune; Terminator</i>
Ark of the Covenant	<i>Raiders of the Lost Ark</i>
Creation	Genesis Project in <i>Star Trek: The Wrath of Khan</i>
Crucifixion	?
Evangelism	<i>Black Robe; The Rapture</i>
Eternal life	Cryogenics, reverse geriatrics, artificial life: <i>Close Encounters; 2001: A Space Odyssey; Cocoon</i>
Eucharist	The cannibalistic community ( <i>Alive</i> )
Evil	Deformed and diseased people (e.g., the Penguin)
Incarnation	<i>Alien; Terminator 2; Invasion of the Body Snatchers</i>
Judgement Day	Nuclear Holocaust; <i>Terminator 2: Judgement Day</i>
Lamb of God	<i>Silence of the Lambs; The Rapture</i>
Messiah	<i>Dune; Terminator 2</i>
Millennium	Millennium Falcon ( <i>Star Wars</i> )
Miracles	Invasive medical technology
Monasticism	The Emperor and Obiwan Kenobi ( <i>Star Wars</i> ); <i>Alien 3</i>
Moral theology	Ethicists
Moses	The Penguin ( <i>Batman Returns</i> )
Mother of God	Madonna ( <i>The Immaculate Collection</i> video)
Prophecy	Priestesses of <i>Dune</i> ; Yoda ( <i>Star Wars</i> )
Resurrection	<i>Night of the Living Dead; Pet Sematary</i>
Sacrifice	Dead lambs and Jews (adumbrated in <i>Silence of the Lambs</i> )
Spirituality	The Force ( <i>Star Wars</i> )
Trinity	The Trinity test of the atomic bomb
Virgin birth	Implanted embryos

Christian” movement), composed of ordained Protestant ministers, who claimed, in the words of their leader that “Christ has come to us through Adolf Hitler,” and who attended their synods wearing brown tunics, swastikas, and jack boots.<sup>36</sup>

As anthropologists have shown, contemporary American culture shares with prewar Germany a fixation on “blood relations” as the major metaphor of social affinity.<sup>37</sup> The care-giving aspects of parenting are subordinated to the genetic definition of a parent, and court decisions give the genetic father primacy over the birth mother in “surrogate motherhood” contracts. From this perspective, the “new” reproductive technologies are the socially acceptable way of expressing racist beliefs, patriarchal values, and eugenic policies in postmodern American society. Moreover, they move the control of human behavior from the judicial and political arena, with its long history of Constitutional safeguards and democratic procedures, to a scientific/ medical context where so-called bad genes are diagnosed and babies reproduced by “objective” methods that individual citizens are powerless to evaluate or dispute.

Significantly, cyborg religion, like the Nazi party, combines pseudo-scientific theories of spiritual renewal, practical techniques for genetic screening and selective breeding, religious iconography, and state-supported policies for managing human reproduction.

### **The Three Tenets of Cyborg Religion**

Like fascism in its formative period, before it crystallized into broad-based political movements, cyborg religion occurs in a bewildering array of sectarian flavors: as self-consciously “neo-pagan” rituals, selective renderings of “Eastern philosophy,” the “pure science” of reproduction and fertility, cryogenics, and millennial “Christian” cults.<sup>38</sup> Yet no matter how diverse its manifestations, cyborg religion is recognizable by three major tenets. First, spirituality must be validated by atomic physics. For example, Einstein is regarded as a source of “spiritual inspiration” (in spite of his stated views on religion); and his theory of relativity, which is com-

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<sup>36</sup>. Conway, op. cit., pp. 47-48

<sup>37</sup>. Sault, Nicole. 1989. “‘Surrogate mothers’ and godmothers: Cultural definitions of parenthood and the body in the United States and Mexico.” Presented at the American Anthropological Association Annual Meeting, Washington, D. C

<sup>38</sup>. The extent of overlap between the New Age movement and cyborg religion is still an open question. See Nichols for a Catholic interpretation of the former: Nichols, Aidan. 1992. “The New Age movement,” *The Month* (March): 84-89.

monly believed to make time stand still, charters the immortality of the brain waves that constitute the postmodern soul. In the same vein, one popular New Age theme reinterprets Buddhism as a kind introspective equivalent of the quantum theory of physics.<sup>39</sup>

The second tenet of cyborg religion is that genetic manipulation is an intrinsically spiritual, moral act necessary for life itself. Unlike other fields of science, which spin off technologies like DDT and Agent Orange without a thought to their social and ecological implications (and when criticized fall back on a position of the moral neutrality of science), bio-engineering is packaged by its promoters with hand-wringing moral dilemmas. When discussing a symposium on the Human Genome Project held at Los Alamos, one scientist is thrilled that it created an excitement among geneticists “akin to the Manhattan Project” —then closes with the mandatory paragraph about the ethical problems raised (and answered).<sup>40</sup> Physics did not provide psychological counseling for the atomic bomb, but biotech provides a class of ethicists to resolve the anxiety of genetic choice. The message here is that biotech, like a real religion, is intrinsically *moral*.

Biotech is also intrinsically *good*, so the burden of proof is with those who play fast and loose with the lives of their progeny by failing to avail themselves of the latest medical innovations. In spite of its close institutional ties with atomic weapons facilities such as Livermore and Los Alamos national laboratories, biotech is never discussed in the American press, as is physics, as a possible source of strategic weapons. Invariably it is represented as restoring fertility, curing genetic diseases, perpetuating new stages of consciousness, and catapulting the human species to the stars.<sup>41</sup> Where other sciences are bogged down in mere instrumentality, biotech is equivalent to freedom of choice.

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<sup>39</sup>. Capra, Fritjov, *The Tao of Physics: An Exploration of the Parallels Between Modern Physics and Eastern Mysticism* (Berkeley: Shambhala, 1975).

<sup>40</sup>. DeLisi, Charles. 1988. “The Human Genome Project,” *American Scientist*, 76, No. 5, Sept./Oct.: 488-493.

<sup>41</sup>. The new academic industry of biotech apologetics is too vast to summarize here, but try the following for starters: Fletcher, Joseph. *The Ethics of Genetic Control: Ending Reproductive Roulette* (Buffalo, NY: Prometheus Books, 1988); Haraway, Donna. 1989. “A manifesto for cyborgs: science, technology, and socialist feminism in the 1980’s,” In *The Coming to Terms: Feminism, Theory, Politics.*, ed. Elizabeth Weed, pp. 173-204; Lumsden, Charles J., and Edward O. Wilson, *Promethean Fire: Reflections on the Origin of Mind* (Cambridge, MA: Harvard University Press, 1983); Rabinow, Paul. 1992. “Studies in the anthropology of reason,” *Anthropology Today* 8 (October): 7-10; Thompson, William Irwin, *Imaginary Landscape: Making Worlds of Myth and Science* (New York: St. Martin's Press, 1989).

The third characteristic of cyborg religion is that human technology assumes the redemptive and retributive role of God. The classic example is the doctrine of the Rapture,<sup>42</sup> in which Fundamentalist Christians will be lifted bodily into heaven in advance of a nuclear holocaust, leaving everyone else to fend for themselves. Although ostensibly based on Revelations and Paul's Epistle to the Thessalonians (4:16-17), it is a technocratic interpretation of Scripture in which human technology is conflated with the Second Coming of Christ. Similarly, in modernist schools of cyborg religion, the science of genetics performs retributive and redemptive functions by providing a secular equivalent of saving fallen nature: the bad gene, sometimes selfish, often mutant, rooted out by genetic engineering and then replaced by a man-made prosthesis.

But even genetics is insufficiently "spiritualized" to serve as the redemptive centerpiece of postmodern industrial society. As Table I implies, cyborg religion is the transformation of theological raw material into pseudo-scientific iconography, parodying in obsessive detail the doctrinal and symbolic features of Judeo-Christianity. By this logic, retribution and redemption must be embodied in the resurrection of a Jewish messiah who was crucified, died, and was buried. So we should expect as the next step of cyborg evolution a Space Age Jesus conceived by "aliens" through in vitro fertilization and born of a rent-a-womb virgin.<sup>43</sup>

Cyborg religion, for all the enthusiastic prose about exciting new technologies, emergent stages of consciousness, and ethical control of human destiny, is a dangerous totalitarian ideology that threatens both genuine spirituality and the institutions of political democracy.

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<sup>42</sup>. See the examples in Mojtabei, A. G., *Blessèd Assurance: At Home With the Bomb in Amarillo, Texas* (Boston: Houghton Mifflin Co., 1986). The movie *The Rapture* incorporates some of this apocalyptic imagery into a very negative portrayal of Christianity (New Line Cinema, 1991).

<sup>43</sup>. This imagery of "virgin birth" through bio-engineering is adumbrated in contemporary fiction: Rorvik, David. *The Cloning of a Man* (Philadelphia: Lippincott, 1978) and Cook, Robin. *Mutation* (New York: Putnam, 1989).



**About the author**

Peter C. Reynolds is a graduate of the University of California at Berkeley. After obtaining his Ph.D. degree in anthropology from Yale University, he served as postdoctoral fellow at Stanford University Medical School and research fellow at Australian National University. He is the author of *Stealing Fire: The Atomic Bomb as Symbolic Body* (Iconic Anthropology Press) and *On the Evolution of Human Behavior* (University of California Press). He owns a multimedia firm in Silicon Valley that provides media development and consulting services to high-tech organizations.