Modernity and the Discourse of Scientific Buddhism

late nineteenth and early twentieth centuries, the ways Buddhists and greater attention to the social, political, and polemical contexts of the Buddhist sympathizers attempted to align Buddhism with scientific been constructed by cross-fertilization of traditional Buddhism and ments, has been forged in the context of conflict and strategic rhetoand tacit assumptions characteristic of Buddhist modernism have Buddhist modernism, along with other modernist religious movecultural factors. Nor does this cross-fertilization always amount to thematic illustrations of the ways some concepts, practices, ideas, the discourses of modernity. These discourses do not just involve a peaceful "syncretism" in which people of different faiths gather Christianity. In this chapter I will show in further detail, and with terms the ways Buddhist modernism has positioned itself in relaand gently combine their best insights to forge a new synthesis. ric as well as dialogue and cooperation. I have outlined in broad doctrinal considerations but are laden with social, political, and tion to modern scientific rationalism vis-a-vis Romanticism and In this and the following chapters, I will provide some specific rationalism.

In the *International Encyclopaedia of Buddhism*, published in India, an anonymous essay entitled "Religion without Speculation" contrasts Buddhism to "unscientific or speculative religion, the sort which is almost entirely the only kind known to the West" (Singh 1996: 18:45). Buddhism, it says, is

intellectual enlightenment, supreme intuition. And it is this which differentiates it from all other religions or philosophical systems: it is nonspeculative, scientific. . . . What Gotama did was not to devise a law or formulate a system, but to discover a law, to perceive a system. His part may be compared to that of Copernicus or Galileo, Newton or Harvey, in physical science. . . . Buddhism extends the natural laws, the laws of causality to the mental or psychic domain, or, more exactly, perceives their operation in this sphere, and thereby disposes of the idea of supernatural or transcendental agencies working independent of or in contravention to the natural laws of the universe (47-48).

The quotation exemplifies one of the most important ways Buddhism gained cultural currency in the West when it was introduced in the nineteenth century: through its representation as a religion uniquely compatible with modern science. This representation was also important in Buddhist reform movements in Asia, for example those in Ceylon and Japan. Nor was this a transient phase in the early encounter of Buddhism and modernity; what I will call the discourse of scientific Buddhism became not only more voluminous but far more sophisticated throughout the late twentieth century, and is now arguably at its productive zenith. In the last few decades, a steady stream of both popular and academic books has addressed the subject of Buddhism and the sciences (see, for example, Austin 1998, 2006; Dalai Lama 2005; Davidson and Harrington 2001; Goleman 1997, 2003a; Hayward 1987, 1990; Hayward and Varela 1992; Houshmand, Livingston, and Wallace 1999; Varela 1991, 1997; Wallace 2007; Wallace and Lutzker 2003). The compatibility of Buddhism and modern science has become not only a staple of popular Buddhist literature but also a hypothesis in a number of quite sophisticated experimental studies. While all historical religious traditions in their encounters with modernity have had to reinterpret doctrines in light of science's dominance, symbolic capital, tremendous transformative effects on the world, and unsurpassed legitimacy in establishing "what is the case," perhaps no major tradition has attempted to ally itself with scientific discourse more boldly than Buddhism. Accordingly, an examination of the genealogy of the discourse of scientific Buddhism is in order.

The primary contributors to the formation of this discourse had different but overlapping agendas, spurred by two crises of legitimacy in disparate cultural contexts. The American contributors' crisis was what scholars have dubbed the "Victorian crisis of faith"-a widespread questioning of traditional forms of Christianity in the late nineteenth century. For the Asians, the crisis was that of colonialism, western hegemony, and demoralization over Buddhism's loss

of prestige in the wake of Christianization. I will examine three figures who were crucial to the early development of this discourse. Two Americans, Henry Steel Olcott and Paul Carus, represent different approaches to relating Buddhism and science, one embedded in Theosophy and spiritualism and one reflecting the extravagant optimism about the promise of science in the Victorian era. And Anagarika Dharmapala (David Hewavitarne) was the most important figure in the turn-of-the-century Sinhalese Buddhist revitalization movement and a key figure in the development of Buddhist modernism in Southeast Asia. Each of these men made an essential contribution to the early formation of the discourse of scientific Buddhism, which has had profound effects not only on scholarly and popular interpretations of Buddhism but also on its historical development.

Dharmapala: Buddhism, Science, and Colonialism

At, the World's Parliament of Religions, held in Chicago in 1893—a pivotal episode in the history of Buddhist modernism—Asian Buddhists proffered to an American audience some of the themes connecting Buddhism to modern science that endure to the present day. Anagarika Dharmapala, already a well-known reformer in Ceylon, was a young, fiery, and articulate Buddhist who by all accounts had a highly favorable reception at the parliament. Yet in his address he likely made even the comparatively progressive Christians hosting the assembly uncomfortable by declaring, unlike Soen Shaku, that the Buddha rejected the notion of a "supreme Creator"; but immediately following this statement, he claimed that the reason for this rejection was that the Buddha instead accepted "the doctrine of evolution as the only true one, with its corollary, the law of cause and effect." Then, in an attempt to seamlessly interweave Buddhist and scientific concepts, he quotes a passage from Grant Allen's Life of Darwin, claiming that Allen's passage "beautifully expresses the generalized idea of Buddhism."

The teachings of the Buddha on evolution are clear and expansive. We are asked to look upon the cosmos [according to Allen] "as a continuous process unfolding itself in regular order in obedience to natural laws. We see in it all not a yawning chaos restrained by the constant interference from without of a wise and beneficent external power, but a vast aggregate of original elements perpetually working out their own fresh redistribution in accordance with their own inherent energies. He [sic] regards the cosmos as an almost infinite

collection of material, animated by an almost infinite sum of total energy," which is called Akasa. (Dharmapala 1965: 9)

The rhetorical moves in this short passage exemplify the most common ways early authors attempted to blend Buddhism with science. First, key concepts in scientific discourse are allied with those of Buddhism. It was certainly not lost on Dharmapala, who was educated in an English school in Ceylon, that he was using two terms charged with significance for his educated and largely western audience: the first, "cause and effect," was the sine qua non of the modern scientific worldview; and the second, "evolution," was perhaps the most radical, controversial, and cutting-edge notion in intellectual discussion at the time. In claiming these concepts for Buddhism, he fused them with the doctrine that everything emerges from causes and conditions (hetupratyaya), dependent origination (pratītyasamutpāda), and the doctrine of karma. By rejecting a supreme creator, he risked alienating his liberal Christian allies at the parliament, but with his description of Buddhist doctrine in explicitly scientific terms, he threw his hat in with the one discourse in the western world compelling enough to challenge the largely Christian assumptions of the organizers of the parliament: empirical science.

Second, western scientific description and explanation are subsumed within Buddhist discourse. This rhetorical move was especially prevalent among Asian Buddhists and western enthusiasts who presented Buddhism as embracing, but also preceding and surpassing, western science. In the passage quoted, Dharmapala treats the Allen quotation as if it were a direct formulation of Buddhist ideas, nestling it within his discussion of the Buddhist view of the cosmos and then adding the assertion that what Allen really means by the "infinite sum of total energy" is $ak\bar{a}\hat{s}a$, a Sanskrit term used in Buddhism to denote unconditioned space. Clearly, the implication is that the Buddha himself understood these scientific ideas 2,400 years earlier, though they had been discovered only recently by the West.

To understand the historical context of Dharmapala's and others' attempts at the parliament to ally Buddhism and science, it is helpful to take a step back and notice some of the central themes of the 1893 World's Fair, of which the parliament was a part. The fair that year, called the Columbian Exposition, was a celebration of the achievements of Christopher Columbus. Robert Rydell and Richard Seager have both convincingly argued that the fair's exhibitions and activities represented a liberal utopian vision of late nineteenth-century America in which white America was vividly contrasted with "exotic" and "less civilized" peoples (Rydell 1984; Seager 1995). The physical layout of the fair and its exhibitions were divided between the White City, a temporary public space

constructed for the fair, featuring neoclassical buildings and celebrating the triumphs of Columbus and America, and the Midway Plaisance, which consisted of exhibits representing the nonwestern world. They included large-scale replicas of scenes of faraway places: a re-creation of a North African village; Cairo Street, with a bazaar, dancing girls, and camel rides; a Chinese theater featuring a Confucian play and a fortune-teller. Victorian ladies and gentlemen could meander through the exhibitions and gaze at the spectacle of the world's "primitive cultures," complete with native peoples shipped in for the event, right in the heart of Chicago.

The implicit ideology behind such representations was the evolutionary model of religion, according to which all world religions were stages along the way to the most highly evolved form of religion and society. While the Christian organizers of the fair were liberal and enthusiastic about representing nonwestern cultures, this notion of progressive revelation tacitly relegated them to a lower status (Seager 1995: xxii-xxiii). It is particularly ironic that two of the most significant Buddhist contributors to the parliament presented Buddhism as not only in accord with what most educated Americans believed to be the most advanced scientific thinking of the day but as having anticipated such thinking by over two millennia. The use of the language of evolution and cause and effect signaled an attempt to subvert the triumphalism of the evolutionary model of the development of religions and the widespread derogatory representations of Buddhism and Asians in general. The Buddhists' use of scientific language at the parliament—not to mention their eloquence and sophistication disrupted the taxonomy of civilized-versus-primitive that was implicit not only in the condescending language and attitudes displayed by some of the American hosts but also in the very physical design of the fair. Employing scientific language to express, translate, and transform Buddhist ideas, these Buddhists were both stretching scientific vocabulary to fit emerging Buddhist agendas and attempting to subvert the dominant western culture's hegemonic ideology with its own language.

The concerns that brought Asians to develop this discourse were not unique to the parliament, of course, but part of their broader attempt to negotiate representations of Buddhism that had surfaced with the European "discovery" of Buddhism as well as more general representations of Asians. Those Asians who were conversant in English or, like Dharmapala, educated in British-run schools, were quite familiar with the characterizations of Buddhism that were prevalent in the West in the eighteenth and nineteenth centuries. Virtually all western literature of this period that made reference to non-Anglo-Saxon peoples attempted to explain them through reference to supposedly inherent characteristics and predetermined inclinations, temperaments, and intelligence. The typical

Victorian characterization of the "Oriental mind" was that it lacked intellectual ability, was plagued by an excess of imagination, and was indolent and childlike. John Davy said of the Sinhalese: "in intellectual acquirements, and proficiency in arts and sciences, they are not advanced beyond the darkest period of the middle ages. Their character, I believe, on the whole, is low, tame, and undecided: with few strong lights or shades in it, with few prominent virtues or vices" (quoted in Almond 1988: 43). Such attitudes were used to justify colonial control over Asian lands—indeed such control was seen to be the only hope of the oriental. Dharmapala was inflamed by such characterizations, particularly of the Sinhalese, and labored in many writings to combat them.

Buddhism itself was often characterized in nineteenth-century western literature as pessimistic, nihilistic, devoid of any power for promoting goodness, and in a state of degradation and decline. Especially decried were Buddhism's supposed idolatry, benighted superstition, and mechanical ritualism. Not just the uninformed made such assertions but the early orientalist scholars who were largely responsible for introducing Buddhism to western audiences, including Jules Barthélemy Saint-Hilaire, who described Buddhism as the nihilistic nadir of Indian pessimism. The interpretation of Buddhism as pessimistic touched off considerable debate among scholars and early Buddhist sympathizers. Much was at stake in these arguments; as Tweed points out, the optimistic spirit of the late nineteenth century made little room for a popular adoption of an overtly pessimistic doctrine, and such interpretations may well have spelled the end of the first wave of interest in Buddhism in America (2000). Thus it is no accident that Dharmapala's presentations of Buddhism to Americans and Europeans insisted on its optimism and activism nearly as much as its scientificity.

Although such disparaging characterizations of Buddhism abounded in the European and American literature of the time, the assessment of Buddhism, as we have seen, was not universally negative. Indeed, Dharmapala arrived at the Chicago fair during a surge of interest in Buddhism. Westerners who were favorably disposed toward it at this time, however, seldom if ever embraced the living tradition; they looked to the figure of the Buddha, popularized by Edwin Arnold's romantic poem *Light of Asia*, and to the Buddha's original, "pure" teachings, which they believed had later become adulterated by the ignorant. The Buddha often was portrayed in the latter decades of the nineteenth century as a noble ethical reformer who rejected the caste system and set forth a touching doctrine of infinite compassion for all beings. Henry Steel Olcott saw the Buddha as a figure much like the ideal liberal freethinker—someone full of "benevolence," "gratitude," and "tolerance," who promoted "brotherhood

among all men" as well as "lessons in manly self-reliance" (1883: 42, 36, 37, 45; quoted in Prothero 1996: 97).

Dharmapala, who was a close associate of Olcott for a time, was well aware of such representations. But there was more that he felt compelled to respond to. Underlying his efforts to revitalize Buddhism was his deep resentment against colonial rule of his native Ceylon and its suppression of Buddhism. He aimed to rehabilitate the dharma not only in the eyes of its western detractors but in those of the colonized and demoralized Sinhalese Buddhist population. With colonial rule and its attendant missionary activity, Buddhism faced a crisis of legitimacy, having lost prestige and considerable economic and political power. Dharmapala vigorously opposed Christian missionization and promoted a nationalistic cultural revival to bring Buddhism back from its demoralization.

Dharmapala's writings and talks show that he believed that the best approach for his revival of Buddhism was to embrace the favorable representations of Buddhism put forth by western enthusiasts and vigorously counter the disparaging ones. Thus he portrayed Buddhism as a religion perfectly suited to the challenges of the modern age, combating the impressions of Buddhism as nihilistic, pessimistic, passive, ritualistic, and superstitious and promoting it as activist, optimistic, and scientific. He largely adopted the textualist reconstruction of his tradition offered by western orientalist scholars, as well as the positive characterizations of Buddhism by westerners who tried to make it appealing to late Victorian culture. Dharmapala proffered a rational Buddhism that centered on the individual and his or her own salvation as well as altruistic social service. He adopted the perspective common among orientalists that the living Buddhism of his day was in a state of corruption and degeneration, having declined from the pristine, scientific, rational teachings of the Buddha himself. He emphasized the meditative and ethical elements of Buddhism and was critical of many practices that could be interpreted as superstitious or ritualistic. To replace these, he attempted to codify a version of Victorian morals and decorum in the style of Buddhist monastic codes of behavior, in order to reform the everyday behavior of the peasants (Gombrich and Obeyesekere 1988: 212-15). Portraying the Buddha as a rebel against the authority of the Brahmanical priesthood and its rites, he insisted that the Buddha was "democratic" and saw no intermediary between the individual and truth. Thus, Dharmapala's representation of Buddhism, though it could be fiercely critical of Christianity and the West, was deeply informed by Protestantism, Enlightenment rationalism, and Victorian cultural forms. This influence is largely masked in his writings—nowhere does he admit influence from the West, and perhaps he was himself unaware of its extent. Always these themes were presented as "pure Buddhism."

Because Dharmapala's Buddhism resonated so well with liberal Victorian sensibilities, he could use it as a powerful rhetorical tool for harmonizing with natural allies, as well as a weapon against his adversaries. His presentation of a rational, scientific Buddhism to western audiences was a reverse orientalism what Seager, following James E. Ketelaar, calls "strategic occidentalism": "the selective and often highly politicized appropriation of western ideas, techniques, and critiques for use in undermining the claims of the West, asserting Asian independence, and negotiating roles in the emerging global society" (Ketelaar 1991; Seager 1995: 96). Especially when directed at western audiences, Dharmapala's presentation of Buddhism was often finely tuned to reflect the sentiments of his listeners and readers. For example, in a talk he gave in New York while in the United States for the parliament, he exploited liberal, upper middleclass, Protestant prejudices against Catholicism, ritual, superstition, and perhaps even Jews and Arabs while acutely appealing to their progressive Victorian sensibilities:

In Christian countries scientists are at work to elevate the masses by scientific methods, while the missionaries that go to Asia are utterly deficient in scientific knowledge, and all they can offer are the myths of Canaan and Galilee which had their origin in the backwash of Arabia. . . . The message of the Buddha that I bring to you is free from theology, priestcraft, rituals, ceremonies, dogmas, heavens, hells and other theological shibboleths. The Buddha taught to the civilized Aryans of India twenty-five centuries ago a scientific religion containing the highest individualistic altruistic ethics, a philosophy of life built on psychological mysticism and a cosmology which is in harmony with geology, astronomy, radioactivity and reality (1965: 25, 27).

Even a cursory knowledge of Sinhalese Buddhism on the ground belies this portrayal of Buddhism as free from ritual, priests, ceremony, heavens, and hells; yet early apologists repeated this sentiment often, and its echo continues today. Remarkably, Dharmapala clearly perceived the fissures in American society and cast his lot with educated liberals who embodied progressivist ideals against his nemeses, the evangelical, mission-minded Christians, whom he saw as political tools of western governments. He vociferously opposed these missionaries and their activities in Ceylon. Their behavior, he claimed, revealed that their Christianity was "political camouflage" whose three motives were "politics, trade and imperial expansion" and whose weapons were "the Bible, barrels of whiskey and bullets" (1965: 439). He even suggested, in an amusingly

prescient passage, that America should be sending scientists rather than missionaries to Asia:

Instead of sending missionaries who preach the unscientific doctrine of fundamentalism to India and Buddhist lands, I would suggest that scientific missionaries who can give needed knowledge on radioactivity, and teach technical industries to the youths be sent. It is more meritorious to give pure knowledge born of science than to give the antiquated theological dogmas which originated in the brain of muddleheaded priests of the medieval period (29).

Elsewhere he claimed that Christianity had been detrimental to the progress of the nations of Europe, who "groveled in darkness until the light of physical science began to dawn" (440). The western narrative of the evolution of "civilization" is thus turned on its head, with the ancient Indians possessing a scientific religion while Europe wallowed in ignorance until the Enlightenment. Clearly he was appealing to and adopting the rhetoric of late nineteenth-century American modernist Christians and skeptics who themselves had quarrels with evangelical Christianity, missionization, and theologies they believed could not withstand scientific scrutiny.

Dharmapala's contribution to the discourse of scientific Buddhism reflects concerns specific to Buddhism's crisis of legitimacy in his own land and abroad. Although his project was highly influenced by western notions of science, democracy, individualism, and enlightenment, he remained loyal to a distinctively Buddhist vision of the world. For him, Buddhism encompassed these western ideas; they were already nestled comfortably within the dharma, which had anticipated them by centuries.

Olcott's Theosophical Buddhism and Occult Science

Asian reformers' development of the discourse of scientific Buddhism was in part a response to the demoralization brought about by colonialism, racist representations, and missionization; some of the important western interpreters using such rhetoric had somewhat different interests. Each side construed Buddhism in scientific-rationalist terms in response to a crisis in its respective cultural context. Yet these responses were not isolated from each other. Dharmapala's relationship with Henry Steel Olcott and the Theosophical movement deeply influenced his emphasis on science and reason, and Paul Carus invited Dharmapala to the United States several times. Although Olcott's and Carus's

the various kinds of "occult powers" and ways they might be developed (120–21). He carefully maintains his scientific rhetoric throughout:

- Q. Our scriptures relate hundreds of instances of [miraculous] phenomena produced by Arhats: what did you say was the name of this faculty or power?
- A. *Iddhi vidha*. One possessing this can, by manipulating the forces of Nature, produce many wonderful phenomena, i.e., make any scientific experiment he chooses. (123–24)

A double rhetoric, therefore, is present in the Catechism regarding the miraculous.

Olcott's interpretation of Buddhism was highly influenced by his own Theosophical worldview and the long tradition of alternative American spirituality that affirmed the existence and value of clairvoyance, faith healings, and communication with the dead and with the mysterious mahatmas. In response to the growing popularity of Catholicism in Ceylon and especially of a Catholic shrine where numerous healings were said to have taken place, he even made his own Buddhist faith healing tour of the island. Drawing on his early training in mesmerism, he is reported to have performed many healings that he publicly attributed to the Buddha, no doubt to show that the Catholic healing shrine was not the only healing game in town and to dissuade Sinhalese from converting. In private, however, he rejected the "miraculous" nature of his cures. Insisting on strictly physiological explanations, he accounted for them in terms of "the passing of a 'nerve-aura' between himself and a patient whose 'mesmeric fluid' was in 'sympathy' with his" (Prøthero 1996: 108).

Although the *Catechism* relies extensively on occult science, Olcott also marshals some of the essentials of mainstream science to the defense of Buddhism. Siding with scientific rationalism against Christianity, he denies "creation out of nothing," claiming this would be a miracle—presumably in the sense of the abrogation of natural law rather than the "manipulation of the forces of Nature" in the passage quoted earlier. Buddhism also affirms, along with science, the "indestructibility of force," as well as the consistent operations of causality (1881[1947]: 119). Like Dharmapala, Olcott presses the theory of evolution into his service, claiming that according to Buddhism, "everything is in flux, and undergoing change and reformation, keeping up the continuity according to the law of evolution" (110). He also asserts that the Buddha taught that "there were many progenitors of the human race" and that the theory of evolution verifies the Buddhist doctrine of karma. "Modern scientists teach that every generation of men is heir to the consequences of the virtues and the vices of the preceding generation, not in the mass, as such, but in every individual case. Every

one of us... gets a birth which represents the causes generated by him in an antecedent birth. This is the idea of Karma" (118). On the basis of these parallels between science and Buddhism, he claims that Buddhism is a "scientific religion" rather than a "revealed religion," obviously giving more credence to the former (109).

Olcott sums up the essence of Buddhism with the terms "self-culture," "universal love," and "justice" because, through karma, everyone will unerringly reap the rewards of his actions, bad or good (1881 [1947]: 53-54). He also takes pains to insist that Buddhism opposes "idol worship" and the observance of "ceremonies and other external practices" (55-58). "Charms, incantations, the observance of lucky hours and devil-dancing," moreover, are all "positively repugnant" to the fundamental principles of Buddhism (58), and such practices found among contemporary Buddhists are due to the decline and corruption of the dharma. Olcott insists, as well, that Buddhism perfectly embodies the social virtues highly valued among liberal modernists: women are on a "footing of perfect equality with men," and the Buddha was a social reformer who rejected caste inequality outright (71-72). Buddhism, moreover, displays an experimental, pragmatic attitude and is based on empirical evidence and autonomous reason—an implicit but obvious contrast with traditional Christianity, for which he often showed contempt. "We are earnestly enjoined to accept nothing on faith; whether it be written in books, handed down from our ancestors, or taught by the sages" (62). Presumably referring to the Kālāma Sutta, he insists that a Buddhist is required to believe only "when the writing, doctrine or saying is corroborated by our own reason and consciousness" (63).

Olcott's strain of Buddhist modernism illustrates the placement of Buddhism in relation to the three discourses of modernity that I discussed in chapter 3. He allied Buddhism with scientific rationalism in implicit criticism of orthodox Christianity, but went well beyond the tenets of conventional science in extrapolating from the Romantic and Transcendentalist-influenced "occult sciences" of the nineteenth century.

Carus: Buddhism and the Religion of Science

Perhaps the most important western figure who attempted to interpret Buddhism through science was Paul Carus. A German immigrant to the United States, Carus edited the periodicals the *Open Court* and the *Monist* and wrote more than seventy books and hundreds of articles on a wide variety of subjects, including Kant, Spencer, Goethe, Christianity, science, and mathematics. He was a participant at the World's Parliament of Religions. Not a scholar of

Buddhism per se, Carus, like Olcott, rode on the orientalist scholars' coattails for his understanding of things Buddhist. He is important here because his popular presentation of a definitively rationalist, scientific Buddhism, like Olcott's Buddhism, reflected the broad themes of liberal Protestantism and Enlightenment philosophy but was much more devoted to a mainstream, rather than occult, understanding of science.

Carus's own religious background is significant in understanding his attitudes toward Buddhism. He grew up a devoted conservative Christian but had a crisis of faith that shattered his early worldview. His own speech at the parliament poignantly hints at his trauma of believing he was damned for his increasing doubts about Christianity. He declared to the audience that he himself had "suffered from the misapplication of religious conservatism. . . . I have experienced in my heart, as a faithful believer, all the curses of infidelity and felt the burning flames of damnation" (1916: 34). Condemnations of evangelical Christianity later in the talk suggest the cause of his loss of faith:

You who preach such a religion, can you fathom the tortures of a faithful and God-loving soul, when confronted with ample scientific evidence of the untruth of his religious convictions?... Whenever there is a soul distorted by a conflict between faith and scientific insight, the latter will, in the long run, always be victorious. And what a downfall of our noblest hopes must ensue! The highest ideals have become illusions; the purpose of life is gone, and desolation rules supreme. (34-35)

Out of this desolation, however, Carus came to believe that a new "purified" Christianity could be built. Indeed, from the fragments of his lost faith he constructed a new one whose cornerstone was the very science that had destroyed the old. He believed that his own experience mirrored the evolution of religion itself, the "dross" of which the light of reason and science must erase to leave only the gold. The despair entailed in this purging was necessary in order to "learn to appreciate the glory and grandeur of a higher stage of religious evolution" (1916: 36). This higher stage is heralded by the ascendancy of the scientific worldview, and Carus's new faith sacralized science as nothing less than a new revelation. "The religion of the future cannot be a creed on which the scientist must turn his back, because it is irreconcilable with the principles of science. Religion must be in perfect accord with science. . . . Science is divine, and the truth of science is a revelation of God. Through science God speaks to us; by science he shows us the glory of his works; and in science he teaches us his will" (20). Carus was so insistent that science was a religious revelation that

he criticized antipathy to science by the religious as "a grievous fault," a "moral error" and, in fact, itself "irreligious" (34).

Not content to leave Christianity behind completely, he came to believe that he could retain its essential truths while jettisoning its dogmatic and mythical elements. His new faith was in a religion that was not yet fully formed, he thought, but was emerging through the rise of science and the increasing contact among the world's religions. What was developing from this historical situation, he asserted, was a "religion that can never come into conflict with science, which is based on simple and demonstrable truth" and is "the goal and aim of all religions" (1892: ví-vii). Carus called it the Religion of Science.

Carus's encounter with Buddhism came at the parliament, where he was especially impressed by the speeches of Dharmapala and Sōen, whose talks, as noted, reflected an already modernized Buddhism. Their presentation of a Buddhism whose essence was evolution, cause and effect, natural law, and experiential knowledge convinced Carus that he had found the best representative of the Religion of Science among all the traditional, historical religions. He spent the next few years vigorously studying Asian religions and quickly became America's most enthusiastic supporter of Buddhism. His position as editor of two journals and the Open Court Publishing Company allowed him to disseminate books and articles on Buddhism to a wide audience. Although explicit connections between science and Buddhism were scant in his works, he presented Buddhism in its broad outlines as a religion containing many essentials of Enlightenment rationalism and late nineteenth-century science. Karma was natural law translated into the ethical realm; rebirth anticipated the Darwinian understanding of species transforming themselves into other species; the detailed analyses of mind in Buddhist texts were in fundamental agreement with modern psychology; the exhortations of the Buddha to be "lamps unto yourselves," not blindly believing but verifying his statements experientially, contained the quintessence of the scientific spirit.

Carus's most influential work, The Gospel of Buddhism, assembled material from the Buddhist canon, edited to resemble the chapter-and-verse arrangement of the Christian gospels. Although disparaged by some scholars, it became quite popular and was translated into numerous languages. Like Olcott's Catechism, Carus's Gospel was used to reintroduce Asian Buddhists themselves to Buddhism. Soen reported that it was used at Tokyo Imperial University, Dharmapala promoted it widely in Ceylon, and a sect of Japanese Pure Land Buddhists used it for training priests (Sharf 1995b: 12). Carus's Gospel used translations of Buddhist texts available at the time, but he admitted to occasional "modernization" of the contents, and he added six chapters of his own that he called "elucidations of [Buddhism's] main principles"—considered "main" insofar as they appeared to be in harmony with the Religion of Science (1915: vi).

Carus made little attempt to conceal that he was highlighting certain aspects of Buddhism and ignoring others. The essence of the Buddhism that was relevant to the modern world was, like that of Christianity, whatever could be interpreted as in accord with the current scientific worldview. Although he did not expunge all of the miraculous elements in the texts-keeping those he believed to be morally significant or to "bear witness to the holy awe of the first disciples and reflect their religious enthusiasm"—he nevertheless "pruned away the exuberance of wonder which delights in relating the most incredible things, apparently put on to impress while in fact they can only tire" (1915: viii). The texts, summaries, and excerpts he chose to include were many of the ethical and doctrinal teachings in the Pali canon, as well as parables and stories from the Buddha's life. Keen to show that the heart of Buddhism was basically the same as that of Christianity, he also included an appendix drawing parallels between passages in his Buddhist gospel and the Christian one. These parallels served, in turn, another purpose: to demonstrate that the essential truths of both Buddhism and Christianity pointed toward a universal religion not yet manifest in the world. His program is clear in the following passage in his introduction.

All the essential moral truths of Christianity, especially the principle of universal love, of eradication of hatred, are in our opinion deeply rooted in the nature of things, and do not, as is often assumed, stand in contradiction to the cosmic order of the world. Further, some doctrines of the constitution of existence have been formulated by the church in certain symbols, and since these symbols contain contradictions and come in conflict with science, the educated classes are estranged from religion. Now, Buddhism is a religion which knows of no supernatural revelation, and proclaims doctrines that require no other argument than "come and see." The Buddha bases his religion solely upon man's knowledge of the nature of things, upon provable truth. Thus, we trust that a comparison of Christianity with Buddhism will be a great help to distinguish in both religions the essential from the accidental, the eternal form the transient, the truth from allegory in which it has found its symbolic expression. We are anxious to press the necessity of discriminating between the symbol and its meaning, between dogma and religion, between the metaphysical theories and statements of fact, between man-made formulas and eternal truth. And this is the spirit in which we offer this to the

public, cherishing the hope that it will help to develop in Christianity not less than Buddhism the cosmic religion of truth. (1915: xiii)

This passage contains many of the basic elements of Carus's translation of Buddhism into a religion of scientific modernism. It begins with a reference to a scientific notion of the fundamental order of things, in Carus's words, "the cosmic order of the world" or the "constitution of existence." It is taken for granted that the science of the day has uncovered this basic order and that there is a bedrock of scientifically discernible facts that are discoverable, provable, and undeniably true. "Scientific truths," Carus claims elsewhere, "are such statements as are proved by undeniable evidence or by experiments and formulated in exact and unequivocal terms" (1916: 28). For Carus, "science is stern and unalterable; it is a revelation which cannot be invented but must be discovered" (46-47). He often insists that scientific truth and religious truth are one and the same—this means that truth is the correspondence of ideas and reality, and that no matter the path to it, scientific or religious, truth is one. If a religion has any claim to truth, that truth must also be scientific—for Carus, there simply could be no other definition of truth. Furthermore, as was common in the late nineteenth century, his understanding of science assumed that it was inextricably linked to the progress of humankind as a species—that it would, as Carus puts it, "raise our civilization to a higher plane" (79).

Carus also refers in the foregoing passage from his Gospel to the spiritual crisis of the educated (and no doubt his own spiritual crisis) and the problem of the disjunction between the order of things revealed by science and the outdated doctrines and stories of the world's religions. He mends this disjunction by recourse to the ideas of symbolism, allegory, and mythology-loosely used in his vocabulary to indicate nonliteral stories or ideas that nevertheless contain ethical meaning or point obliquely to literal truths. The recasting of ideas incompatible with a scientific worldview as having nonliteral, symbolic meaning was and is a very common tool of modernizing religious reformers. All discourse in a tradition that is obviously counter to the dominant—in this case, scientific—discourse is interpreted as nonliteral, allegorical, symbolic. In the case of Buddhism, miracle stories and prescientific cosmologies are erased from the realm of cognitive statements describing actual events or ontological facts about the world and translated into the realm of ethical, allegorical stories that can exist within the scientific conception of the world-or dropped altogether as the "exuberance of wonder . . . put on to impress." Like Bultmann with his demythologization of Christianity over a half century later, Carus attempted to find a home for Buddhism in the modern era by interpreting material unacceptable to science as mythological and symbolic. Carus, in fact, claimed

that to understand such things literally was *irreligious*, a kind of "paganism." "A religious truth symbolically expressed is called mythology, and he who accepts the mythology of his religion not as a parable filled with meaning but as a truth itself, is a pagan. Now we make bold to say, that no conflict is possible between genuine science and true religion. What appears as such is a conflict between science and paganism" (1916: 38).

Once material deemed unacceptable to science could be transposed into the realm of the symbolic, and thereby effectively neutralized, the "essential" in a tradition could be extracted from the "accidental... the eternal from the transient, the truth from allegory." Confident in his capacity to discern between the fundamental truths of Buddhism and its superstitious cultural accretions, Carus could then declare that Buddhism "knows of no supernatural revelation, and proclaims doctrines that require no other argument then the 'come and see.'" Thus all of religion is divided up into the two separate realms of "symbol and meaning, dogma and religion, metaphysical theories and statements of fact, man-made formulas and eternal truth."

Finally, the passage discloses what Carus considered his ultimate purpose in presenting The Gospel of Buddhism: to further the development of a universal, cosmic religion. He proposed an evolutionary survival of the religious views most congruent with science until ultimately science and religion would merge. "Mankind is destined to have one religion, as it will have one moral ideal and one universal language, and the decision as to which religion will at last be universally accepted, cannot come about by accident. Science will spread, maybe, slowly but unfailingly, and the universal acceptance of a scientific world-conception bodes the dawn of the Religion of Truth-a religion based on the plain statements of fact unalloyed with myth or allegory" (1897: 10). Like many of his day, Carus applied the broad contours of Darwin's evolutionary theory to cultural phenomena rather promiscuously, assuming that religions evolved in ways similar to biological species and would either continue developing to culminate in the Religion of Science or become anachronistic and wither away. Religions, as well as plants and animals, were in a struggle of the survival of the fittest, and a religion that rejects science was "inevitably doomed. It cannot survive and is destined to disappear with the progress of civilization" (1916: 39). Eventually Carus came to believe that Buddhism was the religion most likely to develop into the Religion of Science, for Buddhism, he claimed, "is a religion which recognizes no other revelation except the truth that can be proved by science" (1897: 114).

Although Olcott's and Carus's circles overlapped—both were associates of Dharmapala and Sōen Shaku—they had different views of science, if not Buddhism. Carus, in fact, was somewhat hostile toward "esoteric Buddhism"

(Tweed 2000 [1992]: 60). Both, however, were responding in varying ways to a social crisis.

Science and Social Crisis

The discourse of scientific Buddhism as represented by these figures was part of their response to crises of legitimacy not just in their religious contexts but also in their respective personal, cultural, and political ones. For Europeans and Americans, the larger context was two widespread social phenomena of the time: the Victorian crisis of faith and the emergence of the immense symbolic capital of scientific discourse. Carus's embrace of Buddhism and sacralization of science was a reaction to the sense of radical anomie and nihilism he experienced attendant on his loss of his traditional Christian faith—a loss brought about largely by his belief in its incompatibility with science. Like many westerners attracted to Buddhism in his time, he came to see orthodox forms of Christianity as deficient, effete, and prescientific. Although he found scientific accounts of the world irresistibly compelling, he still longed for a spiritual view of humanity and the cosmos. His loss of faith and attempts at reconstruction were not unique; a great deal of literature reflects similar crises of faith and religious disorientation, insecurity, and doubt among Victorians, as well as new, skeptical modes of secular, religious, and quasi-religious life that arose in response. The reasons for this phenomenon are multiple (see Helmstadter and Lightman 1991). Most important here are the increasing dominance of scientific explanations for things formerly explained through religion and the growing distribution of scientific ideas and the ideas of non-Christian traditions in the popular press. This crisis was also a reaction against a wave of religious revivalism and evangelical fervor in England and America and an associated increase in missionary activity (Turner 1991: 9-38).

Carus's solution to his own crisis of faith was the valorization of the very science that had formerly robbed his world of meaning. His embrace of science as the road not only to absolute certainty but also to the progress of human civilization is clear throughout much of his writing:

Bear in mind that the nature of science is the endeavor to establish an unquestionable orthodoxy on the solid foundation of evidence and proof? [sic] (1916: 80)

Science has changed our life and is still changing it, raising our civilization to a higher plane, and making us conscious of the great

possibilities of invention, which by far outstrip the boldest promises of the illusions of magic. (79)

To escape the moral degradation of religion, we can no longer shut out the light of science, we must learn to understand that God is a God of evolution, and the evolution means progress, and progress is the essence of life. (89)

Such pronouncements, though extreme in contrast to today's understanding of the role and possibilities of science, reflect the widespread confidence in science in the late Victorian era. The scientism of this time not only claimed for science the capacity to establish certainties about all questions that could reasonably be asked but also the ability to advance the material, ethical, and for some, spiritual progress of humankind. Nor was Carus alone in giving a religious cast to science; religious interpretations of evolution linked with an optimistic view of inevitable progress along with religious or quasi-religious social forms were not uncommon. August Compte, the father of positivism, attempted to found a positivist church devoid of metaphysics. Henry Ward Beecher claimed that geological research had discerned "the long-hidden record of God's revelation in the material world" (quoted in Barbour 1997: 67) Lyman Abbot said the scientific endeavor described the history of the outward signs of an "infinite and eternal energy from which all things proceed" (quoted in Barbour 1997: 67).

A new scientific religiosity was emerging that conjoined the scientific confidence of the time with a spiritualized optimism derived from modernist Protestantism. Even accounts of skeptics who rejected religion completely suggest that their unbelief mirrored in important ways the religious life they rejected, often involving "anticonversion" narratives, a sense of renewed moral commitment, dedication to human welfare, and a kind of evangelical desire to promote their new views (Turner 1991: 16–17). Thomas Huxley described the scientific establishment as the "Church Scientific" and preached what he called "lay sermons" popularizing science and condemning organized religion (Knight 1986: 3–4). Carus's sacralizing of science, then, was a radicalization of tendencies well ensconced in late Victorian thinking. His attempt to merge Buddhism with science, while unusual, was one instance of a wider religious experimentation on the part of many who were experiencing the Victorian crisis of faith.

Universalism

Among British and Americans who were becoming increasingly aware of cultural and religious diversity through the popular press, an important aspect of

the Victorian crisis of faith was the challenge of religious pluralism and conflicting truth-claims among the world's religions. Although missionary expansion was at its height and traditional forms of Christianity were thriving at the time, many people were profoundly challenged by the relativization occasioned by the unprecedented awareness of the profusion of worldviews. For some, including Carus and Olcott, the solution to this problem lay in a universalist interpretation of religion in which the conflicting claims of the various philosophies and religions could be reconciled by their own self-transcendence. Theosophy's motto "There is no religion higher than Truth" expressed a common perennialist theme: the individual religious traditions were partial and incomplete reflections of a hidden, transcendent Truth that no one historical religion could lay claim to exclusively. As I have suggested, this idea was a crucial element in the increasing acceptance of Buddhism and other nonwestern traditions. While Olcott and Carus came to believe that Buddhism-albeit a revised versionwas the best window on this universal truth, neither saw any tradition as having exclusive possession of it. For Olcott, Buddhism was the best expression of the primordial esoteric tradition that infused all religions. Although he considered himself a Buddhist and had taken refuge in the three jewels,2 this identity was subsumed under his allegiance to the more universal vision of Theosophy. Olcott's Buddhism was not just a tradition among traditions but the best representative of the primal, perennial tradition: "Our Buddhism was that of the Master-Adept Gautama Buddha, which was identically the Wisdom Religion of the Aryan Upanishads, and the soul of all the ancient faiths" (Olcott 1895-1935 [1974-75]: 2: 168-69).

For Carus, Buddhism was the most promising pointer toward the Religion of Science, not Olcott's ancient, primal tradition but an emerging universal religion-science that would retain what is true in historical religions and discard the rest as nature casts off species no longer viable. Carus's primary existential commitment was clearly to this grand narrative of scientific religion rather than to Buddhism per se. His enthusiasm for Buddhism lay in his interpretation of the Buddha as the "first prophet of the Religion of Science" (1897: 309). Insofar as Buddhism—as well as a similarly demythologized Christianity—could be integrated into the totalizing discourse of religious scientism, it could help to re-create science, the cold, harsh destroyer that brought on his crisis of faith, as a religious revelation.

This commitment to a notion of religious truth that transcends any historical religion was a crucial theme in the western interpretation of nonwestern traditions. In the Victorian era, few Europeans and Americans embraced Buddhism exclusively; most of those who were interested saw it as a compelling part of a larger picture. Then, as now, many western Buddhists' and Buddhist

sympathizers' allegiance was not primarily to Buddhism as such but to a truth reachable by Buddhism as one path among many. Certain themes in Buddhist scriptures, for example the metaphor of the raft and skilful means (upāya), are easily interpreted in such a light. But in appropriating Buddhist ideas as a solution to the problem of pluralism, westerners were not so much adapting Buddhism as elaborating issues at the heart of the European Enlightenment and the very birth of modern scientific discourse. Stephen Toulmin convincingly demonstrates that the opening gambits of the Enlightenment—Descartes's attempts to establish a totalizing discourse of truth and a method that would ascertain certainties transcending sectarian differences-were themselves rooted in an earlier crisis of religious pluralism: the Thirty Years War. The project of modernity itself, Toulmin argues, was founded on a reaction against the tolerance of Renaissance writers, for example Montaigne, of ambiguity and uncertainty, and on a sense of pressing need to overcome the doctrinal differences and pluralism perceived to have caused these wars (1990). Truth, on this model, must transcend specific cultural contexts, religious positions, and political agendas; it must establish universal laws, ethical norms-in Carus's words, an "unquestionable orthodoxy on the solid foundation of evidence and proof" (1916: 80).

The desire for transcendent certitude and universal truth is, however, inevitably shaped by particular traditions and cultural conditions, and this apparently universalist position was from the beginning a part of the pluralistic mix. Moreover, despite its disaffection with western modes of thought and practice and its frequent appeals to the wisdom of an exotic tradition, it was a position grounded in western modernity. As Prothero shows, however much Olcott distanced himself from traditional Christianity, the deep structure of his Buddhism remained embedded in Protestantism (Prothero 1996: 7-9, 176-77). Olcott and Carus were anxious to fit Buddhism into the late nineteenth and early twentieth-century metanarrative of modernity, with its themes of reason, scientific and social progress, optimism, and activism, but just as Descartes's dream of establishing indubitable foundations of philosophic and scientific discourse failed to banish ambiguity and plurality, Carus's and Olcott's universalism could not escape becoming one position among others. Nor could it avoid clashing with modernizers who had somewhat different interests-most notably Dharmapala.

Indigenous Modernity and Critique of Christianity

If Carus's and Olcott's contributions to the discourse of scientific Buddhism were inextricably intertwined with the scientific triumphalism of their time and \place, Dharmapala—as well as some other modernizing Asians, for example Spen-used scientific rhetoric to legitimate his own triumphalist Buddhistnationalist discourse. Despite the considerable influence of Olcott and Protestantism on Dharmapala, his partnership with Olcott and the Theosophical movement ultimately was not able to withstand their fundamental differences. One of the important factors in his rejection of Theosophy centered on this issue of universalism; the price of Buddhism being assimilated into a non-Buddhist model of truth was ultimately too high for him. Theosophy's main tenet, "There is no religion higher than Truth," necessarily subsumed living religious traditions beneath an abstract, universal religion transcending all its imperfect and fragmentary reflections. Olcott had already acutely experienced the practical problems of approaching adherents of living traditions with this idea; Dayananda Saraswati, whose organization, the Arya Samaj, had once been merged with the Theosophical Society, eventually renounced his ties to it because he saw Olcott as being too Buddhist and not accepting the higher revelation of the Vedas. Dharmapala, in turn, broke with Olcott, asserting that Theosophy was "only consolidating Krishna worship" and that since "theosophy enunciates the existence of the Great Lifegiver, the fundamental identity of all souls with the Universal Soul, emanation of souls from the Central Logos, etc.," it was not Buddhist (quoted in Prothero 1996: 167). "To say that all religions have a common foundation only shows the ignorance of the speaker. . . . Dharma alone is supreme to the Buddhist" (172). Further, Dharmapala was incensed by Olcott's suggestion that the famous tooth relic of the Buddha at Kandy was really an animal bone. Olcott, in turn, was disturbed by Dharmapala's encouraging of Sinhalese Buddhists to go on pilgrimages and attend festivals (Obeyesekere 1976: 239).

Especially after his break with Theosophy, Dharmapala was often vitriolic in his discussions of other religions, vilifying Christianity, Judaism, and Islam. His critiques frequently used terms of opposition common to European and American literature of the time-civilized versus primitive, Aryan versus Semitic. Such oppositions were used to advance the idea that "Semitic religion," be it Christianity, Judaism, or Islam, was archaic, prescientific, and "unsuited for a civilized Aryan community" (Dharmapala 1965:400). "The Semitic religions,"he claimed, in contrast to Buddhism, "have neither psychology nor a scientific back ground" (439). Thus the scientific rhetoric he first deployed to establish harmony with other religions later became a tool for espousing the superiority of Buddhism and the backwardness of other traditions. No longer concerned with allying himself with liberal Christians as he had at the Parliament, he portrayed Jesus as a "personality of an irritable temper" whose "turbulent behavior at the temple . . . aroused the passions of the mob" and who preached

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2008

