

# **A Spectrum of Worlds**

**Edited with Introduction  
and Notes by**

**Thomas D. Clareson**

Doubleday Science Fiction



## A SPECTRUM OF WORLDS







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Edited with an introduction and notes

by **THOMAS D. CLARESON**

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## A SPECTRUM OF WORLDS

From Henry Fielding to Anthony Burgess, the writer of modern fiction has responded immediately—often topically—to the quality of experience that he has encountered in the world around him. From the first he has concerned himself with the interplay of the individual and society, set against the backdrop of the natural and moral universe, and has pronounced judgment upon the condition of man as he has witnessed it. To do so, he has created a wide spectrum of worlds that do not exist other than in his narratives. They range from Jane Austen's *Highbury*, Sinclair Lewis's *Zenith*, and Mark Twain's *Hannibal* to Lewis Carroll's *Wonderland*, H. G. Wells's *Island of Dr. Moreau*, and George Orwell's *Oceania*.

Modern fiction, especially in the form of the novel, emerged in the eighteenth century. Its creators followed the cue afforded them by the interest in experimentation and close observation which had already led to the founding of the Royal Society in the seventeenth century. As a result, the dominant tradition in modern fiction—at least from Richardson onward—has concentrated its attention upon groups of characters placed in settings that approximate the everyday scene as closely as language permits. The increasing social consciousness of the nineteenth century, as well as the insistence that fiction deal with the "real" world in order to have didactic significance, led to a continuation of this emphasis in the major Victorian novels, while the rise of literary realism and naturalism at the end of the century only intensified the demand for verisimilitude. As I have pointed

out in "SF: The Other Side of Realism," in America, William Dean Howells, for example, called for "a devoted fidelity to particulars" and asserted that "the business of the novelist is to make you understand the real world through his faithful effigy of it." (Ironically, Howells himself produced two utopian fictions and two volumes of stories in which the psychologist Wanhope explained the ghostly experiences of his friends in terms of the psychological theories of the day.) His theory reflects the despair of Howells' generation in the face of the concept of determinism, with its implications of a meaningless universe in which man is just another example of Earth's fauna. That despair has been best measured by such symbolic statements as Henry Adams's "The Virgin and the Dynamo" in his *The Education of Henry Adams*.

With regard to fiction, it is as though many of these writers, deprived of the traditional values and mythic bases of literature, turned, consciously or unconsciously, with the scientist to the material world. It is as though they believed that world to be a singular reality and that through "a faithful effigy" they could somehow capture that reality in fiction. In a sense they gave up an absolute moral world in favor of an absolute material world. In this they may well have fallen victim to the intellectual turmoil of their time. (Again there is irony, for even at that moment such scientists as Bohr, Planck, Roentgen, Rutherford, and the Curies dissolved that material world into the ceaseless exchange of matter and energy of modern physics. Small wonder that some writers turned at once to such areas as anthropology and such psychologists as Jung and Freud in an attempt to regain traditional, mythic frameworks for their art.)

In so emphasizing verisimilitude, early realism and naturalism elevated a means to an end. Its practitioners seem to have mistaken the word for the object. Yet from the turn of the century, perhaps in the United States especially, they have turned to an ever-closer rendering of everyday life. With the advent of "psychological realism," they downgraded action (plot) in favor of close scrutiny of their characters' psychological experience. (One



result has been the ever-increasing attention given by writers and critics alike to such themes as alienation and isolation; another, the recent attacks of such men as Robert Scholes upon the premises of realism.) Whether the individual writer has marooned his protagonist amid the forces of a hostile external nature or in the interminable flux of his consciousness, the end has been the same: the diminution of the breadth of fiction's stage and the appearance, finally, of the long-gestating anti-hero. Yet so strong has been the influence of realism and naturalism upon the bulk of twentieth-century fiction that many readers and some critics regard its facsimile of our commonplace experience as the only viable world that fiction can and should create.

Such a view is hopelessly parochial. It overlooks so much:

1) Fiction is never an objective record. Wayne Booth has emphasized that the author is never absent from his narrative. Unlike the scientist or the journalist, the writer of fiction is not given his materials. He fabricates imaginary worlds which will express his reaction to the quality of experience as he sees it about him. Fiction thus becomes the projection of an individual perception of order or disorder; it is, therefore, intensely subjective, highly selective. That is to say, for example, no one but Dickens could have written his novels because no one "saw" London as he did; no one else could have transformed Britain into his particular metaphor, *Bleak House*. Only Hardy could create Wessex; only Faulkner, Yoknapatopha County; only James Branch Cabell, Poictesme.

2) Coleridge's principle of the "willing suspension of disbelief" points out that any imaginary, literary world must be bulwarked with sufficient familiar, "realistic" detail to permit the reader to accept it and participate in it, if only as an observer. One thinks immediately of his *The Ancient Mariner*, with its wedding and wedding guest used to frame the tale of the obsessed mariner.

3) Most important, the long tradition of fantasy has never been absent from modern fiction. In 1965, citing Franz Kafka and Joseph Heller among others, Edwin Berry Burgum wrote that "the rise of the novel of fantasy is the most noteworthy innova-

tion in fiction throughout the Western world."<sup>1</sup> What he found was not so much innovation as it was a matter of the degree to which fantasy has become a major ingredient of contemporary fiction. As Lionel Stevenson has pointed out, "By the middle of the twentieth century the two elements of fantasy and realism had become . . . thoroughly reconciled." He explained that his *Purveyors of Myth and Magic*—the first detailed examination of such British writers as Algernon Blackwood, E. R. Eddison, M. R. James, M. P. Shiel, and Arthur Machen in a standard history of the novel—"has been included to demonstrate the vitality with which symbolism and the supernatural survived during the decades when realism was nominally in the ascendancy."<sup>2</sup>

If realism-naturalism has created the dominant world of modern fiction, fantasy has created no less vital ones. Throughout Western literature, from the Icelandic sagas, for example, through Malory and Swift to Poe and Tolkien, fantasy has continued an unbroken literary tradition, taking its form from the beliefs and concerns of each age. The epic poems, like *The Odyssey* and *Beowulf*, etched a mythic world, celebrating the actions of hero-kings who overcame gods and demonic beings even as they themselves personified the virtues of their societies. The medieval romances of King Arthur enshrined the love of women and chivalric gallantry and courage in order to characterize an ideal society worthy of questing for the Holy Grail. The fable anthropomorphized Chanticleer and Reynard in order to vivify some maxim, while the fairy tale garbed virtue with tinsel and candied palaces and embodied good and evil in a thousand enchanted forms. Even in the medieval period so important were the "travel books" and such imagined lands as the Kingdom of Prester John that the authenticity of such accounts as those of Sir John Mandeville and Marco Polo were long debated.

These were the fantasies of an agrarian, hierarchical, warrior

<sup>1</sup> Burgum, Edwin Berry, "Freud and Fantasy in Contemporary Fiction," *Science and Society*, 29 (Spring 1965), pp. 224-25.

<sup>2</sup> Stevenson, Lionel, "Purveyors of Myth and Magic," *Yesterday and After: The History of the English Novel* (New York: Barnes & Nobel, 1967), p. 154.

society. Moreover, despite the tumult of the Reformation, this was a Christian world whose stable cosmology saw Earth at the center of the celestial spheres, whose mythos was framed by the Fall and the Last Judgment, and whose attention was focused upon the City of God. As a result, the worlds of their fantasies dealt either with the heroic past, as in the Arthurian Cycle; with unspecified (generalized) time and place, as in the fables and fairy tales; or with the recent past, as in the travel books, thereby allowing the travelers time to return to Europe to give their accounts of their adventures. Except for the matter of salvation, there was little or no concern with the future as such because the future moved inexorably toward a final destination: Judgment Day. Certain settings, like Camelot, assumed importance, but more often setting remained unspecified: the forest, the villages or towns, the castles. Few, if any, characters were individualized in any modern sense despite the concept of the humors; they represented Mankind, Everyman, the Ideal King, the Perfect Knight, and so on. They gained identity from their places in the social hierarchy and, more important, from their actions, as these were measured against the ideals and Christian morality of the society. The fictions, at their best, either moved toward mythic proportion, as in the Arthurian Cycle, or, as in Spenser's *The Faerie Queen* and Bunyan's *The Pilgrim's Progress*, built upon the tension between familiar detail and allegory, with its meanings in the story, on earth, and in heaven.

Not until after the Renaissance intensified man's interest in exploration of the physical world and, through Copernican theory, changed man's concept of astronomy did modern fantasy begin to emerge. Sir Thomas More raised the island world of *Utopia*, and Sir Francis Bacon envisioned *The New Atlantis* in order to advance favorite ideas and thereby criticize their society. Bishop Francis Godwin and Cyrano de Bergerac sent their protagonists to the moon. Only a few, however, like Kepler in *Somnium*, displayed a fundamental interest in the new astronomy; for most the moon provided merely another vantage point from which to discern the faults of Europe. So strong was the inherited

metaphor of the spheres that not until George Tucker, writing as Joseph Atterley, published *A Voyage to the Moon* in 1827 did an author emphasize that his travelers must cross an airless, bitterly cold void before reaching their destination. Meanwhile, in 1820, in the utopian *Symzonia*, John Cleves Symmes had revived what was to become one of the most popular settings used throughout the century: the world within the hollow Earth, reached only through polar openings. It influenced Poe profoundly and has survived into this century in such permutations as Edgar Rice Burroughs' *Pellucidar*.

Utopia and the "imaginary voyage": one cannot overestimate their importance to modern fantasy. In combination they gave it its chief literary form at least through the nineteenth century. And if utopia has now been transformed into dystopia, the voyage remains the dominant narrative framework even in the contemporary period. Utopia, whether satirical or not, gave eighteenth- and nineteenth-century fantasy its substance. It provided the model of an alternative society, and it measured man's social awareness as he moved toward the secular, humanistic stance of modern times. The voyage frame fulfilled Coleridge's dictum. It allowed the traveler to depart from a familiar scene, encounter the disparate "world," and return to tell of it. If he did not return, it became a matter of convention to discover the manuscript relating his adventures. So long as men had not walked the ends of the Earth, either method gave the imagined world adequate credibility.

In 1763 Samuel Madden had published *The Reign of King George VI 1900-1925*, "the first major forecast of its kind," initiating those portraits of a future world which have become so important to modern fantasy as a "dominant device" by which to comment upon society and predict possible patterns of development.<sup>3</sup> Madden, however, simply projected the eighteenth-century political structure to 1925, concentrating upon a series of wars which saw Britain emerge triumphant over the other

<sup>3</sup> Clarke, I. F., "The First Forecast of the Future," *Futures*, 1 (June 1969), pp. 325-30.

monarchies. The anonymous *Anticipation; or, The Voyage of an American to Britain in the Year 1899* (1781) did predict the decline of Britain, while Mary Shelley's *The Last Man* (1825) told of the abdication of the last English king in the twenty-first century just before a plague swept the world, thus leaving Mrs. Shelley the chance to focus upon the despair of the last man alive. Significantly, none of these foresaw the Industrial Revolution. In contrast, Louis Sébastien Mercier's *Memoirs of the Year Two Thousand Five Hundred* (1771; America, 1795) portrayed a Paris transformed by science and invention, while Mrs. Mary Griffith's "Three Hundred Years Hence," the first story in her *Campersdown; or, News from Our Neighborhood* (1836), envisioned a world in which all the social advancements resulted from technological achievements (with an assist from women's liberation). These two set the pattern for later portraits of future worlds; in casting utopia into the future, they very well reflect J. O. Bailey's insight that utopia "shifted from a place to be found to a condition to be achieved,"<sup>4</sup> for in each case it was the narrator's own society which had attained perfection. The two set another pattern: they introduced the dream or suspended animation as the method by which the narrator traveled to the future.

Within two years of Madden's speculations, the Gothic began its incursion into Middle Europe to terrify virtue with spectre-infested castles, but soon sought the reinforcement of such mythic figures as the Wandering Jew. Because of the reaction of the Romantics to the long debate on epistemology, however, the Gothic ended in the study of hallucinated minds sinking into madness, as best exemplified in the works of Poe. This world of distortion, terror, and estrangement, reaching perhaps its finest expression in *The Narrative of A. Gordon Pym*, was the third world that modern fantasy created, and its tone has never been completely absent from subsequent fiction. In addition, Mary Shelley's *Frankenstein* (1818), in which she combined an emphasis upon abnormal states of mind with social criticism—a plea

<sup>4</sup> Bailey, J. O., *Pilgrims Through Space and Time* (New York: Argus Books, 1947), p. 26.

for the individual, introduced a theme which may well have given final form to the first distinctly modern myth. Whatever her literary indebtedness—Prometheus, Adam, Faust—in her story of the scientist who rejected and was destroyed by the “monster” of his own creation, Mrs. Shelley gave modern dress to a myth which fascinated the nineteenth century, informs many of the contemporary dystopias, has spawned the figure of the “mad” scientist—now largely a cliché—and has gained recent expression in the film *2001: A Space Odyssey* in the character of the robot Hal.

Such examples may illustrate that fantasy has been as much a part of modern fiction as has realism. Often the two flowed together because of the need to make the imaginary worlds credible. These examples may also suggest that just as science did much to determine the focus of the realistic mode, even as early as the eighteenth century, so, too, did it transform much of the fantasy. Specifically, it created its newest form—the fantasy of a scientifically oriented culture—science fiction.

Emerging from the Gothic shadows in the works of such men as Poe and FitzJames O'Brien, making use of such established forms as the imaginary voyage and the utopia, science fiction crystallized, *quantitatively*, as a distinctly separate genre within fantasy as a direct result of the almost overwhelming impact that scientific theory and speculation and technological advancement had upon the literary and popular imaginations during that single generation when men like Edison, Bell, Marconi, Ford, Tesla, and the Wright brothers broadened and accelerated the achievements of the Industrial Revolution. Seemingly overnight they gave the Western nations basic new forms of power, communication, transportation, and weaponry, for example, from which our present society has developed exponentially. (We often forget that, as Allyn B. Forbes pointed out in 1927, even before World War I industrialization had “reached such large dimensions as to be the greatest single determining factor in all phases of American life.”)<sup>5</sup>

<sup>5</sup> Forbes, Allyn B., “The Literary Quest for Utopia, 1880–1900,” *Social Forces*, 6 (December 1927), p. 180.

Each new theory (Schiaparelli's *canali* of Mars, Ignatius Donnelly's "antediluvian" Atlantis) and each new mechanical device (the "airship") was picked up at once by the writers. The innovations in criminology and police work, for example, brought forth the "scientific detective" as early as 1910 in Edwin Balmer and William MacHarg's *The Achievements of Luther Trant*. Electricity and aluminum were heralded until radium and atomic energy took the focus of attention, and there was always some as yet unconquered primal force, such as *celestium* in Stewart Edward White's *The Mystery* (1907), which would power all machines, end all war, and fulfill the medieval dream of transmutation of metals. Inventors, scientists, and medical men took their places as heroes of popular fiction. Innumerable protagonists set out upon quests for the "ultimate" metal, the "ultimate" weapon, and the "ultimate" energy. A body of juvenile literature sprang up: boy-inventors like Frank Reade, Jr., Tom Swift, and Tom Edison, Jr., ("nephew of a certain learned savant") developed machine after machine with which to explore the world and bring aid and comfort to persons upholding virtues strangely reminiscent of those of Horatio Alger's country folk and city waifs. Nor for the most part did these accomplishments take place in the far-distant future; they happened this week, this month, this decade, this generation—*here and now*. This phase of science fiction was, in short, the literary response of the enthusiasts of the new science and technology. Its writers served as the spokesmen for all those who dreamed of an imminent "Machine-Made Millennium," an earthly paradise.

Now wonderful machines, some seeming to anticipate—in purpose at least—inventions which have been realized since the 1870s, had existed in fantasy as early as Bacon's *The New Atlantis*, but they never held the center of the author's attention, even in most of the utopias which flourished at the end of the nineteenth century. (Indeed, Garrett P. Serviss exemplifies the cavalier attitude of many authors toward the inventions and his readers when he remarks in *Edison's Conquest of Mars* (1898): "It would carry me into technical details that would hardly interest the

reader to describe the mechanism of Mr. Edison's flying machine.")<sup>6</sup> The machines remained peripheral, a part of the stage props, a convention indicating the advanced status of the civilization described.

In England, already through the iron-and-coal stage of the Industrial Revolution by mid-century, the machine had been viewed ambiguously at best. Carlyle had early thundered against it. (In America, Emerson and Thoreau were among those who joined him.) It had become, in the eyes of many, a symbol "for what may best be called the scientific habit of mind, the desire to reduce the complex operations of the natural world, of society, and of the psyche to a few, quantitative laws."<sup>7</sup> Thus it does not exaggerate to say that the enthusiasm for the new technology was predominantly, if not exclusively, American, perhaps because the transformation occurred so quickly and involved so many facets of daily experience. One has only to turn to the popular journals like *Cosmopolitan* and *Popular Science* to learn how avidly the American public gave its attention to the innovations. It was, undoubtedly, the day of the engineer.

Together with those utopias, like Chauncey Tinker's *The Crystal Button* (1891) and Hugo Gernsback's *Ralph 124C 41* (1911), which described future societies perfected by science, these stories of "wonderful inventions" and "wonderful discoveries" form the core to which many present-day enthusiasts of science fiction turn when they speak of the origins of *true—of modern—science fiction*. These, they insist, emphasize plausibility/probability and extrapolate from "inventions which are logical outgrowths of those currently in use or logically developed from currently accepted theories." One sees, obviously, that this is the view of

<sup>6</sup> Serviss, Garrett P., *Edison's Conquest of Mars* (Los Angeles: Carcosa House, 1947), p. 7. First serialized in 1898 in the *New York Evening Journal* as a sequel to Wells's *The War of the Worlds*.

<sup>7</sup> Sussman, Herbert L., *Victorians and the Machine: The Literary Response to Technology* (Cambridge, Mass.: Harvard University Press, 1968). Emphasizing such individual British authors as Dickens, Ruskin, Morris, Wells, and Kipling, Sussman has produced an excellent account of the context from which science fiction emerged.



those who would emphasize the *science* rather than the fiction in science fiction, and, indeed, it identifies one side in the critical controversy taking place among sf enthusiasts at the present time. Moreover, it is to such stories that those critics and enthusiasts turn when they speak of the predictive quality of sf: that is, of science fiction as a literature of prophecy. No one would deny them their view; yet to limit science fiction in this manner ignores the scope and diversity of its response at the turn of the century to other areas of science, chief among them archeology, geology, paleontology, and astronomy. One can best measure that diversity by noting the motifs that emerged within the genre and pointing out their survival into the contemporary period:

1) *the future war*: as a literary response to the pressures of the period, science fiction gained its widest initial impetus from this motif. The armaments race in Europe, the new military technology, and the division of Africa and Asia into spheres of influence brought *Voices Prophesying War*.<sup>8</sup> Hardly had the debacle of the Franco-Prussian War ended before Sir George Tomkyns Chesney issued *The Battle of Dorking*, a forecast of German invasion of England, as propaganda in favor of preparedness. Europe responded prolifically. The motif came to American literature in Frank Stockton's *The Great War Syndicate* (1889), and by the eve of U.S. entry into World War I, her citizens were resisting the invasions of German hordes, as in Cleveland Moffett's *The Conquest of America* (1916). It survived through the 1930s when the monthly installments of such pulp magazines as *Operator 5* and *Dusty Ayres and His Battle Birds* depicted invasions of the continental United States by the "yellow horde." It has figured in many of the contemporary dystopian visions; most significantly, it has recently fused science fiction and the "realistic" mode with accounts of the threat of nuclear war in novels like *Fail Safe* and *The Tashkent Incident*;

2) *lost race; lost world*: quantitatively the largest and most

<sup>8</sup> Clarke, I. F., *Voices Prophesying War* (London: Oxford University Press, 1966). A study of the so-called "future war" motif, this must serve as a model example of the kind of work needed in the field of science fiction.

popular motif, both in Britain and America, at the turn of the century, it grew out of the fascination both with the earth's past and with current exploration. The Arctic or Antarctic, Africa or the Americas, or some island remnant of the "Edenic" continent provided a haven for the last survivors of some ancient, noble race like the Carthaginians, Romans, Egyptians, Norsemen, Mayans, or the descendants of the Atlanteans. It served first as a vehicle for the debate on socialism, but it became one narrative frame for the new primitivism, as in Albert Bigelow Paine's *The Great White Way* (1901), whose protagonist rejects the materialism of the modern world in favor of "The Land of Heart's Desire," a flower-strewn valley deep in Antarctica. In the hands of individual writers, it served special interests, as in Will N. Harben's *The Land of the Changing Sun* (1904), which argues for a world-wide eugenics program, or John Uri Lloyd's *Etidorpha* (1895), which violently attacks science, especially biology. Sir H. Rider Haggard transformed the motif with *She* (1885); thereafter, the motif more and more forsook topical controversy in favor of the love story of some intrepid and gallant explorer/naval officer and an exotic queen or priestess of an ancient civilization. Made more incredible by the fuller exploration of earth, the motif has nevertheless survived to add the term *Shangri-La* to our vocabularies;

3) *the interplanetary voyage*: Mark Wicks's *To Mars Via the Moon* (1911) perhaps most vividly exemplifies the schizophrenia of the motif during the period, for its first half reads like an astronomy textbook—as Wicks explicitly hoped it would—but it then dissolves into a mysticism in which the Martians are reincarnated earthmen; in short, Mars is Heaven. The motif became the special province of those who would reconcile traditional religion and science. They seized upon the Martian controversy, with its implications of a highly developed civilization, as evidence substantiating John Fiske's concept of parallel and progressive evolution. Yet the idiom came from Mme. Blavatsky and Theosophy. Mysticism ran rampant on the planets; all the worlds were linked spiritually; and man, through successive rein-

incarnations, might yet advance onward and upward to perfection, if not Nirvana. Some asserted that the next step in evolution must be the perfection of the soul. The desperation of their argument becomes fully apparent when James Cowan, in *Daybreak: The Story of an Old World* (1896), expressed his certainty that Christ must be incarnated on every planet so that all may be saved. Interestingly, as many "voyages" were accomplished by transmigration as by spaceship. Although never free entirely of mysticism, some of the interplanetary voyages—undoubtedly influenced by Haggard—chose to recount the love story of an Earthman and an exotic heroine from Mars or Venus, as did Gustavus W. Pope's *A Journey to Mars* (1894), Garrett P. Serviss' *A Columbus of Space* (1911), and Edgar Rice Burroughs' *A Princess of Mars* (1912). Once transferred to the specialist magazines after 1926, the motif became and has remained the essential core of science fiction;

4) *prehistory*: many writers who could not find reconciliation in outer space turned to prehistory. On the one hand, they attempted to fit what they regarded as new data into the context of traditional myth. Some raised the towers of Atlantis herself to find a "mother" continent; others conjured up pre-Columbian America. *The Book of Algoonah; being a Concise History of the Early People of the Continent of America known as Mound Builders* (1884) identified the Mound Builders as a people from the Egyptian-Assyrian milieu who deliberately emigrated to America; J. A. Knowlton's *Origin* (1900) tied the American Indians to the Noachian deluge. The protagonist of Frona Eunice Wait Colburn's *Yermah the Dorado* (1897), though "neither Krishna nor the Christ," was yet "the Ideal Man of all time, and of all people. He was LOVE." (These novels were most popular during the same period which saw numerous historical novels dealing with biblical times.) On the other hand, such men as Austin Bierbower attempted to explain the traditional myths in terms of a new scientific context; in his *From Monkey to Man; or, Society in the Tertiary Age* (1894), he dramatized the struggles between the ape men and the snakes, thereby solving the

identification of the snake as a symbol of evil, and described how glaciers drove the ape men from their valley in northern Europe, thereby solving the loss of Eden. Such speculations did not long endure. Instead, Stanley Waterloo's *The Story of Ab: A Tale of the Time of the Cavemen* (1897), Jack London's *Before Adam* (1906), Charles G. D. Roberts' *The Morning of Time* (1919), and Irving Crump's *Og—Son of Fire* trilogy (1922–35) sought to capture that moment when a single individual, because of his higher intelligence, transformed the beast into the first man. As the possibility of an historical “mother” continent and the obsession with the “missing link” have lessened in the face of scientific findings of the twentieth century, so has interest in this motif lessened; yet recently William Golding focused brilliantly upon Neanderthal Man, while the British novelist, Jane Gaskell, has devoted a trilogy to Atlantis;

5) *the utopia*: although both the “lost race” and “interplanetary voyage” motifs made use of utopian settlements, Edward Bellamy's *Looking Backward* (1888) may well typify the utopias of the end of the century, partly because it was so influential, precipitating innumerable responses that defended or attacked his position. As noted, with few exceptions, the utopias gave only peripheral notice to science and technology, though assuming that they made possible the upward progress of society. The central issue remained the debate on socialism and economics. So frequently did writers make use of the second millennium as a vantage point from which to criticize the late nineteenth century that in 1903 William Wallace Cook wrote a parody, *A Round Trip to the Year 2000*, in which he caricatured specific utopists and made fun of their idealistic journeys. World War I brought an eclipse to the utopian vision; Austin Tappan Wright's *Islandia* (1942), B. F. Skinner's *Walden Two* (1948), and Aldous Huxley's *Island* (1962) remain perhaps the most notable recent examples. (Nor should one forget that in such novels as Jack London's *The Iron Heel* (1907) and George Allen England's *The Air Trust* (1915) occurred the first glimpses of dystopia, always phrased in terms of a socialist revolution against the monopolies.);

6) *wonderful inventions; wonderful discoveries*: as noted, this motif became the special province of those who celebrated the new technology. Jules Verne, enchanted by the new "gadgetry" on the drawing boards, typified and to some extent gave early form to the motif. Yet one must remember that even in Verne, the invention—usually a means of transportation—most often served as a point of departure for a journey—an exploration—which sought an unexplored part of the world and provided detailed information about such sciences as geology, biology, and astronomy. In a way, the motif expressed not only a sense of wonder toward science, but also a sense of wonder toward the world itself. Once transferred to the specialist magazines, the inventions and discoveries became little more than conventions making possible further voyages;

7) *catastrophe*: the last motif to develop fully, the "catastrophe" provides the clearest bridge between the early and contemporary periods of science fiction. H. G. Wells gave it its archetypal form, and his *The War of the Worlds* (1898) must stand as its masterpiece, though such of his stories as "The Star" more clearly state the earliest central theme: some *natural* catastrophe threatens to destroy the world. (Nor should one forget that simultaneously literary naturalism made the world man's chief antagonist.) Jack London's *The Scarlet Plague* (1915) reduces civilization to barbarism from which there is no escape, but Conan Doyle's *The Poison Belt* (1913), M. P. Shiel's *The Purple Cloud* (1929), and John Wyndham's *The Day of the Triffids* (1952) are among those which use disaster for therapeutic effect, as Wells did in "The Star," for after the danger has passed, a finer society evolves, or at least man realizes that he has a second chance and must do better this time. In its first major variation, the motif permitted the greatest idealization of the scientist. Hero he was. In the face of "ultimate" catastrophe, he became the savior of the world: by preventive action, as in Garrett P. Serviss' *The Second Deluge* (1912), in which he built an ark to save a chosen few (no lawyers!) from a watery nebula which inundated Earth; by begetting a new line of humanity in a world devastated by cataclysm,

as in George Allen England's *Darkness and Dawn* trilogy (1914); or by building a spaceship and leading a chosen few to another planet even as Earth is destroyed, as in Edwin Balmer and Philip Wylie's *When Worlds Collide* (1933). The second major variation did not assume importance until after World War II with such novels as Aldous Huxley's *Ape and Essence* (1948): then the disaster became man-made. Whatever its nature—sudden and violent or not—and whatever the narrative focus, this variation has served the dystopian mood which has increasingly infused science fiction during the past quarter century.

When one has read a number of the titles published before World War I, he realizes how thin the texture of the imagined worlds is in many of them. There are exceptions, of course: Jack London, Conan Doyle, and Stewart Edward White set themselves apart. But the majority had axes to grind, particularly perhaps in the utopias and interplanetary voyages, with their economics and theology. In arguing topical matters that have become dated, the writers produced veritable essays embroidered by a thin fabric of narrative. Edward Bellamy, because of the wide influence of *Looking Backward*, may serve as an outstanding example. What has been said of the utopists may be said of many others: the writers hoped to make their ideas more attractive to a wider audience by presenting them in the guise of fiction. For polemical argument, the enthusiasts, like Gernsback, substituted descriptions of gadgetry, but the effect was the same. One may generalize that the writers of the period did not realize (and often did not attempt to realize) the potential of their fictional worlds. They stressed the ideas, not the quality of experience. In doing so, they helped identify science fiction with the didactic tradition and laid the foundation of its reputation as a literature of prophecy. During the period they added only one other model to the spectrum of worlds they might consider: that of prehistory. But, as shown, it became another vehicle for the reconciliation of traditional belief and scientific theory. When it did not, it most often pretended to an epic stage, as in Joseph M. Brown's *Astyanax: An Epic Romance of Ilion, Atlantis, and*

*Amaraca* (1907), in which Trojans, Assyrians, Atlanteans, and "Amaracans" struggled for power in pre-Columbian America. Such extravaganzas foundered because they had no firm basis either in history or myth. Occasionally, in an intellectual milieu that worried about the "missing link" and permitted the Piltdown hoax to offer easy explanation of evolutionary change, such a writer as Jack London, consciously or unconsciously, sought to embody the period's concept of the evolutionary process: the intelligence of his protagonist—and one must recall that at the turn of the century the physical size of the brain was regarded as the essential key to the appearance of the first man—gave him the ability not only to tame fire, invent weapons, and build a canoe, but it also allowed him to know love for woman and recognize the value of male camaraderie—in short, to possess the sensibilities of modern man. He was, in a sense, to be the newest Prometheus.

The single writer of the period who overcame these limitations, at least in his early novels and stories, was H. G. Wells. Robert Silverberg, editor of the recent anthology, *The Mirror of Infinity* (1970), declared that "within a span of twenty years [Wells] systematically conceived and explored each of the major themes of science fiction: the conflict between worlds, the social consequences of great inventions, the voyage in time, the possibility of the world's destruction, the future of warfare, and much more. . . . [He] is the true father of today's science fiction, for it was he who set the canon of subject and technique that most contemporary writers follow."<sup>9</sup> Arthur C. Clarke has echoed the view: "Wells mapped out territory since explored by two generations of science fiction writers."<sup>10</sup> Such praise of Wells brings no disagreement, but it may not pinpoint his accomplishments. True, he did introduce such motifs as the voyage in time, but more important he brought to the already flour-

<sup>9</sup> Silverberg, Robert, "Introduction," *The Mirror of Infinity* (New York & Evanston: Harper & Row, 1970), p. viii.

<sup>10</sup> Clarke, Arthur C., "H. G. Wells and Science Fiction," *Voices from the Sky* (New York: Pyramid Books, 1971), p. 185.

ishing (by 1895) new fantasy the discipline and insight of a trained scientist. For all his gadgetry of which sf enthusiasts have been so proud, he built his early works on biology, not technology. At his finest, in the *Time Machine* (1895), he transformed such concepts as determinism and entropy into the dark, apocalyptic vision of that final, reddened twilight of Earth. He foresaw, as his contemporaries seem not to have done, that the future would transform society, man, and Earth itself and would not be merely a linear extension of the present, moving inevitably onward and upward. Thus his early works made him, as Mark Hillegas, among others, has emphasized, the progenitor of the anti-utopians.<sup>11</sup> In the "Epilogue" to *The War of the Worlds* (1898), he wrote: "It may be that in the larger design of the universe this invasion from Mars is not without its ultimate benefit for men; it has robbed us of that serene confidence in the future which is the most fruitful source of decadence." In the "Epilogue" to *The Time Machine*: "[the time traveler] saw in the growing pile of civilization only a foolish heaping that must invariably fall back upon and destroy its makers in the end. If that is so, it remains for us to live as though it were not so."

But his visions and warnings were lost, by and large, upon the enthusiasts. Although publishers and such mass-circulation magazines as *Argosy* and *All-Story Weekly* continued to publish sf, in 1926, Hugo Gernsback, former editor of *Modern Electrics* and *Electrical Experimenter*, founded *Amazing Stories*, the first magazine devoted exclusively to "scientifiction," as Gernsback called it briefly. He defined the genre as the "Jules Verne, H. G. Wells, and Edgar Allan Poe type of story—a charming romance intermingled with scientific fact and prophetic vision." For his managing editor, whose primary function was to check the accuracy of the science in the stories, he chose the aged son-in-law of Thomas Edison. Science, then, at least in theory, continued to receive the emphasis over fiction.

Although the basic principles of modern rocketry date from the

<sup>11</sup> Hillegas, Mark, *The Future as Nightmare: H. G. Wells and the Anti-Utopians* (New York: Oxford University Press, 1967), p. 4.



early years of this century, space flight did not come to dominate the science fiction imagination until the 1930s. Then, in the American specialist magazines, it provided the writers with a means of expanding the horizons of the dreams they had inherited. E. E. "Doc" Smith set the basic pattern with *Skylark of Space* (written about 1915, published 1928); Edmond Hamilton, John W. Campbell, and Jack Williamson followed his lead. The basic pattern was that of the "space opera": in the far future, young men go out in spaceships to explore distant planets and star systems, do battle with alien hordes, and return victoriously to Earth, from which they patrol and govern wisely and well. Its shadows spilled over into the comics and film serials, giving the public its lasting impression of the genre in terms of Buck Rogers of the twenty-fifth century and Flash Gordon on the Planet Mongo and their diverse TV progeny.

One may well smile. Surely no area of fiction has received more adverse criticism, much of it deserved because the stories were turned out to "action pulp" formulas. Yet just as the "horse opera" sought to give expression to the myth of the American West, so the "space opera" sought to create and express the basic mythic pattern embodied in twentieth-century science fiction. Most simply, these stories would raise to epic proportion the vision of man—*homo sapiens*, essentially unchanged, as he is today—and his technology triumphant throughout the cosmos. They concern themselves with what Robert Silverberg, among others, has called "galactic man." They would see man as a hero in a boundless universe given meaning and order by his intelligence and accomplishments. The difficulty is that the early stories, particularly, remind one of G. A. Henty's Bengal lancers and their ventures into the alien world of India as much as they remind one of the American Westerns; that is to say, the writers adapted old worlds to their own use rather than creating new ones of their own.

But the basic pattern has grown highly sophisticated. The seminal works were those stories by Isaac Asimov which make up his *Foundation* trilogy (1942-49), although the stories which

made up Robert Heinlein's "Future History" series are also important. In his recent *The Universe Makers* (1971), Donald A. Wollheim sketched "The Cosmogony of the Future," outlining a "pattern of premises" from which has evolved "a framework of millions of years to come," any phase of which an individual story may concentrate upon. By noticing certain conventions, its readers can immediately discern its place in the frame. The result has been the creation of a mythos as complex and as familiar to its readers as was that of the Arthurian tales to the readers of the medieval and subsequent periods. No summary can do justice to Wollheim's outline of the future created by science fiction; nevertheless, the eight stages that he suggests are as follows:

- 1) first flights to the moon and the planets of this Solar System;
- 2) "first flights to the stars";
- 3-5) the rise, flourishing, and decline of the "Galactic Empire";
- 6) "Interregnum";
- 7) "the Rise of a Permanent Galactic Civilization";
- 8) "the Challenge to God."<sup>12</sup>

His cosmogony suggests an adaptation by the writers, whether consciously or not, of the cyclic theory of history, particularly since the "Interregnum" involves a fall to barbarism and subsequent loss of knowledge and isolation: in short, an interstellar "Dark Ages." Equally important, those stories dealing with the "Galactic Empire" trace the rise and fall of an interstellar imperialism, usually dominated by Earth, while "a Permanent Galactic Civilization" reflects the same idealism which fostered a League of Nations or a United Nations. In "the Challenge to God"—("The effort to match Creation and solve the last mysteries of the universe.")—one sees another manifestation of the Faustian myth. From such suggestions one may read the sf mythos as a projection of human history and human aspirations onto a larger screen which provides the opportunity to eulogize man and/or criticize present-day society; in this way the cosmos can

<sup>12</sup> Wollheim, Donald A., *The Universe Makers: Science Fiction Today* (New York, Evanston, and London: Harper & Row, 1971), pp. 42-44.

be made to serve writers of sf in the same manner that the projection of a utopia served earlier writers.

The "Galactic Empire" did something essential for science fiction. It freed the writers for the first time from the old voyage and utopian narrative patterns; no longer *must* their travelers return to civilization, to Earth. The writers were freed to create imaginary worlds that bore no explicit relationship to Earth. They thus could develop in great detail individualized worlds capable of sustaining more vivid symbolic statement because of their differences. No better recent example exists than Frank Herbert's *Dune* (1966).

Samuel R. Delany has recently written that by the early 1950s in *Galaxy*, writers could create "whole new systems and syndromes of behavior," without either praising or condemning (that is, without taking a utopian-dystopian bias), but exploring "both the worlds and their behaviors for the sake of exploration . . . an aim closer to poetry than to any sociological fiction."<sup>13</sup> In short, they could inform us of the potential quality and range of human experience.

Nor was the "Empire" the only source that widened the spectrum of worlds. The concepts of time travel, parallel universes, and alternate futures—all could be drawn upon to create new worlds. But the very potential created problems. In 1953 Clifford Simak told an audience of librarians that, deprived of the "ready-made, tailored-to-order background" of the realistic novel, the sf writer must take particular pains to banish the skepticism of his readers regarding "alien concepts" and "unfamiliar background."<sup>14</sup> More recently, in lamenting science fiction's long exile in pulp commercial magazines, Robert Silverberg suggested that while those stories dealt with the voyage for its own sake, this was accompanied by a "retreat from editorial content of any sort, so that the grand voyage of science fiction becomes

<sup>13</sup> Delany, Samuel R., "Critical Methods: Speculative Fiction," *Quark*/1 (New York: Paperback Library, 1970), pp. 192-93.

<sup>14</sup> Simak, Clifford D., "Face of Science Fiction," *Minnesota Libraries*, 17 (September 1953), p. 197.

mere motion for motion's sake, hollow and pointless adventure fiction." Too often readers could become so absorbed/distracted by stage paraphernalia that they ignored or did not even ask for serious thematic content. Too often writers, caught in the mill of the pulps, could fail to take advantage of the potential of the genre for symbolic statement. So it is with all popular fiction. Science fiction's success may be framed by the works of H. G. Wells and Olaf Stapledon, on the one hand, and such individual novels as Frank Herbert's *Dune* and Robert Silverberg's *The Tower of Glass* (1970), on the other.

Yet science fiction might well have remained an isolated magazine genre had it not been for Hiroshima, if only because after Hiroshima, the genre took on a new tone as well as renewing its role as social critic. In America after World War II the publication of *The Bulletin of the Atomic Scientists* measured the distress and anxiety of the scientific community, just as a spate of atomic disaster stories by both science fiction and "realistic" writers measured the reaction of the literary community. For the first time critical attention, at least in the popular press, turned to the genre, as though seeking quick answers to what it did not understand. When no such answers were forthcoming, the so-called "boom" of the early 1950s died. But science fiction had found a new vision: that of dystopia. In *From Utopia to Nightmare* (1962), Chad Walsh, for example, enunciated the judgment which stands at the heart not only of its increased popularity among readers and writers, but also of the critical and academic attention it has received. "The anti-utopian writer," Walsh said, "like his brother the utopian, is free to present in stark essence his particular vision of the nature and destiny of man. . . . the creator of imaginary societies can bring into focus either the ultimate dreams or the ultimate nightmares of the race. . . . I submit that many of the dystopian writers are the prophets of our times. . . . It is the prophetic form of our age."<sup>15</sup> Ray Bradbury, the first sf writer to catch the critical and popular eye de-

<sup>15</sup> Walsh, Chad, *From Utopia to Nightmare* (New York & Evanston, Harper & Row, 1962), p. 135.

spite his sojourn in *Planet Stories*, had already suggested that science fiction gave the writer a chance to create "outsized images" of the problems that face society.<sup>16</sup>

One should not underestimate the importance and influence of such judgments. As science fiction became dystopian in tone, it moved closer to the essentially anti-scientific stance of the bulk of twentieth-century literature and literary criticism. In doing so, it gained at least a limited respectability. The hunt began, so to speak, to find early examples showing that the genre had long had a social consciousness and had criticized the snowballing technology. (It was not unlike the quest for the earliest existentialist.) Such examples were found. Wells's early novels and stories received a wider critical acclaim than they had previously enjoyed. And surely Aldous Huxley's *Brave New World* and George Orwell's 1984 must remain the classic English-language dystopias written before 1950, though one must not forget such others as Eugene Zamiatin's *We*. Thus, just as the writers at the turn of the century had dreamed of an earthly paradise, so, increasingly, have the writers since mid-century been afflicted with the vision of an earthly hell.

That shift in tone has brought about a conflict within the ranks of sf enthusiasts which has centered upon the so-called "New Wave," largely British in origin, exemplified by such men as Brian W. Aldiss and J. G. Ballard, to name only two of the bolder experimenters. Thematically, the debate has taken place between those who are accused of believing the future to be hopeless and those who would cling to the inherited dreams. One editor has suggested that the basic issue is the attempt to insert naturalistic materials into sf, materials that he regards incompatible to the genre. What the ideological battle seems to overlook is that the heart of the quarrel involves the literary quality of the genre as a whole. One extreme view emphasizes that science fiction is a literature of ideas, in which the intellectual play with data and grand ideas must take precedence over all else. Some of them

<sup>16</sup> Bradbury, Ray, "Day After Tomorrow: Why Science Fiction?" *The Nation* (May 2, 1953), pp. 364-67.

would have science fiction do no more than emulate the so-called classic period of the 1940s, forgetting, apparently, how much change sf underwent during that period. The other extreme insists that narrative technique, prose style, texture, the psychological probing of character—these must be the concerns of the sf writer, even if it means the removal from the stories of all scientific materials as they have been presented in the past. In listening to them, one cannot but think of those students who wish a split grade on their themes, one for content and the other for expression. Such a dichotomy simply does not exist: no idea is better than its expression; no expression worth while without intellectual content.

Perhaps the most hopeful indicator of science fiction's future lies in the number of so-called "mainstream" writers who have been attracted to its materials. When one notices this and begins to look for examples, he finds them in increasing number: Sinclair Lewis's *It Can't Happen Here* (1935), C. S. Lewis's *Peregrina* trilogy (1943-46), William Golding's *The Inheritors* (1962), Fletcher Knebel's *Seven Days in May* (1962), Anthony Burgess's *A Clockwork Orange* (1963), John Barth's *Giles Goat Boy* (1966), Michael Crichton's *The Andromeda Strain* (1969), and Ira Levin's *This Perfect Day* (1970), to name only those which have received widest attention.

Twentieth-century fiction ranges from Marcel Proust to Par Lagerkvist; from James Joyce's *Ulysses* to Robert Penn Warren's *Meet Me in the Green Glen*; from Conan Doyle's *The Lost World* to R. A. Lafferty's *Arrive at Easterwine*. Yet it fulfills its aesthetic potential only insofar as the author creates a world and peoples it with characters whose experience the reader may somehow share. This function of narrative, whether it be expressed in prose or poetry, lies at the heart of Coleridge's dictum. It insists that fiction deal with the quality of human experience—selected and projected as vividly as language permits. Then we may be able to suspend our disbelief and transcend ourselves: to understand, perhaps, what it would be like to live as another thinking, feeling individual in different circumstances. Only to

the degree that we somehow share the imagined world the author has put before us is fiction effective either as a form of art or as a medium of ideas.

Nor, as Proust and Lagerkvist so well demonstrate, is there a single magic formula—a certain bulk of descriptive detail or a certain quantity of psychological probing which automatically succeeds. Moreover, if fiction does not escape mere representation, it quickly dates and is forgotten on a bookshelf. Who now reads G. P. R. James, Harrison Ainsworth, or Bulwer Lytton but students of the novel or the nineteenth century, if even they? Who reads Joseph Hergesheimer or David Graham Phillips? So it is with much of the science fiction of the late nineteenth or early twentieth century; so, too, with countless realistic, “clinical” reports of adultery in the suburbs which were yesterday’s best sellers.

One cannot say that science fiction came magically to maturity through the influence of a certain writer or editor and therefore must be read. Instead, one must note that its writers have had opportunity to create a wide spectrum of worlds in an effort to express their dreams and fears. Acknowledging only this, the reader must go to the individual story, as he goes to any fiction, to share that imagined world and to judge whether or not it reveals anything of the condition of man in the twentieth century.

October 1971

Cape May, New Jersey





## **A SPECTRUM OF WORLDS**



## THE DAMNED THING

Ambrose Bierce

(1893)

### *I. One Does Not Always Eat What Is on the Table*

By the light of a tallow candle which had been placed on one end of a rough table a man was reading something written in a book. It was an old account book, greatly worn; and the writing was not, apparently, very legible, for the man sometimes held the page close to the flame of the candle to get a stronger light on it. The shadow of the book would then throw into obscurity a half of the room, darkening a number of faces and figures; for besides the reader, eight other men were present. Seven of them sat against the rough log walls, silent, motionless, and the room being small, not very far from the table. By extending an arm any one of them could have touched the eighth man, who lay on the table, face upward, partly covered by a sheet, his arms at his sides. He was dead.

The man with the book was not reading aloud, and no one spoke; all seemed to be waiting for something to occur; the dead man only was without expectation. From the blank darkness outside came in, through the aperture that served for a window, all the ever unfamiliar noises of night in the wilderness—the long nameless note of a distant coyote; the stilly pulsing thrill of tireless insects in trees; strange cries of night birds, so different from those of the birds of day; the drone of great blundering beetles, and all that mysterious chorus of small sounds that seem always to have been but half heard when they have suddenly ceased, as if conscious of an indiscretion. But nothing of all this was noted

in that company; its members were not overmuch addicted to idle interest in matters of no practical importance; that was obvious in every line of their rugged faces—obvious even in the dim light of the single candle. They were evidently men of the vicinity—farmers and woodsmen.

The person reading was a trifle different; one would have said of him that he was of the world, worldly, albeit there was that in his attire which attested a certain fellowship with the organisms of his environment. His coat would hardly have passed muster in San Francisco; his foot-gear was not of urban origin, and the hat that lay by him on the floor (he was the only one uncovered) was such that if one had considered it as an article of mere personal adornment he would have missed its meaning. In countenance the man was rather prepossessing, with just a hint of sternness; though that he may have assumed or cultivated, as appropriate to one in authority. For he was a coroner. It was by virtue of his office that he had possession of the book in which he was reading; it had been found among the dead man's effects—in his cabin, where the inquest was now taking place.

When the coroner had finished reading he put the book into his breast pocket. At that moment the door was pushed open and a young man entered. He, clearly, was not of mountain birth and breeding: he was clad as those who dwell in cities. His clothing was dusty, however, as from travel. He had, in fact, been riding hard to attend the inquest.

The coroner nodded; no one else greeted him.

"We have waited for you," said the coroner. "It is necessary to have done with this business to-night."

The young man smiled. "I am sorry to have kept you," he said. "I went away, not to evade your summons, but to post to my newspaper an account of what I suppose I am called back to relate."

The coroner smiled.

"The account that you posted to your newspaper," he said, "differs, probably, from that which you will give here under oath."

"That," replied the other, rather hotly and with a visible flush, "is as you please. I used manifold paper and have a copy of what I sent. It was not written as news, for it is incredible, but as fiction. It may go as a part of my testimony under oath."

"But you say it is incredible."

"That is nothing to you, sir, if I also swear that it is true."

The coroner was silent for a time, his eyes upon the floor. The men about the sides of the cabin talked in whispers, but seldom withdrew their gaze from the face of the corpse. Presently the coroner lifted his eyes and said: "We will resume the inquest."

The men removed their hats. The witness was sworn.

"What is your name?" the coroner asked.

"William Harker."

"Age?"

"Twenty-seven."

"You knew the deceased, Hugh Morgan?"

"Yes."

"You were with him when he died?"

"Near him."

"How did that happen—your presence, I mean?"

"I was visiting him at this place to shoot and fish. A part of my purpose, however, was to study him and his odd, solitary way of life. He seemed a good model for a character in fiction. I sometimes write stories."

"I sometimes read them."

"Thank you."

"Stories in general—not yours."

Some of the jurors laughed. Against a somber background humor shows high lights. Soldiers in the intervals of battle laugh easily, and a jest in the death chamber conquers by surprise.

"Relate the circumstances of this man's death," said the coroner. "You may use any notes or memoranda that you please."

The witness understood. Pulling a manuscript from his breast pocket he held it near the candle and turning the leaves until he found the passage that he wanted began to read.

## II. *What May Happen in a Field of Wild Oats*

" . . . The sun had hardly risen when we left the house. We were looking for quail, each with a shotgun, but we had only one dog. Morgan said that our best ground was beyond a certain ridge that he pointed out, and we crossed it by a trail through the *chaparral*. On the other side was comparatively level ground, thickly covered with wild oats. As we emerged from the *chaparral* Morgan was but a few yards in advance. Suddenly we heard, at a little distance to our right and partly in front, a noise as of some animal thrashing about in the bushes, which we could see were violently agitated.

" 'We've started a deer,' I said. 'I wish we had brought a rifle.'

"Morgan, who had stopped and was intently watching the agitated *chaparral*, said nothing, but had cocked both barrels of his gun and was holding it in readiness to aim. I thought him a trifle excited, which surprised me, for he had a reputation for exceptional coolness, even in moments of sudden and imminent peril.

" 'O, come,' I said. 'You are not going to fill up a deer with quail-shot, are you?'

"Still he did not reply; but catching a sight of his face as he turned it slightly toward me I was struck by the intensity of his look. Then I understood that we had serious business in hand and my first conjecture was that we had 'jumped' a grizzly. I advanced to Morgan's side, cocking my piece as I moved.

"The bushes were now quiet and the sounds had ceased, but Morgan was as attentive to the place as before.

" 'What is it? What the devil is it?' I asked.

" 'That Damned Thing!' he replied, without turning his head. His voice was husky and unnatural. He trembled visibly.

"I was about to speak further, when I observed the wild oats near the place of the disturbance moving in the most inexplicable way. I can hardly describe it. It seemed as if stirred by a streak of wind, which not only bent it, but pressed it down

—crushed it so that it did not rise; and this movement was slowly prolonging itself directly toward us.

“Nothing that I had ever seen had affected me so strangely as this unfamiliar and unaccountable phenomenon, yet I am unable to recall any sense of fear. I remember—and tell it here because, singularly enough, I recollected it then—that once in looking carelessly out of an open window I momentarily mistook a small tree close at hand for one of a group of larger trees at a little distance away. It looked the same size as the others, but being more distinctly and sharply defined in mass and detail seemed out of harmony with them. It was a mere falsification of the law of aerial perspective, but it startled, almost terrified me. We so rely upon the orderly operation of familiar natural laws that any seeming suspension of them is noted as a menace to our safety, a warning of unthinkable calamity. So now the apparently causeless movement of the herbage and the slow, undeviating approach of the line of disturbance were distinctly disquieting. My companion appeared actually frightened, and I could hardly credit my senses when I saw him suddenly throw his gun to his shoulder and fire both barrels at the agitated grain! Before the smoke of the discharge had cleared away I heard a loud savage cry—a scream like that of a wild animal—and flinging his gun upon the ground Morgan sprang away and ran swiftly from the spot. At the same instant I was thrown violently to the ground by the impact of something unseen in the smoke—some soft, heavy substance that seemed thrown against me with great force.

“Before I could get upon my feet and recover my gun, which seemed to have been struck from my hands, I heard Morgan crying out as if in mortal agony, and mingling with his cries were such hoarse, savage sounds as one hears from fighting dogs. Inexpressibly terrified, I struggled to my feet and looked in the direction of Morgan’s retreat; and may Heaven in mercy spare me from another sight like that! At a distance of less than thirty yards was my friend, down upon one knee, his head thrown back at a frightful angle, hatless, his long hair in disorder and his whole body in violent movement from side to side, backward and forward. His right arm was lifted and seemed to lack the hand—at

least, I could see none. The other arm was invisible. At times, as my memory now reports this extraordinary scene, I could discern but a part of his body; it was as if he had been partly blotted out—I cannot otherwise express it—then a shifting of his position would bring it all into view again.

“All this must have occurred within a few seconds, yet in that time Morgan assumed all the postures of a determined wrestler vanquished by superior weight and strength. I saw nothing but him, and him not always distinctly. During the entire incident his shouts and curses were heard, as if through an enveloping uproar of such sounds of rage and fury as I had never heard from the throat of man or brute!

“For a moment only I stood irresolute, then throwing down my gun I ran forward to my friend’s assistance. I had a vague belief that he was suffering from a fit, or some form of convulsion. Before I could reach his side he was down and quiet. All sounds had ceased, but with a feeling of such terror as even these awful events had not inspired I now saw again the mysterious movement of the wild oats, prolonging itself from the trampled area about the prostrate man toward the edge of a wood. It was only when it had reached the wood that I was able to withdraw my eyes and look at my companion. He was dead.”

### *III. A Man Though Naked May Be in Rags*

The coroner rose from his seat and stood beside the dead man. Lifting an edge of the sheet he pulled it away, exposing the entire body, altogether naked and showing in the candle-light a claylike yellow. It had, however, broad maculations of bluish black, obviously caused by extravasated blood from contusions. The chest and sides looked as if they had been beaten with a bludgeon. There were dreadful lacerations; the skin was torn in strips and shreds.

The coroner moved round to the end of the table and undid a silk handkerchief which had been passed under the chin and knotted on the top of the head. When the handkerchief was



drawn away it exposed what had been the throat. Some of the jurors who had risen to get a better view repented their curiosity and turned away their faces. Witness Harker went to the open window and leaned out across the sill, faint and sick. Dropping the handkerchief upon the dead man's neck the coroner stepped to an angle of the room and from a pile of clothing produced one garment after another, each of which he held up a moment for inspection. All were torn, and stiff with blood. The jurors did not make a closer inspection. They seemed rather uninterested. They had, in truth, seen all this before; the only thing that was new to them being Harker's testimony.

"Gentlemen," the coroner said, "we have no more evidence, I think. Your duty has been already explained to you; if there is nothing you wish to ask you may go outside and consider your verdict."

The foreman rose—a tall, bearded man of sixty, coarsely clad.

"I should like to ask one question, Mr. Coroner," he said. "What asylum did this yer last witness escape from?"

"Mr. Harker," said the coroner, gravely and tranquilly, "from what asylum did you last escape?"

Harker flushed crimson again, but said nothing, and the seven jurors rose and solemnly filed out of the cabin.

"If you have done insulting me, sir," said Harker, as soon as he and the officer were left alone with the dead man, "I suppose I am at liberty to go?"

"Yes."

Harker started to leave, but paused, with his hand on the door latch. The habit of his profession was strong in him—stronger than his sense of personal dignity. He turned about and said:

"The book that you have there—I recognize it as Morgan's diary. You seemed greatly interested in it; you read in it while I was testifying. May I see it? The public would like——"

"The book will cut no figure in this matter," replied the official, slipping it into his coat pocket; "all the entries in it were made before the writer's death."

As Harker passed out of the house the jury reëntered and stood about the table, on which the now covered corpse showed under

the sheet with sharp definition. The foreman seated himself near the candle, produced from his breast pocket a pencil and scrap of paper and wrote rather laboriously the following verdict, which with various degrees of effort all signed:

"We, the jury, do find that the remains come to their death at the hands of a mountain lion, but some of us thinks, all the same, they had fits."

#### *IV. An Explanation from the Tomb*

In the diary of the late Hugh Morgan are certain interesting entries having, possibly, a scientific value as suggestions. At the inquest upon his body the book was not put in evidence; possibly the coroner thought it not worth while to confuse the jury. The date of the first of the entries mentioned cannot be ascertained; the upper part of the leaf is torn away; the part of the entry remaining follows:

"... would run in a half-circle, keeping his head turned always toward the centre, and again he would stand still, barking furiously. At last he ran away into the brush as fast as he could go. I thought at first that he had gone mad, but on returning to the house found no other alteration in his manner than what was obviously due to fear of punishment.

"Can a dog see with his nose? Do odors impress some cerebral centre with images of the thing that emitted them? . . .

"Sept. 2.—Looking at the stars last night as they rose above the crest of the ridge east of the house, I observed them successively disappear—from left to right. Each was eclipsed but an instant, and only a few at the same time, but along the entire length of the ridge all that were within a degree or two of the crest were blotted out. It was as if something had passed along between me and them; but I could not see it, and the stars were not thick enough to define its outline. Ugh! I don't like this." . . .

Several weeks' entries are missing, three leaves being torn from the book.

"Sept. 27.—It has been about here again—I find evidences of its

presence every day. I watched again all last night in the same cover, gun in hand, double-charged with buckshot. In the morning the fresh footprints were there, as before. Yet I would have sworn that I did not sleep—indeed, I hardly sleep at all. It is terrible, insupportable! If these amazing experiences are real I shall go mad; if they are fanciful I am mad already.

“Oct. 3.—I shall not go—it shall not drive me away. No, this is *my* house, *my* land. God hates a coward. . . .

“Oct. 5.—I can stand it no longer; I have invited Harker to pass a few weeks with me—he has a level head. I can judge from his manner if he thinks me mad.

“Oct. 7.—I have the solution of the mystery; it came to me last night—suddenly, as by revelation. How simple—how terribly simple!

“There are sounds that we cannot hear. At either end of the scale are notes that stir no chord of that imperfect instrument, the human ear. They are too high or too grave. I have observed a flock of blackbirds occupying an entire tree-top—the tops of several trees—and all in full song. Suddenly—in a moment—at absolutely the same instant—all spring into the air and fly away. How? They could not all see one another—whole tree-tops intervened. At no point could a leader have been visible to all. There must have been a signal of warning or command, high and shrill above the din, but by me unheard. I have observed, too, the same simultaneous flight when all were silent, among not only blackbirds, but other birds—quail, for example, widely separated by bushes—even on opposite sides of a hill.

“It is known to seamen that a school of whales basking or sporting on the surface of the ocean, miles apart, with the convexity of the earth between, will sometimes dive at the same instant—all gone out of sight in a moment. The signal has been sounded—too grave for the ear of the sailor at the masthead and his comrades on the deck—who nevertheless feel its vibrations in the ship as the stones of a cathedral are stirred by the bass of the organ.

“As with sounds, so with colors. At each end of the solar spectrum the chemist can detect the presence of what are known

as 'actinic' rays. They represent colors—integral colors in the composition of light—which we are unable to discern. The human eye is an imperfect instrument; its range is but a few octaves of the real 'chromatic scale.' I am not mad; there are colors that we cannot see.

"And, God help me! the Damned Thing is of such a color!"

## Notes

On the basis of two volumes of short stories, *Tales of Soldiers and Civilians* (1891)—subsequently retitled *In the Midst of Life—and Can Such Things Be?* (1893), Ambrose Bierce holds a secure, if minor, place in American letters. He continues the tradition of Poe, of course, but to say only this ignores the significant difference in tone between them, as well as glossing over Bierce's particular accomplishments. Poe retained the essential Gothic qualities—note the tone of his description of the House of Usher—so that his settings seem far removed from the ordinary experience of men (and thus don't really have to be accounted for after one finishes the stories). As though to compensate for this, to gain tension and authenticity, he achieved his finest effects through using a first-person narrator so that his readers can more immediately share and explore the terror of hallucination and madness. In contrast, Bierce placed his characters in more familiar settings: a wilderness camp, the Civil War battlefields, the streets of San Francisco. To compensate for the loss of the first-person narrator, he presented the events of the story in the immediacy of here and now scenes, sometimes revealing snatches of his protagonist's thoughts, but more often dramatizing the scene, relying heavily upon the use of dialogue. In this way he fused technique and theme, for throughout his fiction his central concern remained the fear of ordinary men—soldiers and civilians—as the terrible intruded into their commonplace lives.

He helped to transform the traditional ghost story into a "case study" of an "anxious state of mind." To do so, he relied upon the scientific theory of his day, drawing especially upon the concept of racial memory. In "A Watcher by the Dead," although the protagonist acknowledges that "awe" for the dead "is hereditary and incurable," he refuses to surrender to his uneasiness simply because "certain savage ancestors dwelling in caves and burrows conceived the mon-

strous notion that the dead walk by night." In "A Tough Tussle," the protagonist reflects: "I suppose it will require a thousand ages—perhaps ten thousand—for humanity to outgrow this feeling. Where and when did it originate? Away back, probably, in what is called the cradle of the human race—the plains of Central Asia." Yet one dies; the other goes mad—off stage, for Bierce never concerned himself with death or madness *per se*.

Except for "Moxon's Master," a story of an automaton chess player, "The Damned Thing" stands unique among his stories as the only one to draw significantly upon scientific materials outside the field of psychology. It must be judged one of his best, not only because it so well illustrates how his method leaves one with the "fact" of the horror, but also because it exemplifies how well he blended realistic detail and fantasy.

Other invisible creatures had confronted men, as, for example, in FitzJames O'Brien's "What Was It?" and Guy de Maupassant's "Le Horla," but they were left unexplained or were dredged up from folklore. Gothic patterns had prevailed: the focus of attention dwelt upon the violent encounter and the emotions of the protagonist, while a final ambiguity often questioned the protagonist's sanity and, therefore, the actual occurrence of the event. In contrast, Bierce presented his reader with a *fait accompli* so that the entire movement of the story focuses upon the credibility and the nature of "The Damned Thing" itself.

By dividing the narrative into separate scenes, he firmly controlled the sequence of action and the perspective. He could select and order as he chose, alternating between the commonplace and the fantastic while keeping the reader aware that *this* happened in the everyday world. He also gained a multiple perspective that might otherwise have been impossible to attain: the coroner's jury, "farmers and woodsmen" who have a "practical" knowledge of nature but do not notice "all the ever unfamiliar noises of night in the wilderness"; Har-ker, an outsider from the city who is perhaps more storyteller than journalist; and the coroner, a part of the "fellowship" of the rural jury, though he is also "of the world" and a medical man. None of them is more than sketched, for none is himself important, but the reaction of all of them is necessary to the fullest statement of Bierce's theme.

Granted that he achieved his multiple perspective only by twice relying upon the time-worn convention so popular in nineteenth-century fantasy: the "manuscript" telling of bizarre events. But with what a difference! Whereas the traditional frame most often established a remote setting in time past and assured the reader of the probable credibility of the ensuing "strange" tale, Bierce introduced the

device into the dramatic presence of the jury only after he had established the scene here and now. Thus, Harker's account, paralleling the typical Gothic story, is reduced to a mere episode, de-emphasizing the action and taking it off stage. Given under oath though it is named as fiction (which accomplishes the same ends as the assurances of the traditional frame), it is rejected out-of-hand. One suspects that, thematically, Bierce used Harker to suggest the inadequacy of the Gothic to deal convincingly with such an encounter. He also used Harker to remind the reader that "We so rely upon the orderly operation of familiar natural laws that any seeming suspension of them is noted as a menace to our safety, a warning of unthinkable calamity." And Harker refers to his momentarily distorted vision. Both help make acceptable the final revelation, and both point toward the coroner.

For the crucial perspective is that of the coroner. Bierce begins with his "reading something in a book." From the outset the coroner has verification of Harker's tale, but he conceals that evidence, refuses the reporter access to Morgan's diary, and dismisses Harker after joining with the jury foreman to ask what asylum the young man has escaped from. His jests about fiction and its departure from truth underscore his actions. Yet he is "worldly," a medical man. Bierce thus pitted against one another two characters—journalist and medical man—who were among the most popular fictional heroes of the period; both could be relied upon to seek and reveal the truth. But the account of one is rejected, while the other remains silent (and the jury reflects the incredulity of the common man in the face of such events). One suspects that Bierce used the coroner to suggest that science cannot or will not deal with phenomena trespassing "familiar natural laws."

His theme completely stated, Bierce turns to Morgan's diary. It is not a sustained narrative, but fragmentary notes dealing with the creature's appearances. Morgan notes his own reactions almost as an afterthought. Although he mentions madness, he follows immediately with a fully rational explanation. The very difference in style indicates the relaxation of his tension, of his "anxious state." And so Bierce builds to the final revelation of the nature of "The Damned Thing." He leaves the reader with the fact of the horror that intrudes into everyday life.

"The Damned Thing" is a transitional story, important as a bridge between traditional fantasy and the new science fiction. Nor does it matter that the term actinic ray is now used in a much more restricted sense. That does not mar Bierce's originality nor his grasp of the literary potential of the new science.

## THE SEA RAIDERS

H. G. Wells

(1896)

### 1

Until the extraordinary affair at Sidmouth, the peculiar species *Haploteuthis ferox* was known to science only generically, on the strength of a half-digested tentacle obtained near the Azores, and a decaying body pecked by birds and nibbled by fish, found early in 1896 by Mr. Jennings, near Land's End.

In no department of zoological science, indeed, are we quite so much in the dark as with regard to the deep-sea cephalopods. A mere accident, for instance, it was that led to the Prince of Monaco's discovery of nearly a dozen new forms in the summer of 1895; a discovery in which the before-mentioned tentacle was included. It chanced that a cachalot was killed off Terceira by some sperm whalers, and in its last struggles charged almost to the Prince's yacht, missed it, rolled under, and died within twenty yards of his rudder. And in its agony it threw up a number of large objects, which the Prince, dimly perceiving they were strange and important, was, by a happy expedient, able to secure before they sank. He set his screws in motion, and kept them circling in the vortices thus created until a boat could be lowered. And these specimens were whole cephalopods and fragments of cephalopods, some of gigantic proportions, and almost all of them unknown to science!

It would seem, indeed, that these large and agile creatures, living in the middle depths of the sea, must, to a large extent, for ever remain unknown to us, since under water they are too nim-

ble for nets, and it is only by such rare unlooked-for accidents that specimens can be obtained. In the case of *Haploteuthis ferox*, for instance, we are still altogether ignorant of its habitat, as ignorant as we are of the breeding ground of the herring or the seaways of the salmon. And zoologists are altogether at a loss to account for its sudden appearance on our coast. Possibly it was the stress of a hunger migration that drove it hither out of the deep. But it will be, perhaps, better to avoid necessarily inconclusive discussion, and to proceed at once with our narrative.

The first human being to set eyes upon a living *Haploteuthis*—the first human being to survive, that is, for there can be little doubt now that the wave of bathing fatalities and boating accidents that traveled along the coast of Cornwall and Devon in early May was due to this cause—was a retired tea dealer of the name of Fison, who was stopping at a Sidmouth boardinghouse. It was in the afternoon, and he was walking along the cliff path between Sidmouth and Ladram Bay. The cliffs in this direction are very high, but down the red face of them in one place a kind of ladder staircase has been made. He was near this when his attention was attracted by what at first he thought to be a cluster of birds struggling over a fragment of food that caught the sunlight and glistened pinkish-white. The tide was right out, and this object was not only far below him, but remote across a broad waste of rock reefs covered with dark seaweed and interspersed with silvery shining tidal pools. And he was, moreover, dazzled by the brightness of the further water.

In a minute, regarding this again, he perceived that his judgment was in fault, for over this struggle circled a number of birds, jackdaws and gulls for the most part, the latter gleaming blindingly when the sunlight smote their wings, and they seemed minute in comparison with it. And his curiosity was, perhaps, aroused all the more strongly because of his first insufficient explanations.

As he had nothing better to do than amuse himself, he decided to make this object, whatever it was, the goal of his afternoon walk, instead of Ladram Bay, conceiving it might perhaps be a



great fish of some sort, stranded by some chance, and flapping about in its distress. And so he hurried down the long steep ladder, stopping at intervals of thirty feet or so to take breath and scan the mysterious movement.

At the foot of the cliff he was, of course, nearer his object than he had been; but, on the other hand, it now came up against the incandescent sky, beneath the sun, so as to seem dark and indistinct. Whatever was pinkish of it was now hidden by a skerry of weedy boulders. But he perceived that it was made up of seven rounded bodies, distinct or connected, and that the birds kept up a constant croaking and screaming, but seemed afraid to approach it too closely.

Mr. Fison, torn by curiosity, began picking his way across the wave-worn rocks, and, finding the wet seaweed that covered them thickly rendered them extremely slippery, he stopped, removed his shoes and socks, and coiled his trousers above his knees. His object was, of course, merely to avoid stumbling into the rocky pools about him, and perhaps he was rather glad, as all men are, of an excuse to resume, even for a moment, the sensations of his boyhood. At any rate, it is to this, no doubt, that he owes his life.

He approached his mark with all the assurance which the absolute security of this country against all forms of animal life gives its inhabitants. The round bodies moved to and fro, but it was only when he surmounted the skerry of boulders I have mentioned that he realised the horrible nature of the discovery. It came upon him with some suddenness.

The rounded bodies fell apart as he came into sight over the ridge, and displayed the pinkish object to be the partially devoured body of a human being, but whether of a man or woman he was unable to say. And the rounded bodies were new and ghastly-looking creatures, in shape somewhat resembling an octopus, and with huge and very long and flexible tentacles, coiled copiously on the ground. The skin had a glistening texture, unpleasant to see, like shiny leather. The downward bend of the tentacle-surrounded mouth, the curious excrescence at the bend,

the tentacles, and the large intelligent eyes, gave the creatures a grotesque suggestion of a face. They were the size of a fair-sized swine about the body, and the tentacles seemed to him to be many feet in length. There were, he thinks, seven or eight at least of the creatures. Twenty yards beyond them, amid the surf of the now returning tide, two others were emerging from the sea.

Their bodies lay flatly on the rocks, and their eyes regarded him with evil interest: but it does not appear that Mr. Fison was afraid, or that he realised that he was in any danger. Possibly his confidence is to be ascribed to the limpness of their attitudes. But he was horrified, of course, and intensely excited and indignant at such revolting creatures preying upon human flesh. He thought they had chanced upon a drowned body. He shouted to them, with the idea of driving them off, and, finding they did not budge, cast about him, picked up a big rounded lump of rock, and flung it at one.

And then, slowly uncoiling their tentacles, they all began moving toward him—creeping at first deliberately, and making a soft purring sound to each other.

In a moment Mr. Fison realised that he was in danger. He shouted again, threw both his boots and started off, with a leap, forthwith. Twenty yards off he stopped and faced about, judging them slow, and behold! the tentacles of their leader were already pouring over the rocky ridge on which he had just been standing!

At that he shouted again, but this time not threatening, but a cry of dismay, and began jumping, striding, slipping, wading across the uneven expanse between him and the beach. The tall red cliffs seemed suddenly at a vast distance, and he saw, as though they were creatures in another world, two minute workmen engaged in the repair of the ladder-way, and little suspecting the race for life that was beginning below them. At one time he could hear the creatures splashing in the pools not a dozen feet behind him, and once he slipped and almost fell.

They chased him to the very foot of the cliffs, and desisted only when he had been joined by the workmen at the foot of the

ladder-way up the cliff. All three of the men pelted them with stones for a time, and then hurried to the cliff top and along the path toward Sidmouth, to secure assistance and a boat, and to rescue the desecrated body from the clutches of these abominable creatures.

## 2

And, as if he had not already been in sufficient peril that day, Mr. Fison went with the boat to point out the exact spot of his adventure.

As the tide was down, it required a considerable detour to reach the spot, and when at last they came off the ladder-way, the mangled body had disappeared. The water was now running in, submerging first one slab of slimy rock and then another, and the four men in the boat—the workmen, that is, the boatman, and Mr. Fison—now turned their attention from the bearings off shore to the water beneath the keel.

At first they could see little below them save a dark jungle of laminaria, with an occasional darting fish. Their minds were set on adventure, and they expressed their disappointment freely. But presently they saw one of the monsters swimming through the water seaward, with a curious rolling motion that suggested to Mr. Fison the spinning roll of a captive balloon. Almost immediately after, the waving streamers of laminaria were extraordinarily perturbed, parted for a moment, and three of these beasts became darkly visible, struggling for what was probably some fragment of the drowned man. In a moment the copious olive-green ribbons had poured again over this writhing group.

At that all four men, greatly excited, began beating the water with oars and shouting, and immediately they saw a tumultuous movement among the weeds. They desisted to see more clearly, and as soon as the water was smooth, they saw, as it seemed to them, the whole sea bottom among the weeds set with eyes.

"Ugly swinel" cried one of the men. "Why, there's dozens!"

And forthwith the things began to rise through the water about them. Mr. Fison has since described to the writer this startling eruption out of the waving laminaria meadows. To him it seemed to occupy a considerable time, but it is probable that really it was an affair of a few seconds only. For a time nothing but eyes, and then he speaks of tentacles streaming out and parting the weed fronds this way and that. Then these things, growing larger, until at last the bottom was hidden by their intercoiling forms, and the tips of tentacles rose darkly here and there into the air above the swell of the waters.

One came up boldly to the side of the boat, and, clinging to this with three of its sucker-set tentacles, threw four others over the gunwale, as if with an intention either of oversetting the boat or of clambering into it. Mr. Fison at once caught up the boathook, and, jabbing furiously at the soft tentacles, forced it to desist. He was struck in the back and almost pitched overboard by the boatman, who was using his oar to resist a similar attack on the other side of the boat. But the tentacles on either side at once relaxed their hold at this, slid out of sight, and splashed into the water.

"We'd better get out of this," said Mr. Fison, who was trembling violently. He went to the tiller, while the boatman and one of the workmen seated themselves and began rowing. The other workman stood up in the forepart of the boat, with the boathook, ready to strike any more tentacles that might appear. Nothing else seems to have been said. Mr. Fison had expressed the common feeling beyond amendment. In a hushed, scared mood, with faces white and drawn, they set about escaping from the position into which they had so recklessly blundered.

But the oars had scarcely dropped into the water before dark, tapering, serpentine ropes had bound them, and were about the rudder; and creeping up the sides of the boat with a looping motion came the suckers again. The men gripped their oars and pulled, but it was like trying to move a boat in a floating raft of weeds. "Help here!" cried the boatman, and Mr. Fison and the second workman rushed to help lug at the oar.

Then the man with the boathook—his name was Ewan, or Ewen—sprang up with a curse, and began striking downward over the side, as far as he could reach, at the bank of tentacles that now clustered along the boat's bottom. And, at the same time, the two rowers stood up to get a better purchase for the recovery of their oars. The boatman handed his to Mr. Fison, who lugged desperately, and, meanwhile, the boatman opened a big clasp-knife, and, leaning over the side of the boat, began hacking at the spiring arms upon the oar shaft.

Mr. Fison, staggering with the quivering rocking of the boat, his teeth set, his breath coming short, and the veins starting on his hands as he pulled at his oar, suddenly cast his eyes seaward. And there, not fifty yards off, across the long rollers of the incoming tide, was a large boat standing in toward them, with three women and a little child in it. A boatman was rowing, and a little man in a pink-ribboned straw hat and whites stood in the stern, hailing them. For a moment, of course, Mr. Fison thought of help, and then he thought of the child. He abandoned his oar forthwith, threw up his arms in a frantic gesture, and screamed to the party in the boat to keep away "for God's sake!" It says much for the modesty and courage of Mr. Fison that he does not seem to be aware that there was any quality of heroism in his action at this juncture. The oar he had abandoned was at once drawn under, and presently reappeared floating about twenty yards away.

At the same moment Mr. Fison felt the boat under him lurch violently, and a hoarse scream, a prolonged cry of terror from Hill, the boatman, caused him to forget the party of excursionists altogether. He turned, and saw Hill crouching by the forward rowlock, his face convulsed with terror, and his right arm over the side and drawn tightly down. He gave now a succession of short, sharp cries, "Oh! oh! oh!—oh!" Mr. Fison believes that he must have been hacking at the tentacles below the waterline, and have been grasped by them, but, of course, it is quite impossible to say now certainly what had happened. The boat was heeling over, so that the gunwale was within ten inches of the water, and

both Ewan and the other laborer were striking down into the water, with oar and boathook, on either side of Hill's arm. Mr. Fison instinctively placed himself to counterpoise them.

Then Hill, who was a burly, powerful man, made a strenuous effort, and rose almost to a standing position. He lifted his arm, indeed, clean out of the water. Hanging to it was a complicated tangle of brown ropes; and the eyes of one of the brutes that had hold of him, glaring straight and resolute, showed momentarily above the surface. The boat heeled more and more, and the green-brown water came pouring in a cascade over the side. Then Hill slipped and fell with his ribs across the side, and his arm and the mass of tentacles about it splashed back into the water. He rolled over; his boot kicked Mr. Fison's knee as that gentleman rushed forward to seize him, and in another moment fresh tentacles had whipped about his waist and neck, and after a brief, convulsive struggle, in which the boat was nearly capsized, Hill was lugged overboard. The boat righted with a violent jerk that all but sent Mr. Fison over the other side, and hid the struggle in the water from his eyes.

He stood staggering to recover his balance for a moment, and as he did so, he became aware that the struggle and the inflowing tide had carried them close upon the weedy rocks again. Not four yards off a table of rock still rose in rhythmic movements above the inwash of the tide. In a moment Mr. Fison seized the oar from Ewan, gave one vigorous stroke, then, dropping it, ran to the bows and leapt. He felt his feet slide over the rock, and, by a frantic effort, leapt again toward a further mass. He stumbled over this, came to his knees, and rose again.

"Look out!" cried someone, and a large drab body struck him. He was knocked flat into a tidal pool by one of the workmen, and as he went down he heard smothered, choking cries, that he believed at the time came from Hill. Then he found himself marveling at the shrillness and variety of Hill's voice. Someone jumped over him, and a curving rush of foamy water poured over him, and passed. He scrambled to his feet dripping, and, without looking seaward, ran as fast as his terror would let him shoreward.

Before him, over the flat space of scattered rocks, stumbled the two workmen—one a dozen yards in front of the other.

He looked over his shoulder at last, and, seeing that he was not pursued, faced about. He was astonished. From the moment of the rising of the cephalopods out of the water, he had been acting too swiftly to fully comprehend his actions. Now it seemed to him as if he had suddenly jumped out of an evil dream.

For there were the sky, cloudless and blazing with the afternoon sun, the sea weltering under its pitiless brightness, the soft creamy foam of the breaking water, and the low, long, dark ridges of rock. The righted boat floated, rising and falling gently on the swell about a dozen yards from shore. Hill and the monsters, all the stress and tumult of that fierce fight for life, had vanished as though they had never been.

Mr. Fison's heart was beating violently; he was throbbing to the fingertips, and his breath came deep.

There was something missing. For some seconds he could not think clearly enough what this might be. Sun, sky, sea, rocks—what was it? Then he remembered the boatload of excursionists. It had vanished. He wondered whether he had imagined it. He turned, and saw the two workmen standing side by side under the projecting masses of the tall pink cliffs. He hesitated whether he should make one last attempt to save the man Hill. His physical excitement seemed to desert him suddenly, and leave him aimless and helpless. He turned shoreward, stumbling and wading toward his two companions.

He looked back again, and there were now two boats floating, and the one farthest out at sea pitched clumsily, bottom upward.

## 3

So it was *Haploteuthis ferox* made its appearance upon the Devonshire coast. So far, this has been its most serious aggression. Mr. Fison's account, taken together with the wave of boating and bathing casualties to which I have already alluded, and the

absence of fish from the Cornish coasts that year, points clearly to a shoal of these voracious deep-sea monsters prowling slowly along the subtidal coastline. Hunger migration has, I know, been suggested as the force that drove them hither; but, for my own part, I prefer to believe the alternative theory of Hemsley. Hemsley holds that a pack or shoal of these creatures may have become enamored of human flesh by the accident of a foundered ship sinking among them, and have wandered in search of it out of their accustomed zone; first waylaying and following ships, and so coming to our shores in the wake of the Atlantic traffic. But to discuss Hemsley's cogent and admirably stated arguments would be out of place here.

It would seem that the appetites of the shoal were satisfied by the catch of eleven people—for so far as can be ascertained, there were ten people in the second boat, and certainly these creatures gave no further signs of their presence off Sidmouth that day. The coast between Seaton and Budleigh Salterton was patrolled all that evening and night by four Preventive Service boats, the men in which were armed with harpoons and cutlasses, and as the evening advanced, a number of more or less similarly equipped expeditions, organized by private individuals, joined them. Mr. Fison took no part in any of these expeditions.

About midnight excited hails were heard from a boat about a couple of miles out at sea to the southeast of Sidmouth, and a lantern was seen waving in a strange manner to and fro and up and down. The nearer boats at once hurried toward the alarm. The venturesome occupants of the boat, a seaman, a curate, and two schoolboys, had actually seen the monsters passing under their boat. The creatures, it seems, like most deep-sea organisms, were phosphorescent, and they had been floating, five fathoms deep or so, like creatures of moonshine through the blackness of the water, their tentacles retracted and as if asleep, rolling over and over, and moving slowly in a wedgelike formation toward the southeast.

These people told their story in gesticulated fragments, as first one boat drew alongside and then another. At last there was a



little fleet of eight or nine boats collected together, and from them a tumult, like the chatter of a marketplace, rose into the stillness of the night. There was little or no disposition to pursue the shoal, the people had neither weapons nor experience for such a dubious chase, and presently—even with a certain relief, it may be—the boats turned shoreward.

And now to tell what is perhaps the most astonishing fact in this whole astonishing raid. We have not the slightest knowledge of the subsequent movements of the shoal, although the whole southwest coast was now alert for it. But it may, perhaps, be significant that a cachalot was stranded off Sark on June 3rd. Two weeks and three days after this Sidmouth affair, a living *Haploteuthis* came ashore on Calais sands. It was alive, because several witnesses saw its tentacles moving in a convulsive way. But it is probable that it was dying. A gentleman named Pouchet obtained a rifle and shot it.

That was the last appearance of a living *Haploteuthis*. No others were seen on the French coast. On the 15th of June a dead body, almost complete, was washed ashore near Torquay, and a few days later a boat from the Marine Biological station, engaged in dredging off Plymouth, picked up a rotting specimen, slashed deeply with a cutlass wound. How the former specimen had come by its death it is impossible to say. And on the last day of June, Mr. Egbert Caine, an artist, bathing near Newlyn, threw up his arms, shrieked, and was drawn under. A friend bathing with him made no attempt to save him, but swam at once for the shore. This is the last fact to tell of this extraordinary raid from the deeper sea. Whether it is really the last of these horrible creatures it is, as yet, premature to say. But it is believed, and certainly it is to be hoped, that they have returned now, and returned for good, to the sunless depths of the middle seas, out of which they have so strangely and so mysteriously arisen.

## Notes

Dating from the period between Wells's finest novels, *The Time Machine* (1895) and *The War of the Worlds* (1898), "The Sea Raiders" shares with those longer narratives one of science fiction's archetypal patterns: that of catastrophe threatening civilization. Although lacking the seeming inevitability of *The Time Machine*, it stands closer in mood to that novel because Wells once more drew upon the natural order for the seeds of a possible disaster. As with Bierce's "The Damned Thing," it appeals to the reader's sense of horror as much as to his sense of wonder, but Wells made an essential shift of emphasis. He names *Haploteuthis ferox* at once, gives it credibility by citing data that he has concerning previous, random appearances of the genus, and then concentrates his attention upon the effects, immediate and implied, of the species' predatory foray into the familiar waters of the English Channel. He establishes *Haploteuthis* as a threat even to man by introducing his protagonist as the "first human to survive" an encounter with the marauders. Yet while one may say that with Bierce the creature is all, with Wells it is but a means to an end—the statement of the same theme that pervades all his early fiction.

One other initial distinction must be made between the two authors. Whereas Bierce turned to literary sources to find his unique, invisible beast, Wells apparently found the starting point for his tale of an imaginary species of giant cephalopods in the popular magazines of the day. His inclusion of the anecdote involving the Prince of Monaco, as David Hughes and others have shown, drew upon the report of that incident published in *Nature* (January 1896). Since we know how avidly the reading public of the period, both in Britain and America, turned to magazines popularizing scientific materials, we can understand the advantage that Wells gained. He could assume the attention of his audience and, to some extent at least, its knowledgeableness. (Both the reportorial tone of his narrator and his invention of the Latin name of the species suggest that he knew the qualities of his audience.)

But *Haploteuthis* must not be so familiar as the household cat. Thus, it remains a species which "must to a large extent for ever remain unknown to us"; of whose habitat "we are still altogether ignorant"; and whose invasion of the Channel even the zoologists "are altogether at a loss" to explain, although "Hemsley"—only named and not identified—

advances the theory which the narrator prefers. Having invested himself with additional authority simply by making Hemsley seem a personal acquaintance, he turns from "inconclusive evidence" to the main episode of the narrative.

"The Sea Raiders" is deceptively simple in structure: a single afternoon's horror at Sidmouth, framed by a dispassionate account of the coming and going of the giant cephalopods. The key to Wells's artistry is the narrator. Only he can command all the information at hand; only he can establish an overview which does not limit the reader to the perception of a single participant. He demotes the characters (note how few lines of dialogue occur), but he does not lessen the dramatic immediacy of the central action. Indeed, he heightens it by being able to concentrate his focus upon what happened. For whether he is a journalist or a scientist, he is issuing the public statement regarding "the extraordinary affair at Sidmouth."

The handling of Mr. Fison is crucial. Because Wells permits the narrator to stand between him and the reader, the "retired tea dealer" becomes important not as an individual but as a character representing the values and attitudes of the British establishment. To accomplish this, Wells selects details which both call forth his reader's personal experience and typify that experience. By fixing on Sidmouth, he evokes one of the most famous English seaside resorts, one familiar to the majority of his readers. Staying at "a boardinghouse" and having "nothing better to do than amuse himself," Mr. Fison makes the "mysterious movement" the objective of his aimless (?), bored (?) afternoon walk, as would many others. He is middle-aged, relatively prosperous, and sedentary; on the ladder he must stop "at intervals of thirty feet or so to take breath." His self-assurance is measured by his stopping to remove his shoes and socks and rolling his trousers above his knees. (Wells flaws the passage, perhaps, by explicitly underlining that assurance; yet it may be acceptable as the reflection of the narrator, and it does point up the central theme.) Face to face with the unknown carnivores—"horried, of course, and intensely excited and indignant at such revolting creatures"—Mr. Fison calls out and shags a stone at them as he would at swine feeding in a barnyard. This is his world, and the encounter is but a diversion before teatime. His attitude is reinforced by that of his companions who return with him. "Their minds were set on adventure, and they expressed their disappointment freely" when they did not at once see the creatures. None is prepared for "a fight for life." And when the "evil dream" is over, the beauty and tranquility of the scene return, the empty boats being the only reminder. In this way does Wells transform the episode into a

symbolic action revealing at once the violence of a changeable nature and the complacency with which man views *his* immutable world. It is the awareness of this discrepancy, shared by the narrator and the reader—Mr. Fison is left “stumbling . . . aimless and helpless,” unable to comprehend the significance of the struggle—which holds the true horror of “The Sea Raiders.”

Jack Williamson has suggested that “the facts of biological evolution must have given Wells his modern sense of the meaning of change. . . . [He] knew that no species survives forever.” Time and again during the 1890s he returned to biology. Nor should one overlook the relationship of his demonic *Haploteuthis* and those hulking giants of legend who dragged the sailing ships of early mariners into the depths. As early as his article, “The Extinction of Man” (*Pall Mall Gazette*, 1894), through “The Sea Raiders” to *The War of the Worlds*, whenever Wells sought to evoke horror, the form of the giant octopus was not far from his imagination. Whether from conscious artistry or some nightmarish association, one cannot say. (But one sometimes does wonder whether or not his early visions drove him to his later, desperate utopianism.) Be that as it may, in “The Sea Raiders,” closing with its uncertain hope that *Haploteuthis* will not return, Wells fused together the familiar and the mythic to achieve a metaphorical statement of man’s frail place in the universe.

## THE RED ONE

Jack London

(1916)

There it was! The abrupt liberation of sound, as he timed it with his watch, Bassett likened to the trump of an archangel. Walls of cities, he meditated, might well fall down before so vast and compelling a summons. For the thousandth time vainly he tried to analyze the tone-quality of that enormous peal that dominated the land far into the strongholds of the surrounding tribes. The mountain gorge which was its source rang to the rising tide of it until it brimmed over and flooded earth and sky and air. With the wantonness of a sick man's fancy, he likened it to the mighty cry of some Titan of the Elder World vexed with misery or wrath. Higher and higher it arose, challenging and demanding in such profoundness of volume that it seemed intended for ears beyond the narrow confines of the solar system. There was in it, too, the clamor of protest in that there were no ears to hear and comprehend its utterance.

—Such the sick man's fancy. Still he strove to analyze the sound. Sonorous as thunder was it, mellow as a golden bell, thin and sweet as a thrummed taut cord of silver—no; it was none of these, nor a blend of these. There were no words nor semblances in his vocabulary and experience with which to describe the totality of that sound.

Time passed. Minutes merged into quarters of hours, and quarters of hours into half hours, and still the sound persisted, ever changing from its initial vocal impulse yet never receiving fresh impulse—fading, dimming, dying as enormously as it had sprung into being. It became a confusion of troubled mutterings

and babblings and colossal whisperings. Slowly it withdrew, sob by sob, into whatever great bosom had birthed it, until it whimpered deadly whispers of wrath and as equally seductive whispers of delight, striving still to be heard, to convey some cosmic secret, some understanding of infinite import and value. It dwindled to a ghost of sound that had lost its menace and promise, and became a thing that pulsed on in the sick man's consciousness for minutes after it had ceased. When he could hear it no longer, Bassett glanced at his watch. An hour had elapsed ere that archangel's trump had subsided into tonal nothingness.

Was this, then, *his* dark tower?—Bassett pondered, remembering his Browning and gazing at his skeletonlike and fever-wasted hands. And the fancy made him smile—of Childe Roland bearing a slughorn to his lips with an arm as feeble as his was. Was it months, or years, he asked himself, since he first heard that mysterious call on the beach at Ringmanu? To save himself he could not tell. The long sickness had been most long. In conscious count of time he knew of months, many of them; but he had no way of estimating the long intervals of delirium and stupor. And how fared Captain Bateman of the blackbirder *Nari*? he wondered; and had Captain Bateman's drunken mate died of delirium tremens yet?

From which vain speculations, Bassett turned idly to review all that had occurred since that day on the beach of Ringmanu when he first heard the sound and plunged into the jungle after it. Sagawa had protested. He could see him yet, his queer little monkeyish face eloquent with fear, his back burdened with specimen cases, in his hands Bassett's butterfly net and naturalist's shotgun, as he quavered in Beche de mer English: "Me fella too much fright along bush. Bad fella boy too much stop'm along bush."

Bassett smiled sadly at the recollection. The little New Hanover boy had been frightened, but had proved faithful, following him without hesitancy into the bush in the quest after the source of the wonderful sound. No fire-hollowed tree trunk, that, throbbing war through the jungle depths, had been Bassett's

conclusion. Erroneous had been his next conclusion, namely, that the source or cause could not be more distant than an hour's walk and that he would easily be back by midafternoon to be picked up by the *Nari's* whaleboat.

"That big fella noise no good, all the same devil-devil," Sagawa had adjudged. And Sagawa had been right. Had he not had his head hacked off within the day? Bassett shuddered. Without doubt Sagawa had been eaten as well by the bad fella boys too much that stopped along the bush. He could see him, as he had last seen him, stripped of the shotgun and all the naturalist's gear of his master, lying on the narrow trail where he had been decapitated barely the moment before. Yes, within a minute the thing had happened. Within a minute, looking back, Bassett had seen him trudging patiently along under his burdens. Then Bassett's own trouble had come upon him. He looked at the cruelly healed stumps of the first and second fingers of his left hand, then rubbed them softly into the indentation in the back of his skull. Quick as had been the flash of the long-handled tomahawk, he had been quick enough to duck away his head and partially to deflect the stroke with his upflung hand. Two fingers and a nasty scalp wound had been the price he paid for his life. With one barrel of his ten-gauge shotgun he had blown the life out of the bushman who had so nearly got him; with the other barrel he had peppered the bushmen bending over Sagawa, and had the pleasure of knowing that the major portion of the charge had gone into the one who leaped away with Sagawa's head. Everything had occurred in a flash. Only himself, the slain bushman, and what remained of Sagawa, were in the narrow, wild-pig run of a path. From the dark jungle on either side came no rustle of movement or sound of life. And he had suffered distinct and dreadful shock. For the first time in his life he had killed a human being, and he knew nausea as he contemplated the mess of his handiwork.

Then had begun the chase. He retreated up the pig-run before his hunters, who were between him and the beach. How many there were, he could not guess. There might have been one, or a

hundred, for aught he saw of them. That some of them took to the trees and traveled along through the jungle roof he was certain; but at the most he never glimpsed more than an occasional flitting of shadows. No bowstrings twanged that he could hear; but every little while, whence discharged he knew not, tiny arrows whispered past him or struck tree boles and fluttered to the ground beside him. They were bone-tipped and feather-shafted, and the feathers, torn from the breasts of hummingbirds, iridesced like jewels.

Once—and now, after the long lapse of time, he chuckled gleefully at the recollection—he had detected a shadow above him that came to instant rest as he turned his gaze upward. He could make out nothing, but, deciding to chance it, had fired at it a heavy charge of number-five shot. Squalling like an infuriated cat, the shadow crashed down through tree ferns and orchids and thudded upon the earth at his feet, and, still squalling its rage and pain, had sunk its human teeth into the ankle of his stout tramping boot. He, on the other hand, was not idle, and with his free foot had done what reduced the squalling to silence. So injured to savagery had Bassett since become, that he chuckled again with the glee of the recollection.

What a night had followed! Small wonder that he had accumulated such a virulence and variety of fevers, he thought, as he recalled that sleepless night of torment, when the throb of his wounds was as nothing compared with the myriad stings of the mosquitoes. There had been no escaping them, and he had not dared to light a fire. They had literally pumped his body full of poison, so that, with the coming of day, eyes swollen almost shut, he had stumbled blindly on, not caring much when his head should be hacked off and his carcass started on the way of Sagawa's to the cooking fire. Twenty-four hours had made a wreck of him—of mind as well as body. He had scarcely retained his wits at all, so maddened was he by the tremendous inoculation of poison he had received. Several times he fired his shotgun with effect into the shadows that dogged him. Stinging day insects and gnats added to his torment, while his bloody wounds attracted hosts



of loathsome flies that clung sluggishly to his flesh and had to be brushed off and crushed off.

Once, in that day, he heard again the wonderful sound, seemingly more distant, but rising imperiously above the nearer war drums in the bush. Right there was where he had made his mistake. Thinking that he had passed beyond it and that, therefore, it was between him and the beach of Ringmanu, he had worked back toward it when in reality he was penetrating deeper and deeper into the mysterious heart of the unexplored island. That night, crawling in among the twisted roots of a banyan tree, he had slept from exhaustion while the mosquitoes had had their will of him.

Followed days and nights that were vague as nightmares in his memory. One clear vision he remembered was of suddenly finding himself in the midst of a bush village and watching the old men and children fleeing into the jungle. All had fled but one. From close at hand and above him, a whimpering as of some animal in pain and terror had startled him. And looking up he had seen her—a girl, or young woman, rather, suspended by one arm in the cooking sun. Perhaps for days she had so hung. Her swollen, protruding tongue spoke as much. Still alive, she gazed at him with eyes of terror. Past help, he decided, as he noted the swellings of her legs which advertised that the joints had been crushed and the great bones broken. He resolved to shoot her, and there the vision terminated. He could not remember whether he had or not, any more than could he remember how he chanced to be in that village or how he succeeded in getting away from it.

Many pictures, unrelated, came and went in Bassett's mind as he reviewed that period of his terrible wanderings. He remembered invading another village of a dozen houses and driving all before him with his shotgun save for one old man, too feeble to flee, who spat at him and whined and snarled as he dug open a ground oven and from amid the hot stones dragged forth a roasted pig that steamed its essence deliciously through its green-leaf wrappings. It was at this place that a wantonness of savagery had seized upon him. Having feasted, ready to depart with a hind

quarter of the pig in his hand, he deliberately fired the grass thatch of a house with his burning glass.

But seared deepest of all in Bassett's brain, was the dank and noisome jungle. It actually stank with evil, and it was always twilight. Rarely did a shaft of sunlight penetrate its matted roof a hundred feet overhead. And beneath that roof was an aerial ooze of vegetation, a monstrous, parasitic dripping of decadent life-forms that rooted in death and lived on death. And through all this he drifted, ever pursued by the flitting shadows of the anthropophagi, themselves ghosts of evil that dared not face him in battle but that knew, soon or late, that they would feed on him. Bassett remembered that at the time, in lucid moments, he had likened himself to a wounded bull pursued by plains' coyotes too cowardly to battle with him for the meat of him, yet certain of the inevitable end of him when they would be full gorged. As the bull's horns and stamping hoofs kept off the coyotes, so his shotgun kept off these Solomon Islanders, these twilight shades of bushmen of the island of Guadalcanal.

Came the day of the grasslands. Abruptly, as if cloven by the sword of God in the hand of God, the jungle terminated. The edge of it, perpendicular and as black as the infamy of it, was a hundred feet up and down. And, beginning at the edge of it, grew the grass—sweet, soft, tender, pasture grass that would have delighted the eyes and beasts of any husbandman and that extended, on and on, for leagues and leagues of velvet verdure, to the backbone of the great island, the towering mountain range flung up by some ancient earth cataclysm, serrated and gullied but not yet erased by the erosive tropic rains. But the grass! He had crawled into it a dozen yards, buried his face in it, smelled it, and broken down in a fit of involuntary weeping.

And, while he wept, the wonderful sound had pealed forth—if by *peal*, he had often thought since, an adequate description could be given of the enunciation of so vast a sound so melting sweet. Sweet it was as no sound ever heard. Vast it was, of so mighty a resonance that it might have proceeded from some brazen-throated monster. And yet it called to him across that

leagues-wide savannah, and was like a benediction to his long-suffering, pain-wracked spirit.

He remembered how he lay there in the grass, wet-cheeked but no longer sobbing, listening to the sound and wondering that he had been able to hear it on the beach of Ringmanu. Some freak of air pressures and air currents, he reflected, had made it possible for the sound to carry so far. Such conditions might not happen again in a thousand days or ten thousand days; but the one day it had happened had been the day he landed from the *Nari* for several hours' collecting. Especially had he been in quest of the famed jungle butterfly, a foot across from wing tip to wing tip, as velvet-dusky of lack of color as was the gloom of the roof, of such lofty arboreal habits that it resorted only to the jungle roof and could be brought down only by a dose of shot. It was for this purpose that Sagawa had carried the twenty-gauge shotgun.

Two days and nights he had spent crawling across that belt of grassland. He had suffered much, but pursuit had ceased at the jungle edge. And he would have died of thirst had not a heavy thunderstorm revived him on the second day.

And then had come Balatta. In the first shade, where the savannah yielded to the dense mountain jungle, he had collapsed to die. At first she had squealed with delight at sight of his helplessness, and was for beating his brain out with a stout forest branch. Perhaps it was his very utter helplessness that had appealed to her, and perhaps it was her human curiosity that made her refrain. At any rate, she had refrained, for he opened his eyes again under the impending blow, and saw her studying him intently. What especially struck her about him were his blue eyes and white skin. Coolly she had squatted on her hams, spat on his arm, and with her fingertips scrubbed away the dirt of days and nights of muck and jungle that sullied the pristine whiteness of his skin.

And everything about her had struck him especially, although there was nothing conventional about her at all. He laughed weakly at the recollection, for she had been as innocent of garb as Eve before the fig-leaf adventure. Squat and lean at the same

time, asymmetrically limbed, string-muscled as if with lengths of cordage, dirt-caked from infancy save for casual showers, she was as unbeautiful a prototype of woman as he, with a scientist's eye, had ever gazed upon. Her breasts advertised at the one time her maturity and youth; and, if by nothing else, her sex was advertised by the one article of finery with which she was adorned, namely a pig's tail, thrust through a hole in her left earlobe. So lately had the tail been severed, that its raw end still oozed blood that dried upon her shoulder like so much candle droppings. And her face! A twisted and wizened complex of apish features, perforated by upturned, sky-open, Mongolian nostrils, by a mouth that sagged from a huge upper lip and faded precipitately into a retreating chin, and by peering querulous eyes that blinked as blink the eyes of denizens of monkey cages.

Not even the water she brought him in a forest leaf, and the ancient and half-putrid chunk of roast pig, could redeem in the slightest the grotesque hideousness of her. When he had eaten weakly for a space, he closed his eyes in order not to see her, although again and again she poked them open to peer at the blue of them. Then had come the sound. Nearer, much nearer, he knew it to be; and he knew equally well, despite the weary way he had come, that it was still many hours distant. The effect of it on her had been startling. She cringed under it, with averted face, moaning and chattering with fear. But after it had lived its full life of an hour, he closed his eyes and fell asleep with Balatta brushing the flies from him.

When he awoke it was night, and she was gone. But he was aware of renewed strength, and, by then too thoroughly inoculated by the mosquito poison to suffer further inflammation, he closed his eyes and slept an unbroken stretch till sunup. A little later Balatta had returned, bringing with her a half dozen women who, unbeautiful as they were, were patently not so unbeautiful as she. She evidenced by her conduct that she considered him her find, her property, and the pride she took in showing him off would have been ludicrous had his situation not been so desperate.

Later, after what had been to him a terrible journey of miles, when he collapsed in front of the devil-devil house in the shadow of the breadfruit tree, she had shown very lively ideas on the matter of retaining possession of him. Ngurn, whom Bassett was to know afterward as the devil-devil doctor, priest, or medicine man of the village, had wanted his head. Others of the grinning and chattering monkey men, all as stark of clothes and bestial of appearance as Balatta, had wanted his body for the roasting oven. At that time he had not understood their language, if by *language* might be dignified the uncouth sounds they made to represent ideas. But Bassett had thoroughly understood the matter of debate, especially when the men pressed and prodded and felt of the flesh of him as if he were so much commodity in a butcher's stall.

Balatta had been losing the debate rapidly, when the accident happened. One of the men, curiously examining Bassett's shotgun, managed to cock and pull a trigger. The recoil of the butt into the pit of the man's stomach had not been the most sanguinary result, for the charge of shot, at a distance of a yard, had blown the head of one of the debaters into nothingness.

Even Balatta joined the others in flight, and, ere they returned, his senses already reeling from the oncoming fever attack, Bassett had regained possession of the gun. Whereupon, although his teeth chattered with the ague and his swimming eyes could scarcely see, he held onto his fading consciousness until he could intimidate the bushmen with the simple magics of compass, watch, burning glass, and matches. At the last, with due emphasis of solemnity and awfulness, he had killed a young pig with his shotgun and promptly fainted.

Bassett flexed his arm muscles in quest of what possible strength might reside in such weakness, and dragged himself slowly and tottering to his feet. He was shockingly emaciated; yet, during the various convalescences of the many months of his long sickness, he had never regained quite the same degree of strength as this time. What he feared was another relapse such as he had already frequently experienced. Without drugs, without

even quinine, he had managed so far to live through a combination of the most pernicious and most malignant of malarial and blackwater fevers. But could he continue to endure? Such was his everlasting query. For, like the genuine scientist he was, he would not be content to die until he had solved the secret of the sound.

Supported by a staff, he staggered the few steps to the devil-devil house where death and Ngurn reigned in gloom. Almost as infamously dark and evil-stinking as the jungle was the devil-devil house—in Bassett's opinion. Yet therein was usually to be found his favorite crony and gossip, Ngurn, always willing for a yarn or a discussion, the while he sat in the ashes of death and in a slow smoke shrewdly revolved curing human heads suspended from the rafters. For, through the months' interval of consciousness of his long sickness, Bassett had mastered the psychological simplicities and lingual difficulties of the language of the tribe of Ngurn and Balatta, and Gngngn—the latter the addleheaded young chief who was ruled by Ngurn, and who, whispered intrigue had it, was the son of Ngurn.

"Will the Red One speak to-day?" Bassett asked, by this time so accustomed to the old man's gruesome occupation as to take even an interest in the progress of the smoke-curing.

With the eye of an expert Ngurn examined the particular head he was at work upon.

"It will be ten days before I can say 'finish,'" he said. "Never has any man fixed heads like these."

Bassett smiled inwardly at the old fellow's reluctance to talk with him of the Red One. It had always been so. Never, by any chance, had Ngurn or any other member of the weird tribe divulged the slightest hint of any physical characteristic of the Red One. Physical the Red One must be, to emit the wonderful sound, and though it was called the Red One, Bassett could not be sure that red represented the color of it. Red enough were the deeds and powers of it, from what abstract clews he had gleaned. Not alone, had Ngurn informed him, was the Red One more bestial powerful than the neighbor tribal gods, ever athirst for the red

blood of living human sacrifices, but the neighbor gods themselves were sacrificed and tormented before him. He was the god of a dozen allied villages similar to this one, which was the central and commanding village of the federation. By virtue of the Red One many alien villages had been devastated and even wiped out, the prisoners sacrificed to the Red One. This was true today, and it extended back into old history carried down by word of mouth through the generations. When he, Ngurn, had been a young man, the tribes beyond the grasslands had made a war raid. In the counterraid, Ngurn and his fighting folk had made many prisoners. Of children alone over five score living had been bled white before the Red One, and many, many more men and women.

The Thunderer, was another of Ngurn's names for the mysterious deity. Also at times was he called The Loud Shouter, The God-Voiced, The Bird-Throated, The One with the Throat Sweet as the Throat of the Honey-Bird, The Sun Singer, and The Star-Born.

Why The Star-Born? In vain Bassett interrogated Ngurn. According to that old devil-devil doctor, the Red One had always been, just where he was at present, forever singing and thundering his will over men. But Ngurn's father, wrapped in decaying grass matting and hanging even then over their heads among the smoky rafters of the devil-devil house, had held otherwise. That departed wise one had believed that the Red One came from out of the starry night, else why—so his argument had run—had the old and forgotten ones passed his name down as the Star-Born? Bassett could not but recognize something cogent in such argument. But Ngurn affirmed the long years of his long life, wherein he had gazed upon many starry nights, yet never had he found a star on grassland or in jungle depth—and he had looked for them. True, he had beheld shooting stars (this in reply to Bassett's contention); but likewise had he beheld the phosphorescence of fungoid growths and rotten meat and fireflies on dark nights, and the flames of wood fires and of blazing candlenuts; yet what were flame and blaze and glow when they had flamed,

and blazed and glowed? Answer: memories, memories only, of things which had ceased to be, like memories of matings accomplished, of feasts forgotten, of desires that were the ghosts of desires, flaring, flaming, burning, yet unrealized in achievement of easement and satisfaction. Where was the appetite of yesterday? the roasted flesh of the wild pig the hunter's arrow failed to slay? the maid, unwed and dead, ere the young man knew her?

A memory was not a star, was Ngurn's contention. How could a memory be a star? Further, after all his long life he still observed the starry night sky unaltered. Never had he noted the absence of a single star from its accustomed place. Besides, stars were fire, and the Red One was not fire—which last involuntary betrayal told Bassett nothing.

"Will the Red One speak tomorrow?" he queried.

Ngurn shrugged his shoulders as who should say.

"And the day after?—and the day after that?" Bassett persisted.

"I would like to have the curing of your head," Ngurn changed the subject. "It is different from any other head. No devil-devil has a head like it. Besides, I would cure it well. I would take months and months. The moons would come and the moons would go, and the smoke would be very slow, and I should myself gather the materials for the curing smoke. The skin would not wrinkle. It would be as smooth as your skin now."

He stood up, and from the dim rafters grimed with the smoking of countless heads, where day was no more than a gloom, took down a matting-wrapped parcel and began to open it.

"It is a head like yours," he said, "but it is poorly cured."

Bassett had pricked up his ears at the suggestion that it was a white man's head; for he had long since come to accept that these jungle dwellers, in the midmost center of the great island, had never had intercourse with white men. Certainly he had found them without the almost universal *Beche de mer* English of the west South Pacific. Nor had they knowledge of tobacco, nor of gunpowder. Their few precious knives, made from lengths of hoop iron, and their few and more precious tomahawks, made from cheap trade hatchets, he had surmised they



had captured in war from the bushmen of the jungle beyond the grasslands, and that they, in turn, had similarly gained them from the saltwater men who fringed the coral beaches of the shore and had contact with the occasional white men.

"The folk in the out beyond do not know how to cure heads," old Ngurn explained, as he drew forth from the filthy matting and placed in Bassett's hands an indubitable white man's head.

Ancient it was beyond question; white it was as the blond hair attested. He could have sworn it once belonged to an Englishman, and to an Englishman of long before by token of the heavy gold circlets still threaded in the withered earlobes.

"Now your head . . ." the devil-devil doctor began on his favorite topic.

"I'll tell you what," Bassett interrupted, struck by a new idea. "When I die I'll let you have my head to cure, if, first, you take me to look upon the Red One."

"I will have your head anyway when you are dead," Ngurn rejected the proposition. He added, with the brutal frankness of the savage: "Besides, you have not long to live. You are almost a dead man now. You will grow less strong. In not many months I shall have you here turning and turning in the smoke. It is pleasant, through the long afternoons, to turn the head of one you have known as well as I know you. And I shall talk to you and tell you the many secrets you want to know. Which will not matter, for you will be dead."

"Ngurn," Bassett threatened in sudden anger. "You know the Baby Thunder in the Iron that is mine." (This was in reference to his all-potent and all-awful shotgun.) "I can kill you any time, and then you will not get my head."

"Just the same, will Gngngn, or some one else of my folk get it," Ngurn complacently assured him. "And just the same will it turn and turn here in the devil-devil house in the smoke. The quicker you slay me with your Baby Thunder, the quicker will your head turn in the smoke."

And Bassett knew he was beaten in the discussion.

What was the Red One?—Bassett asked himself a thousand

times in the succeeding week, while he seemed to grow stronger. What was the source of the wonderful sound? What was this Sun Singer, this Star-Born One, this mysterious deity, as bestial-conducted as the black and kinky-headed and monkeylike human beasts who worshiped it, and whose silver-sweet, bull-mouthed singing and commanding he had heard at the taboo distance for so long?

Ngurn had he failed to bribe with the inevitable curing of his head when he was dead. Gngngn, imbecile and chief that he was, was too imbecilic, too much under the sway of Ngurn, to be considered. Remained Balatta, who, from the time she found him and poked his blue eyes open to recrudescence of her grotesque, female hideousness, had continued his adorer. Woman she was, and he had long known that the only way to win from her treason to her tribe was through the woman's heart of her.

Bassett was a fastidious man. He had never recovered from the initial horror caused by Balatta's female awfulness. Back in England, even at best, the charm of woman, to him, had never been robust. Yet now, resolutely, as only a man can do who is capable of martyring himself for the cause of science, he proceeded to violate all the fineness and delicacy of his nature by making love to the unthinkable disgusting bushwoman.

He shuddered, but with averted face hid his grimaces and swallowed his gorge as he put his arm around her dirt-crust-ed shoulders and felt the contact of her rancid-oily and kinky hair with his neck and chin. But he nearly screamed when she succumbed to that caress so at the very first of the courtship and mowed and gibbered and squealed little, queer, piglike gurgly noises of delight. It was too much. And the next he did in the singular courtship was to take her down to the stream and give her a vigorous scrubbing.

From then on he devoted himself to her like a true swain as frequently and for as long at a time as his will could override his repugnance. But marriage, which she ardently suggested, with due observance of tribal custom, he balked at. Fortunately, taboo rule was strong in the tribe. Thus, Ngurn could never touch bone,

or flesh, or hide of crocodile. This had been ordained at his birth. Gngngn was denied ever the touch of woman. Such pollution, did it chance to occur, could be purged only by the death of the offending female. It had happened once, since Bassett's arrival, when a girl of nine, running in play, stumbled and fell against the sacred chief. And the girl-child was seen no more. In whispers, Balatta told Bassett that she had been three days and nights in dying before the Red One. As for Balatta, the breadfruit was taboo to her. For which Bassett was thankful. The taboo might have been water.

For himself, he fabricated a special taboo. Only could he marry, he explained, when the Southern Cross rode highest in the sky. Knowing his astronomy, he thus gained a reprieve of nearly nine months; and he was confident that within that time he would either be dead or escaped to the coast with full knowledge of the Red One and of the source of the Red One's wonderful voice. At first he had fancied the Red One to be some colossal statue, like Memnon, rendered vocal under certain temperature conditions of sunlight. But when, after a war raid, a batch of prisoners was brought in and the sacrifice made at night, in the midst of rain, when the sun could play no part, the Red One had been more vocal than usual, Bassett discarded that hypothesis.

In company with Balatta, sometimes with men and parties of women, the freedom of the jungle was his for three quadrants of the compass. But the fourth quadrant, which contained the Red One's abiding place, was taboo. He made more thorough love to Balatta—also saw to it that she scrubbed herself more frequently. Eternal female she was, capable of any treason for the sake of love. And, though the sight of her was provocative of nausea and the contact of her provocative of despair, although he could not escape her awfulness in his dream-haunted nightmares of her, he nevertheless was aware of the cosmic verity of sex that animated her and that made her own life of less value than the happiness of her lover with whom she hoped to mate. Juliet or Balatta? Where was the intrinsic difference? The soft and ten-

der product of ultracivilization, or her bestial prototype of a hundred thousand years before her?—there was no difference.

Bassett was a scientist first, a humanist afterward. In the jungle heart of Guadalcanal he put the affair to the test, as in the laboratory he would have put to the test any chemical reaction. He increased his feigned ardor for the bushwoman, at the same time increasing the imperiousness of his will of desire over her to be led to look upon the Red One face to face. It was the old story, he recognized, that the woman must pay, and it occurred when the two of them, one day, were catching the unclassified and unnamed little black fish, an inch long, half-eel and half-scaled, rotund with salmon-golden roe, that frequented the fresh water and that were esteemed, raw and whole, fresh or putrid, a perfect delicacy. Prone in the muck of the decaying jungle floor, Balatta threw herself, clutching his ankles with her hands, kissing his feet and making slubbery noises that chilled his backbone up and down again. She begged him to kill her rather than exact this ultimate love payment. She told him of the penalty of breaking the taboo of the Red One—a week of torture, living, the details of which she yammered out from her face in the mire until he realized that he was yet a tyro in knowledge of the frightfulness the human was capable of wreaking on the human.

Yet did Bassett insist on having his man's will satisfied, at the woman's risk, that he might solve the mystery of the Red One's singing, though she should die long and horribly and screaming. And Balatta, being mere woman, yielded. She led him into the forbidden quadrant. An abrupt mountain, shouldering in from the north to meet a similar intrusion from the south, tormented the stream in which they had fished into a deep and gloomy gorge. After a mile along the gorge, the way plunged sharply upward until they crossed a saddle of raw limestone which attracted his geologist's eye. Still climbing, although he paused often from sheer physical weakness, they scaled forest-clad heights until they emerged on a naked mesa or tableland. Bassett recognized the stuff of its composition as black volcanic sand, and knew that a

pocket magnet could have captured a full load of the sharply angular grains he trod upon.

And then, holding Balatta by the hand and leading her onward, he came to it—a tremendous pit, obviously artificial, in the heart of the plateau. Old history, the South Seas Sailing Directions, scores of remembered data and connotations swift and furious, surged through his brain. It was Mendana who had discovered the islands and named them Solomon's, believing that he had found that monarch's fabled mines. They had laughed at the old navigator's childlike credulity; and yet here stood himself, Bassett, on the rim of an excavation for all the world like the diamond pits of South Africa.

But no diamond this that he gazed down upon. Rather was it a pearl, with the depth of iridescence of a pearl; but of a size all pearls of earth and time welded into one, could not have totaled; and of a color undreamed of any pearl, or of anything else, for that matter, for it was the color of the Red One. And the Red One himself Bassett knew it to be on the instant. A perfect sphere, fully two hundred feet in diameter, the top of it was a hundred feet below the level of the rim. He likened the color quality of it to lacquer. Indeed, he took it to be some sort of lacquer, applied by man, but a lacquer too marvelously clever to have been manufactured by the bush folk. Brighter than bright cherry-red, its richness of color was as if it were red builded upon red. It glowed and iridescend in the sunlight as if gleaming up from underlay under underlay of red.

In vain Balatta strove to dissuade him from descending. She threw herself in the dirt; but, when he continued down the trail that spiraled the pit wall, she followed, cringing and whimpering her terror. That the red sphere had been dug out as a precious thing, was patent. Considering the paucity of members of the federated twelve villages and their primitive tools and methods, Bassett knew that the toil of a myriad generations could scarcely have made that enormous excavation.

He found the pit bottom carpeted with human bones, among which, battered and defaced, lay village gods of wood and stone.

Some, covered with obscene totemic figures and designs, were carved from solid tree trunks forty or fifty feet in length. He noted the absence of the shark and turtle gods, so common among the shore villages, and was amazed at the constant recurrence of the helmet motive. What did these jungle savages of the dark heart of Guadalcanal know of helmets? Had Mendana's men-at-arms worn helmets and penetrated here centuries before? And if not, then whence had the bush folk caught the motive?

Advancing over the litter of gods and bones, Balatta whimpering at his heels, Bassett entered the shadow of the Red One and passed on under its gigantic overhang until he touched it with his fingertips. No lacquer that. Nor was the surface smooth as it should have been in the case of lacquer. On the contrary, it was corrugated and pitted, with here and there patches that showed signs of heat and fusing. Also, the substance of it was metal, though unlike any metal or combination of metals he had ever known. As for the color itself, he decided it to be no application. It was the intrinsic color of the metal itself.

He moved his fingertips, which up to that had merely rested, along the surface, and felt the whole gigantic sphere quicken and live and respond. It was incredible! So light a touch on so vast a mass! Yet did it quiver under the fingertip caress in rhythmic vibrations that became whisperings and rustlings and mutterings of sound—but of sound so different; so elusive thin that it was shimmeringly sibilant; so mellow that it was maddening sweet, piping like an elfin horn, which last was just what Bassett decided would be like a peal from some bell of the gods reaching earthward from across space.

He looked to Balatta with swift questioning; but the voice of the Red One he had evoked had flung her face-downward and moaning among the bones. He returned to contemplation of the prodigy. Hollow it was, and of no metal known on earth, was his conclusion. It was right-named by the ones of old time as the Star-Born. Only from the stars could it have come, and no thing of chance was it. It was a creation of artifice and mind. Such perfection of form, such hollowness that it certainly possessed, could

not be the result of mere fortuitousness. A child of intelligences, remote and unguessable, working corporally in metals, it indubitably was. He stared at it in amaze, his brain a racing wild fire of hypotheses to account for this far-journeyer who had adventured the night of space, threaded the stars, and now rose before him and above him, exhumed by patient anthropophagi, pitted and lacquered by its fiery bath in two atmospheres.

But was the color a lacquer of heat upon some familiar metal? Or was it an intrinsic quality of the metal itself? He thrust in the blade point of his pocketknife to test the constitution of the stuff. Instantly the entire sphere burst into a mighty whispering, sharp with protest, almost twanging goldenly if a whisper could possibly be considered to twang, rising higher, sinking deeper, the two extremes of the registry of sound threatening to complete the circle and coalesce into the bull-mouthed thundering he had so often heard beyond the taboo distance.

Forgetful of safety, of his own life itself, entranced by the wonder of the unthinkable and unguessable thing, he raised his knife to strike heavily from a long stroke, but was prevented by Balatta. She upreared on her own knees in an agony of terror, clasping his knees and supplicating him to desist. In the intensity of her desire to impress him, she put her forearm between her teeth and sank them to the bone.

He scarcely observed her act, although he yielded automatically to his gentler instincts and withheld the knife hack. To him, human life had dwarfed to microscopic proportions before this colossal portent of higher life from within the distances of the sidereal universe. As had she been a dog, he kicked the ugly little bushwoman to her feet and compelled her to start with him on an encirclement of the base. Part way around, he encountered horrors. Even, among the others, did he recognize the sun-shriveled remnant of the nine-years girl who had accidentally broken Chief Gngngn's personality taboo. And, among what was left of these that had passed, he encountered what was left of one who had not yet passed. Truly had the bush folk named themselves into the name of the Red One, seeing in him

their own image which they strove to placate and please with such red offerings.

Farther around, always treading the bones and images of humans and gods that constituted the floor of this ancient charnel house of sacrifice, he came upon the device by which the Red One was made to send his call singing thunderingly across the jungle belts and grasslands to the far beach of Ringmanu. Simple and primitive was it as was the Red One's consummate artifice. A great king post, half a hundred feet in length, seasoned by centuries of superstitious care, carved into dynasties of gods, each superimposed, each helmeted, each seated in the open mouth of a crocodile, was slung by ropes, twisted of climbing vegetable parasites, from the apex of a tripod of three great forest trunks, themselves carved into grinning and grotesque adumbrations of man's modern concepts of art and god. From the striker king post, were suspended ropes of climbers to which men could apply their strength and direction. Like a battering ram, this king post could be driven end-onward against the mighty, red-iridescent sphere.

Here was where Ngurn officiated and functioned religiously for himself and the twelve tribes under him. Bassett laughed aloud, almost with madness, at the thought of this wonderful messenger, winged with intelligence across space, to fall into a bushman stronghold and be worshiped by apelike, man-eating and headhunting savages. It was as if God's Word had fallen into the muck mire of the abyss underlying the bottom of hell; as if Jehovah's Commandments had been presented on carved stone to the monkeys of the monkey cage at the Zoo; as if the Sermon on the Mount had been preached in a roaring bedlam of lunatics.

The slow weeks passed. The nights, by election, Bassett spent on the ashen floor of the devil-devil house, beneath the ever-swinging, slow-curing heads. His reason for this was that it was taboo to the lesser sex of woman, and, therefore, a refuge for him from Balatta, who grew more persecutingly and perilously lovely



as the Southern Cross rode higher in the sky and marked the imminence of her nuptials. His days Bassett spent in a hammock swung under the shade of the great breadfruit tree before the devil-devil house. There were breaks in this program, when, in the comas of his devastating fever attacks, he lay for days and nights in the house of heads. Ever he struggled to combat the fever, to live, to continue to live, to grow strong and stronger against the day when he would be strong enough to dare the grasslands and the belted jungle beyond, and win to the beach, and to some labor-recruiting, blackbirding ketch or schooner, and on to civilization and the men of civilization, to whom he could give news of the message from other worlds that lay, darkly worshiped by beastmen, in the black heart of Guadalcanal's mid-most center.

On other nights, lying late under the breadfruit tree, Bassett spent long hours watching the slow setting of the western stars beyond the black wall of jungle where it had been thrust back by the clearing for the village. Possessed of more than a cursory knowledge of astronomy, he took a sick man's pleasure in speculating as to the dwellers on the unseen worlds of those incredibly remote suns, to haunt whose houses of light, life came forth, a shy visitant, from the rayless crypts of matter. He could no more apprehend limits to time than bounds to space. No subversive radium speculations had shaken his steady scientific faith in the conservation of energy and the indestructibility of matter. Always and forever must there have been stars. And surely, in that cosmic ferment, all must be comparatively alike, comparatively of the same substance, or substances, save for the freaks of the ferment. All must obey, or compose, the same laws that ran without infraction through the entire experience of man. Therefore, he argued and agreed, must worlds and life be appanages to all the suns as they were appanages to the particular sun of his own solar system.

Even as he lay here, under the breadfruit tree, an intelligence that stared across the starry gulfs, so must all the universe be exposed to the ceaseless scrutiny of innumerable eyes, like his,

though grantedly different, with behind them, by the same token, intelligences that questioned and sought the meaning and the construction of the whole. So reasoning, he felt his soul go forth in kinship with that august company, that multitude whose gaze was forever upon the arras of infinity.

Who were they, what were they, those far distant and superior ones who had bridged the sky with their gigantic, red-iridescent, heaven-singing message? Surely, and long since, had they, too, trod the path on which man had so recently, by the calendar of the cosmos, set his feet. And to be able to send such a message across the pit of space, surely they had reached those heights to which man, in tears and travail and bloody sweat, in darkness and confusion of many counsels, was so slowly struggling. And what were they on their heights? Had they won Brotherhood? Or had they learned that the law of love imposed the penalty of weakness and decay? Was strife, life? Was the rule of all the universe the pitiless rule of natural selection? And, and most immediately and poignantly, were their far conclusions, their long-won wisdoms, shut even then in the huge, metallic heart of the Red One, waiting for the first earth-man to read? Of one thing he was certain: No drop of red dew shaken from the lion mane of some sun in torment, was the sounding sphere. It was of design, not chance, and it contained the speech and wisdom of the stars.

What engines and elements and mastered forces, what lore and mysteries and destiny controls, might be there! Undoubtedly, since so much could be inclosed in so little a thing as the foundation stone of public building, this enormous sphere should contain vast histories, profounds of research achieved beyond man's wildest guesses, laws and formulæ that, easily mastered, would make man's life on earth, individual and collective, spring up from its present mire to inconceivable heights of purity and power. It was Time's greatest gift to blindfold, insatiable, and sky-aspiring man. And to him, Bassett, had been vouchsafed the lordly fortune to be the first to receive this message from man's interstellar kin!

No white man, much less no outland man of the other bush tribes, had gazed upon the Red One and lived. Such the law expounded by Ngurn to Bassett. There was such a thing as blood brotherhood, Bassett, in return, had often argued in the past. But Ngurn had stated solemnly no. Even the blood brotherhood was outside the favor of the Red One. Only a man born within the tribe could look upon the Red One and live. But now, his guilty secret known only to Balatta, whose fear of immolation before the Red One fast-sealed her lips, the situation was different. What he had to do was to recover from the abominable fevers that weakened him and gain to civilization. Then would he lead an expedition back, and, although the entire population of Guadalcanal be destroyed, extract from the heart of the Red One the message of the world from other worlds.

But Bassett's relapses grew more frequent, his brief convalescences less and less vigorous, his periods of coma longer, until he came to know, beyond the last promptings of the optimism inherent in so tremendous a constitution as his own, that he would never live to cross the grasslands, perforate the perilous coast jungle, and reach the sea. He faded as the Southern Cross rose higher in the sky, till even Balatta knew that he would be dead ere the nuptial date determined by his taboo. Ngurn made pilgrimage personally and gathered the smoke materials for the curing of Bassett's head, and to him made proud announcement and exhibition of the artistic perfectness of his intention when Bassett should be dead. As for himself, Bassett was not shocked. Too long and too deeply had life ebbed down in him to bite him with fear of its impending extinction. He continued to persist, alternating periods of unconsciousness with periods of semi-consciousness, dreamy and unreal, in which he idly wondered whether he had ever truly beheld the Red One or whether it was a nightmare fancy of delirium.

Came the day when all mists and cobwebs dissolved, when he found his brain clear as a bell, and took just appraisal of his body's weakness. Neither hand nor foot could he lift. So little control of his body did he have, that he was scarcely aware

of possessing one. Lightly indeed his flesh sat upon his soul, and his soul, in its briefness of clarity, knew by its very clarity, that the black of cessation was near. He knew the end was close; knew that in all truth he had with his eyes beheld the Red One, the messenger between the worlds; knew that he would never live to carry that message to the world—that message, for aught to the contrary, which might already have waited man's hearing in the heart of Guadalcanal for ten thousand years. And Bassett stirred with resolve, calling Ngurn to him, out under the shade of the breadfruit tree, and with the old devil-devil doctor discussing the terms and arrangements of his last life effort, his final adventure in the quick of the flesh.

"I know the law, O Ngurn," he concluded the matter. "Whoso is not of the folk may not look upon the Red One and live. I shall not live anyway. Your young men shall carry me before the face of the Red One, and I shall look upon him, and hear his voice, and thereupon die, under your hand, O Ngurn. Thus will the three things be satisfied: the law, my desire, and your quicker possession of my head for which all your preparations wait."

To which Ngurn consented, adding:

"It is better so. A sick man who cannot get well is foolish to live on for so little a while. Also, is it better for the living that he should go. You have been much in the way of late. Not but what it was good for me to talk to such a wise one. But for moons of days we have held little talk. Instead, you have taken up room in the house of heads, making noises like a dying pig, or talking much and loudly in your own language which I do not understand. This has been a confusion to me, for I like to think on the great things of the light and dark as I turn the heads in the smoke. Your much noise has thus been a disturbance to the long learning and hatching of the final wisdom that will be mine before I die. As for you, upon whom the dark has already brooded, it is well that you die now. And I promise you, in the long days to come when I turn your head in the smoke, no man of the tribe shall come in to disturb us. And I will tell you many secrets, for I am

an old man and very wise, and I shall be adding wisdom to wisdom as I turn your head in the smoke."

So a litter was made, and, borne on the shoulders of half a dozen of the men, Bassett departed on the last little adventure that was to cap the total adventure, for him, of living. With a body of which he was scarcely aware, for even the pain had been exhausted out of it, and with a bright clear brain that accommodated him to a quiet ecstasy of sheer lucidness of thought, he lay back on the lurching litter and watched the fading of the passing world, beholding for the last time the breadfruit tree before the devil-devil house, the dim day beneath the matted jungle roof, the gloomy gorge between the shouldering mountains, the saddle of raw limestone, and the mesa of black, volcanic sand.

Down the spiral path of the pit they bore him, encircling the sheening, glowing Red One that seemed ever imminent to iridesce from color and light into sweet singing and thunder. And over bones and logs of immolated men and gods they bore him, past the horrors of other immolated ones that yet lived, to the three-king-post tripod and the huge king-post striker.

Here Bassett, helped by Ngurn and Balatta, weakly sat up, swaying weakly from the hips, and with clear, unfaltering, all-seeing eyes gazed upon the Red One.

"Once, O Ngurn," he said, not taking his eyes from the sheening, vibrating surface whereon and wherein all the shades of cherry-red played unceasingly, ever aquiver to change into sound, to become silken rustlings, silvery whisperings, golden thrummings of cords, velvet pipings of elfland, mellow distances of thunderings.

"I wait," Ngurn prompted after a long pause, the long-handled tomahawk unassumingly ready in his hand.

"Once, O Ngurn," Bassett repeated, "let the Red One speak so that I may see it speak as well as hear it. Then strike, thus, when I raise my hand; for, when I raise my hand, I shall drop my head forward and make place for the stroke at the base of my neck. But, O Ngurn, I, who am about to pass out of the light of day

forever, would like to pass with the wonder voice of the Red One singing greatly in my ears."

"And I promise you that never will a head be so well cured as yours," Ngurn assured him, at the same time signaling the tribesmen to man the propelling ropes suspended from the king-post striker. "Your head shall be my greatest piece of work in the curing of heads."

Bassett smiled quietly to the old one's conceit, as the great carved log, drawn back through two-score feet of space, was released. The next moment he was lost in ecstasy at the abrupt and thunderous liberation of sound. But such thunder! Mellow it was with preciousness of all sounding metals. Archangels spoke in it; it was magnificently beautiful before all other sounds; it was invested with the intelligence of supermen of planets of other suns; it was the voice of God, seducing and commanding to be heard. And—the everlasting miracle of that interstellar metall Bassett, with his own eyes, saw color and colors transform into sound till the whole visible surface of the vast sphere was acrawl and titillant and vaporous with what he could not tell was color or was sound. In that moment the interstices of matter were his, and the interfusings and intermating transfusings of matter and force.

Time passed. At the last Bassett was brought back from his ecstasy by an impatient movement of Ngurn. He had quite forgotten the old devil-devil one. A quick flash of fancy brought a husky chuckle into Bassett's throat. His shotgun lay beside him in the litter. All he had to do, muzzle to head, was press the trigger and blow his head into nothingness.

But why cheat him? was Bassett's next thought. Headhunting, cannibal beast of a human that was as much ape as human, nevertheless Old Ngurn had, according to his lights, played squarer than square. Ngurn was in himself a forerunner of ethics and contract, of consideration, and gentleness in man. No, Bassett decided; it would be a ghastly pity and an act of dishonor to cheat the old fellow at the last. His head was Ngurn's, and Ngurn's head to cure it would be.

And Bassett, raising his hand in signal, bending forward his head as agreed so as to expose cleanly the articulation to his taut spinal cord, forgot Balatta, who was merely a woman, a woman merely and only and undesired. He knew, without seeing, when the razor-edged hatchet rose in the air behind him. And for that instant, ere the end, there fell upon Bassett the shadow of the Unknown, a sense of impending marvel of the rending of walls before the imaginable. Almost, when he knew the blow had started and just ere the edge of steel bit the flesh and nerves, it seemed that he gazed upon the serene face of the Medusa, Truth—And, simultaneous with the bite of the steel on the onrush of the dark, in a flashing instant of fancy, he saw the vision of his head turning slowly, always turning, in the devil-devil house beside the breadfruit tree.

## Notes

Of Jack London's forty-nine books, in addition to occasional short stories, four novels must be judged as science fiction: *Before Adam* (1906), *The Iron Heel* (1907), *The Star Rover* (1915), and *The Scarlet Plague* (1915). Robert E. Spiller's *Literary History of the United States* mentions only *The Iron Heel*, a dystopian attack upon industrial monopolies, although it says of London himself: "Primarily a skillful teller of tales, he achieved originality and significance by enthusiastic acceptance of the new doctrines of society and science that made a ferment of the popular mind." While each of the novels has a lasting importance within the genre, the story "The Red One" is his most original in concept and perhaps best exemplifies the skill with which he blended literary naturalism and fantasy.

His treatment of his theme anticipates the science fiction of mid-century, but the entire fabric of the story is naturalistic. London employs one of its basic motifs: he follows Bassett's degeneration from the effects of malaria from the early stages of the disease (the accumulation of fevers) until, realizing that he is near death, Bassett deliberately chooses to see "the messenger between the worlds" a second time and die at the hand of Ngurn. As far as motivation is concerned, the instincts of survival and sexuality move much of the action, as naturalism

preferred, but at this point London makes a major innovation. Instead of an animal-level of curiosity, he adds a purely intellectual drive, obsessive in Bassett (one may say that it is all that keeps him alive), but also present in the witch doctor. This explains in part why he allows Bassett to live as an invalid when a single blow given him during his delirium would permit Ngurn to begin his much-anticipated head-shrinking far sooner. One should not forget that Bassett has described Ngurn as "his favorite crony and gossip . . . always willing for a yarn or a discussion." They are tied to one another not only by their immediate desires but also by an intellectual rapport. London emphasizes this when Bassett decides not to cheat "the old fellow at the last" because he is a "forerunner of ethics and contract, of consideration, and gentleness in man." The witch doctor acknowledges that even after Bassett's death, "I shall be adding wisdom to wisdom as I turn your head in the fire." They are intellectuals from disparate cultures thrown together by circumstance; indeed, each in his own way may be called "a scientist first, a humanist afterward."

That Bassett awaits his death amid headhunters in the uncharted interior of Guadalcanal adds appropriately to the mood, but it does more. As many of his contemporaries—Conrad, Stevenson, a host of "lost race" novelists—and he himself had done, London again chooses the South Seas for his setting and returns his modern man to a primitive setting, as both naturalism and romanticism urged. Only the "pig gun" remains of Bassett's civilized veneer; only that and his scientifically trained mind. In the "lost race" fantasies of the period, the protagonists had often been stripped even of their weapons before being turned loose among noble savages in idyllic lands. In "The Red One" London will have none of this. From the beheading of Sagawa and the pursuit of Bassett through the "dank and noisome jungle," he divorces the island and its "bushmen" from any idealizing primitivism. The separation shows itself from the first in the images that Bassett recalls from his nightmare flight through the jungle—the tormenting mosquitoes, the burning hut, the hanging girl—but the break with convention becomes most distinct in his sketch of the "wizened," apelike Balatta, so unlike the legion of exotic pagans descended from H. Rider Haggard's Ayesha: "She Who Must Be Obeyed." (Only Ngurn escapes such descriptions.) London creates a brutal world that cannot comprehend and can only misuse "The Star-Born." As his protagonist stands before it, he juxtaposes Bassett's realization that it is a "colossal portent of higher life within the distances of the sidereal universe" with his fullest suggestion of the "horrors," the remnants of the living sacrifices offered to the god of twelve villages. London places Bassett amid the



violence and savagery of a stone-age world in order to gain a greater irony.

This is the story of Bassett's encounter with "The Red One," whose voice calls to him and leads him to his death. The man of science seeks, discovers, and understands the most important fact in Earth's history. ". . . He stared at it in amaze, his brain a racing wild-fire of hypotheses to account for this far-journeyer who had adventured the night of space, threaded the stars, and now rose before him . . ." Alien intelligence has tried to communicate with man. One immediately commends London's ingenuity and thinks how effective his irony in having "The Star-Born" fall among savages to become "The Red One." *What if* it had landed near New York, London, or Paris, and civilized man had shared . . . ?

Then, perhaps suddenly, one realizes that, consciously or unconsciously, London has probed far deeper than this surface irony. His presentation of Bassett—the eye of the beholder—becomes the key to the story. London tells us that "like the genuine scientist he was, [Bassett] would not be content to die until he had solved the secret of the sound." Commendable! To gain his end, "as only a man can do who is capable of martyring himself for the cause of science," he overcomes "all the fineness and delicacy of his nature" and makes love to the "unthinkably disgusting bushwoman." As though "in a laboratory," he works on Balatta's affection until she guides him to the shrine. Once there he kicks her aside as he contemplates the "prodigy"; and finally, near the point of death, he still dreams of escape so that he may return and seize "The Star-Born" and extract its secrets, "although the entire population of Guadalcanal be destroyed." One recalls that his experience has made him "inured to savagery"; indeed, it has. He cannot remember whether he shot the hanging girl, he may have burned the old bushman to death, and he stomped to death the wounded bushman lying at his feet in the jungle. Yet he dreams of communicating to civilization the secrets of "The Red One," secrets which "would make man's life on earth, individual and collective, spring up from its present mire to inconceivable heights of purity and power." For all his dreams, for all his intelligence and science, Bassett is as brutal as the island world, which thus becomes symbolic of Earth.

In this manner does London weave the context producing the full irony of Bassett's impassioned speculation: "Had they won Brotherhood? Or had they learned that the law of love imposed the penalty of weakness and decay? Was strife, life? Was the rule of all the universe the pitiless rule of natural selection?" Yes, what if "The Star-Born" had landed near New York, London, or Paris?

In a sense Bassett answers his own speculation. It is the *cri de coeur* of a man appalled by a mechanistic universe governed by determinism. Yet no "subversive radium speculations had shaken his steady scientific faith in the conservation of energy and the indestructibility of matter. Always and forever must there have been stars. And surely, in that cosmic ferment, all must be comparatively alike, comparatively of the same substance, or substances, save for the freaks of the ferment. All must obey, or compose, the same laws that ran without infraction through the entire experience of man." And so London remains a product of his milieu, tortured by the dream of what man might be, the reality of what he is. "The Red One" was written just months before his death.

Some readers will judge London's language and manner to be dated. Certainly at times his rhetoric is as questionable to the modern reader as is his attitude toward women, but both belong to the period. The story "The Red One" does not. One has only to shift from Guadalcanal in the Pacific to *Mare Crisium* on the Moon to find its re-enactment in a different idiom in Arthur C. Clarke's "The Sentinel." While their attitudes toward man and science differ, their stories contain the same sense of wonder, the same sense of cosmic loneliness.

## THE METAL MAN

Jack Williamson

(1928)

The Metal Man stands in a dark, dusty corner of the Tyburn College Museum. Just who is responsible for the figure being moved there, or why it was done, I do not know. To the casual eye it looks to be merely an ordinary life-size statue. The visitor who gives it a closer view marvels at the minute perfection of the detail of hair and skin; at the silent tragedy in the set, determined expression and poise; and at the remarkable greenish cast of the metal of which it is composed, but, most of all, at the peculiar mark upon the chest. It is a six-sided blot, of a deep crimson hue, with the surface oddly granular and strange wavering lines radiating from it—lines of a lighter shade of red.

Of course it is generally known that the Metal Man was once Professor Thomas Kelvin of the Geology Department. There are current many garbled and inaccurate accounts of the weird disaster that befell him. I believe I am the only one to whom he entrusted his story. It is to put these fantastic tales at rest that I have decided to publish the narrative that Kelvin sent me.

For some years he had been spending his summer vacations along the Pacific coast of Mexico, prospecting for radium. It was three months since he had returned from his last expedition. Evidently he had been successful beyond his wildest dreams. He did not come to Tyburn, but we heard stories of his selling millions of dollars worth of salts of radium, and giving as much more to institutions employing radium treatment. And it was said that he was sick of a strange disorder that defied the world's best special-

ists, and that he was pouring out his millions in the establishment of scholarships and endowments as if he expected to die soon.

One cold, stormy day, when the sea was running high on the unprotected coast which the cottage overlooks, I saw a sail out to the north. It rapidly drew nearer until I could tell that it was a small sailing schooner with auxiliary power. She was running with the wind, but a half mile offshore she came up into it and the sails were lowered. Soon a boat had put off in the direction of the shore. The sea was not so rough as to make the landing hazardous, but the proceeding was rather unusual, and, as I had nothing better to do, I went out in the yard before my modest house, which stands perhaps two hundred yards above the beach, in order to have a better view.

When the boat touched, four men sprang out and rushed it up higher on the sand. As a fifth tall man arose in the stern, the four picked up a great chest and started up in my direction. The fifth person followed leisurely. Silently, and without invitation, the men brought the chest up the beach, and into my yard, and set it down in front of the door.

The fifth man, a hard-faced Yankee skipper, walked up to me and said gruffly, "I am Captain McAndrews."

"I'm glad to meet you, Captain," I said, wondering. "There must be some mistake. I was not expecting—"

"Not at all," he said abruptly. "The man in that chest was transferred to my ship from the liner *Plutonia* three days ago. He has paid me for my services, and I believe his instructions have been carried out. Good day, sir."

He turned on his heel and started away.

"A man in the chest!" I exclaimed.

He walked on unheeding, and the seamen followed. I stood and watched them walk down to the boat and row back to the schooner. I gazed at its sails until they were lost against the dull blue of the clouds. Frankly, I feared to open the chest.

At last I nerved myself to do it. It was unlocked. I threw back the lid. With a shock of uncontrollable horror that left me half sick for hours, I saw in it, stark naked, with the strange crimson

mark standing lividly out from the pale green of the breast, the Metal Man, just as you may see him in the Museum.

Of course, I knew at once that it was Kelvin. For a long time I bent, trembling and staring at him. Then I saw an old canteen, purple-stained, lying by the head of the figure, and under it, a sheaf of manuscript. I got the latter out, walked with shaken steps to the easy chair in the house, and read the story that follows:

“Dear Russell,

“You are my best—my only—intimate friend. I have arranged to have my body and this story brought to you. I just drank the last of the wonderful purple liquid that has kept me alive since I came back, and I have scant time to finish this necessarily brief account of my adventure. But my affairs are in order and I die in peace. I had myself transferred to the schooner to-day, in order to reach you as soon as could be and to avoid possible complications. I trust Captain McAndrews. When I left France, I hoped to see you before the end. But Fate ruled otherwise.

“You know that the goal of my expedition was the headwaters of El Rio de la Sangre, ‘The River of Blood.’ It is a small stream whose strangely red waters flow into the Pacific. On my trip last year I had discovered that its waters were powerfully radioactive. Water has the power of absorbing radium emanations and emitting them in turn, and I hoped to find radium-bearing minerals in the bed of the upper river. Twenty-five miles above the mouth the river emerges from the Cordilleras. There are a few miles of rapids and back of them the river plunges down a magnificent waterfall. No exploring party had ever been back of the falls. I had hired an Indian guide and made a muleback journey to their foot. At once I saw the futility of attempting to climb the precipitous escarpment. But the water there was even more powerfully radioactive than at the mouth. There was nothing to do but return.

“This summer I bought a small monoplane. Though it was comparatively slow in speed and able to spend only six hours aloft, its

light weight and the small area needed for landing, made it the only machine suitable for use in so rough a country. The steamer left me again on the dock at the little town of Vaca Morena, with my stack of crates and gasoline tins. After a visit to the Alcade I secured the use of an abandoned shed for a hangar. I set about assembling the plane and in a fortnight I had completed the task. It was a beautiful little machine, with a wingspread of only twenty-five feet.

"Then, one morning, I started the engine and made a trial flight. It flew smoothly and in the afternoon I refilled the tanks and set off for the Rio de la Sangre. The stream looked like a red snake crawling out to the sea—there was something serpentine in its aspect. Flying high, I followed it, above the falls and into a region of towering mountain peaks. The river disappeared beneath a mountain. For a moment I thought of landing, and then it occurred to me that it flowed subterraneously for only a few miles, and would reappear farther inland.

"I soared over the cliffs and came over the crater.

"A great pool of green fire it was, fully ten miles across to the black ramparts at the farther side. The surface of the green was so smooth that at first I thought it was a lake, and then I knew that it must be a pool of heavy gas. In the glory of the evening sun the snow-capped summits about were brilliant argent crowns, dyed with crimson, tinged with purple and gold, tinted with strange and incredibly beautiful hues. Amid this wild scenery, nature had placed her greatest treasure. I knew that in the crater I would find the radium I sought.

"I circled about the place, rapt in wonder. As the sun sank lower, a light silver mist gathered on the peaks, half veiling their wonders, and flowed toward the crater. It seemed drawn with a strange attraction. And then the center of the green lake rose in a shining peak. It flowed up into a great hill of emerald fire. Something was rising in the green—carrying it up! Then the vapor flowed back, revealing a strange object, still veiled faintly by the green and silver clouds. It was a gigantic sphere of deep red, marked with four huge oval spots of dull black. Its surface was

smooth, metallic, and thickly studded with great spikes that seemed of yellow fire. It was a machine, inconceivably great in size. It spun slowly as it rose, on a vertical axis, moving with a deliberate, purposeful motion.

"It came up to my own level, paused and seemed to spin faster. And the silver mist was drawn to the yellow points, condensing, curdling, until the whole globe was a ball of lambent argent. For a moment it hung, unbelievably glorious in the light of the setting sun, and then it sank—ever faster—until it dropped like a plummet into the sea of green.

"And with its fall a sinister darkness descended upon the desolate wilderness of the peaks, and I was seized by a fear that had been deadened by amazement, and realized that I had scant time to reach Vaca Morena before complete darkness fell. Immediately I put the plane about in the direction of the town. According to my recollections, I had, at the time, no very definite idea of what it was I had seen, or whether the weird exhibition had been caused by human or natural agencies. I remember thinking that in such enormous quantities as undoubtedly the crater contained it, radium might possess qualities unnoticed in small amounts, or, again, that there might be present radioactive minerals at present unknown. It occurred to me also that perhaps some other scientists had already discovered the deposits and that what I had witnessed had been the trial of an airship in which radium was utilized as a propellant. I was considerably shaken, but not much alarmed. What happened later would have seemed incredible to me then.

"And then I noticed that a pale bluish luminosity was gathering about the cowl of the cockpit, and in a moment I saw that the whole machine, and even my own person, was covered with it. It was somewhat like St. Elmo's Fire, except that it covered all surfaces indiscriminately, instead of being restricted to sharp points. All at once I connected the phenomenon with the thing I had seen. I felt no physical discomfort, and the motor continued to run, but as the blue radiance continued to increase, I observed that my body felt heavier, and that the machine was being drawn

downward! My mind was flooded with wonder and terror. I fought to retain sufficient self-possession to fly the ship. My arms were soon so heavy that I could hold them upon the controls only with difficulty, and I felt a slight dizziness, due, no doubt, to the blood's being drawn from my head. When I recovered, I was already almost upon the green. Somehow, my gravitation had been increased and I was being drawn into the pit! It was possible to keep the plane under control only by diving and keeping at a high speed.

"I plunged into the green pool. The gas was not suffocating, as I had anticipated. In fact, I noticed no change in the atmosphere, save that my vision was limited to a few yards around. The wings of the plane were still distinctly discernible. Suddenly a smooth, sandy plain was murkily revealed below, and I was able to level the ship off enough for a safe landing. As I came to a stop I saw that the sand was slightly luminous, as the green mist seemed to be, and red. For a time I was confined to the ship by my own weight, but I noticed that the blue was slowly dissipating, and with it, its effect.

"As soon as I was able, I clambered over the side of the cockpit, carrying my canteen and automatic, which were themselves immensely heavy. I was unable to stand erect, but I crawled off over the coarse, shining red sand, stopping at frequent intervals to lie flat and rest. I was in deathly fear of the force that had brought me down. I was sure it had been directed by intelligence. The floor was so smooth and level that I supposed it to be the bottom of an ancient lake.

"Sometimes I looked fearfully back, and when I was a hundred yards away I saw a score of lights floating through the green toward the airplane. In the luminous murk each bright point was surrounded by a disc of paler blue. I didn't move, but lay and watched them float to the plane and wheel about it with a slow, heavy motion. Closer and lower they came until they reached the ground about it. The mist was so thick as to obscure the details of the scene.

"When I went to resume my flight, I found my excess of gravity



almost entirely gone, though I went on hands and knees for another hundred yards to escape possible observation. When I got to my feet, the plane was lost to view. I walked on for perhaps a quarter of a mile and suddenly realized that my sense of direction was altogether gone. I was completely lost in a strange world, inhabited by beings whose nature and disposition I could not even guess! And then I realized that it was the height of folly to walk about when any step might precipitate me into a danger of which I could know nothing. I had a peculiarly unpleasant feeling of helpless fear.

"The luminous red sand and the shining green of the air lay about in all directions, unbroken by a single solid object. There was no life, no sound, no motion. The air hung heavy and stagnant. The flat sand was like the surface of a dead and desolate sea. I felt the panic of utter isolation from humanity. The mist seemed to come closer; the strange evil in it seemed to grow more alert.

"Suddenly a darting light passed meteor-like through the green above and in my alarm I ran a few blundering steps. My foot struck a light object that rang like metal. The sharpness of the concussion filled me with fear, but in an instant the light was gone. I bent down to see what I had kicked.

"It was a metal bird—an eagle formed of metal—with the wings outspread, the talons gripping, the fierce beak set open. The color was white, tinged with green. It weighed no more than the living bird. At first I thought it was a cast model, and then I saw that each feather was complete and flexible. Somehow, a real eagle had been turned to metal! It seemed incredible, yet here was the concrete proof. I wondered if the radium deposits, which I had already used to explain so much, might account for this too. I knew that science held transmutation of elements to be possible—had even accomplished it in a limited way, and that radium itself was the product of the disintegration of ionium, and ionium that of uranium.

"I was struck with fright for my own safety. Might I be changed to metal? I looked to see if there were other metal things about.

And I found them in abundance. Half-buried in the glowing sands were metal birds of every kind—birds that had flown over the surrounding cliffs. And, at the climax of my search, I found a pterosaur—a flying reptile that had invaded the pit in ages past—changed to ageless metal. Its wingspread was fully fifteen feet—it would be a treasure in any museum.

“I made a fearful examination of myself, and to my unutterable horror, I perceived that the tips of my fingernails, and the fine hairs upon my hands, *were already changed to light green metal!* The shock unnerved me completely. You cannot conceive my horror. I screamed aloud in agony of soul, careless of the terrible foes that the sound might attract. I ran off wildly. I was blind, unreasoning. I felt no fatigue as I ran, only stark terror.

“Bright, swift-moving lights passed above in the green, but I heeded them not. Suddenly I came upon the great sphere that I had seen above. It rested motionless in a cradle of black metal. The yellow fire was gone from the spikes, but the red surface shone with a metallic luster. Lights floated about it. They made little bright spots in the green, like lanterns swinging in a fog. I turned and ran again, desperately. I took no note of direction, nor of the passage of time.

“Then I came upon a bank of violet vegetation. Waist-deep it was, grass-like, with thick narrow leaves, dotted with clusters of small pink blooms, and little purple berries. And a score of yards beyond I saw a sluggish red stream—El Rio de la Sangre. Here was cover at last. I threw myself down in the violet growth and lay sobbing with fatigue and terror. For a long time I was unable to stir or think. When I looked again at my fingernails, the tips of metal had doubled in width.

“I tried to control my agitation, and to think. Possibly the lights, whatever they were, would sleep by day. If I could find the plane, or scale the walls, I might escape the fearful action of the radioactive minerals before it was too late. I realized that I was hungry. I plucked off a few of the purple berries and tasted them. They had a salty, metallic taste, and I thought they would be valueless for food. But in pulling them I had inadvertently

squeezed the juice from one upon my fingers, and when I wiped it off I saw, to my amazement and my inexpressible joy, that the rim of metal was gone from the fingernails it had touched. I had discovered a means of safety! I suppose that the plants were able to exist there only because they had been so developed that they produced compounds counteracting the metal-forming emanations. Probably their evolution began when the action was far weaker than now, and only those able to withstand the more intense radiations had survived. I lost no time in eating a cluster of the berries, and then I poured the water from my canteen and filled it with their juice. I have analysed the fluid; it corresponds in some ways with the standard formulas for the neutralization of radium burns, and doubtless it saved me from the terrible burns caused by the action of ordinary radium. 161846

"I lay there until dawn, dozing a little at times, only to start into wakefulness without cause. It seemed that some daylight filtered through the green, for at dawn it grew paler, and even the red sand appeared less luminous. After eating a few more of the berries, I ascertained the direction in which the stagnant red water was moving, and set off down-stream, toward the west. In order to get an idea of where I was going, I counted my paces. I had walked about two and a half miles, along by the violet plants, when I came to an abrupt cliff. It towered up until it was lost in the green gloom. It seemed to be mostly of black pitchblende. The barrier seemed absolutely unscalable. The red river plunged out of sight by the cliff in a racing whirlpool.

"I walked off north around the rim. I had no very definite plan, except to try to find a way out over the cliffs. If I failed in that, it would be time to hunt the plane. I had a mortal fear of going near it, or of encountering the strange lights I had seen floating about it. As I went I saw none of them. I suppose they slept when it was day.

"I went on until it must have been noon, though my watch had stopped. Occasionally I passed metal trees that had fallen from above, and once, the metallic body of a bear that had slipped off a path above, some time in past ages. And there were metal

birds without number. They must have been accumulating through geological ages. All along up to this, the cliff had risen perpendicularly to the limit of my vision, but now I saw a wide ledge, with a sloping wall beyond it, dimly visible above. But the sheer wall rose a full hundred feet to the shelf, and I cursed at my inability to surmount it. For a time I stood there, devising impractical means for climbing it, driven almost to tears by my impotence. I was ravenously hungry, and thirsty as well.

"At last I went on.

"In an hour I came upon it. A slender cylinder of black metal, that towered a hundred feet into the greenish mist, and carried at the top, a great mushroom-shaped orange flame. It was a strange thing. The fire was as big as a balloon, bright and steady. It looked much like a great jet of combustible gas, burning as it streamed from the cylinder. I stood petrified in amazement, wondering vaguely at the what and why of the thing.

"And then I saw more of them back of it, dimly—scores of them—a whole forest of flames.

"I crouched back against the cliff, while I considered. Here I supposed, was the city of the lights. They were sleeping now, but still I had not the courage to enter. According to my calculations I had gone about fifteen miles. Then I must be, I thought, almost diametrically opposite the place where the crimson river flowed under the wall, with half of the rim unexplored. If I wished to continue my journey, I must go around the city, if I may call it that.

"So I left the wall. Soon it was lost to view. I tried to keep in view of the orange flames, but abruptly they were gone in the mist. I walked more to the left, but I came upon nothing but the wastes of red sand, with the green murk above. On and on I wandered. Then the sand and the air grew slowly brighter and I knew that night had fallen. The lights were soon passing to and fro. I had seen lights the night before, but they traveled high and fast. These, on the other hand, sailed low, and I felt that they were searching.

"I knew that they were hunting for me. I lay down in a little hollow in the sand. Vague, mist-veiled points of light came near and

passed. And then one stopped directly overhead. It descended and the circle of radiance grew about it. I knew that it was useless to run, and I could not have done so, for my terror. Down and down it came.

"And then I saw its form. The thing was of a glittering, blazing crystal. A great-six-sided, upright prism of red, a dozen feet in length, it was, with a six-pointed structure like a snowflake about the center, deep blue, with pointed blue flanges running from the points of the star to angles of the prism! Soft scarlet fire flowed from the points. And on each face of the prism, above and below the star, was a purple cone that must have been an eye. Strange pulsating lights flickered in the crystal. It was alive with light.

"It fell straight toward me!

"It was a terribly, utterly alien form of life. It was not human, not animal—not even life as we know it at all. And yet it had intelligence. But it was strange and foreign and devoid of feeling. It is curious to say that even then, as I lay beneath it, the thought came to me, that the thing and its fellows must have crystallized when the waters of the ancient sea dried out of the crater. Crystallizing salts take intricate forms.

"I drew my automatic and fired three times, but the bullets ricocheted harmlessly off the polished facets.

"It dropped until the gleaming lower point of the prism was not a yard above me. Then the scarlet fire reached out caressingly—flowed over my body. My weight grew less. I was lifted, held against the point. You may see its mark upon my chest. The thing floated into the air, carrying me. Soon others were drifting about. I was overcome with nausea. The scene grew black and I knew no more.

"I awoke floating free in a brilliant orange light. I touched no solid object. I writhed, kicked about—at nothingness. I could not move or turn over, because I could get a hold on nothing. My memory of the last two days seemed a nightmare. My clothing was still upon me. My canteen still hung, or rather floated, by my shoulder. And my automatic was in my pocket. I had the sensa-

tion that a great space of time had passed. There was a curious stiffness in my side. I examined it and found a red scar. I believe those crystal things had cut into me. And I found, with a horror you cannot understand, the mark upon my chest. Presently it dawned upon me that I was floating, devoid of gravity and free as an object in space, in the orange flame at the top of one of the black cylinders. The crystals knew the secret of gravity. It was vital to them. And peering about, I discerned, with infinite repulsion, a great flashing body, a few yards away. But its inner lights were dead, so I knew that it was day, and that the strange beings were sleeping.

"If I was ever to escape, this was the opportunity. I kicked, clawed desperately at the air, all in vain. I did not move an inch. If they had chained me, I could not have been more secure. I drew my automatic, resolved on a desperate measure. They would not find me again, alive. And as I had it in my hand, an idea came into my mind. I pointed the gun to the side, and fired six rapid shots. And the recoil of each explosion sent me drifting faster, rocket-wise, toward the edge.

"I shot out into the green. Had my gravity been suddenly restored, I might have been killed by the fall, but I descended slowly, and felt a curious lightness for several minutes. And to my surprise, when I struck the ground, the airplane was right before me! They had drawn it up by the base of the tower. It seemed to be intact. I started the engine with nervous haste, and sprang into the cockpit. As I started, another black tower loomed up abruptly before me, but I veered around it, and took off in safety.

"In a few moments I was above the green. I half expected the gravitational wave to be turned on me again, but higher and higher I rose unhindered until the accursed black walls were about me no longer. The sun blazed high in the heavens. Soon I had landed again at Vaca Morena.

"I had had enough of radium hunting. On the beach, where I landed, I sold the plane to a rancher at his own price, and told him to reserve a place for me on the next steamer, due in three days. Then I went to the town's single inn, ate, and went to bed.

At noon the next day, when I got up, I found that my shoes and the pockets of my clothes contained a good bit of the red sand from the crater that had been collected as I crawled about in flight from the crystal lights. I saved some of it for curiosity alone; but when I analysed it, I found it a radium compound so rich that the little handful was worth millions of dollars.

"But the fortune was of little value, for, despite frequent doses of the fluid from my canteen, and the best medical aid, I have suffered continually, and now that my canteen is empty, I am doomed.

"Your friend, Thomas Kelvin"

Thus the manuscript ends. If the reader doubts the truth of the letter, he may see the Metal Man in the Tyburn Museum.

## Notes

Two years after Hugo Gernsback founded *Amazing Stories*, Jack Williamson's first story, "The Metal Man," was published in its December 1928 issue. Because he has updated it for inclusion in his collection, *The Pandora Effect*, its early form is now primarily of historical interest. It has value in showing how a young writer—then in his teens, living on a farm in New Mexico—who was to become a master of the field approached the genre initially. Moreover, since one can assume that a first story is to some extent imitative, both its content and method should illustrate the characteristics of science fiction in the earliest period of the pulps.

Williamson does make use of several of the traditional conventions. The familiar narrative frame is there—providing Russell with the opportunity both to announce that he will put "these fantastic tales" to rest by publishing Kelvin's own narrative and to report how he discovered that manuscript; casting the main action once again into a remote, primitive setting; and finally arguing for the credibility of the manuscript in terms of the very existence of the metallic figure in the Tyburn College Museum. Russell and Kelvin both give their accounts in the first person in order to gain a dramatic immediacy and a sense of authenticity; indeed, except for the brief meeting with

Captain McAndrews, each is the only character introduced into his portion of "The Metal Man."

Perhaps this is the factor that leads to one's first over-all impression of the story: its indebtedness to various elements of nineteenth-century romanticism. Although they are not extensively developed, one notices the early descriptions of the natural scene—"wild scenery"—emphasizing its grandeur and loneliness. One cannot but recall those romantic painters, like Constable, who sketched minute human figures against the vastness of sea and sky and brooding mountains. The association seems appropriate because Kelvin is alone in the tiny monoplane. He becomes something of the archetypal Romantic figure, the Solitary ("You are my best—my only—intimate friend.") When he descends into the "pool of green fire," he transforms the landscape into a murky wasteland—into the flux of dreams, creating a sense of estrangement reminiscent, for example, of Poe's "The Narrative of A. Gordon Pym." He senses the "strange evil" of the scene, where there is "no life, no sound, no movement," feeling at last the "panic of utter desolation from humanity." One anticipates an excursion into Gothic hallucination and madness, particularly since he has repeatedly referred to his fear and horror. Indeed, fear is the only emotion he ascribes to himself.

At this point, if not earlier, one realizes the significant difference between the earlier Gothic and science fiction in the pulps. There is no plunge into hallucination and madness. Instead, Kelvin gives a fully rational, minute report of all that happens to him. There is no concern here for the "human consequences," nor, really, for the emotional response of the protagonist, as there was in the Gothic. The references to "deathly fear . . . helpless fear" are merely part of the paraphernalia intended to set the mood and divorce the action from the familiar world. For Kelvin, finally, is not the sensitive romantic protagonist whose narrative concerns itself primarily with his psychological and spiritual isolation. Kelvin is a means to an end; as noted, his personal voice gives immediacy and a sense of authenticity to an account of the wonders and incredible terror existing along the upper reaches of El Rio de Sangre. For early science fiction, perhaps especially in the pulp magazines, concentrated its focus upon the events and "gadgets," the ideas and science, *for their own sake*.

This leads to the topicality of "The Metal Man" and its science, one of the major reasons for Williamson's revision of the story before including it in *The Pandora Effect*. The unexplored interior of Mexico, the use of a small monoplane piloted by a single man, and radium: from this combination, if one did not know, he could still date the



story within a brief span of years. The radium, of course, provides the basis for the plausibility of Williamson's science. In 1928 no one would have objected to Kelvin's explanations of what initially "seemed incredible" to him, for Williamson permits him to wonder whether or not "in such enormous quantities" radium might not "possess qualities unnoticed in small amounts." Or perhaps an as yet undiscovered radioactive element is present in the area. Granting this, much becomes possible, for Kelvin also recalls that "science held the transmutation of elements to be possible." One must not forget that in the 1920s the public and the popular press—the Sunday tabloids, for example—were becoming conscious as never before of recent discoveries and were speculating upon their implications. It was a snowball effect, originating in the magazines of the late nineteenth century. Radium was new and "wonderful"; no one knew for certain its potentialities. In science fiction it became the last of those "ultimate" energies which so many protagonists sought after. Kelvin's discovery of its "mother lode" and his concern that he has observed a ship powered by radium exemplify several of the plot conventions associated with it.

The living spheres, that "terribly, utterly alien form of life," grow out of widespread speculations of the period that silicon might be able to form molecules complex enough to sustain life. Investigation has proved the hypothesis untenable, though such creatures have never completely vanished from sf. That whole line of thought undoubtedly reflected man's fear that he was alone in the universe. They have their importance as the "scientific" replacement for such monsters from folklore as the werewolf and the vampire.

In a prefatory note to his revision of "The Metal Man," Jack Williamson acknowledged that "the mood of the story owes something to A. Merritt, whose exotic atmospheres had fascinated me." In saying this, he pointed to the writer who, together with H. P. Lovecraft and the circle contributing to *Weird Tales*, sustained that type of fantasy which uses science almost solely to enhance an atmosphere of terror. It might well be called a modern Gothic. One part of the history of sf during the 1930s and 1940s must be concerned with the genre's break from their influence. Williamson excised much of the "romantic mystery" when he revised "The Metal Man" and updated its science. Perhaps the best way to discern quickly the way in which American sf has evolved is to read the two versions of "The Metal Man."



## BY THE WATERS OF BABYLON

Stephen Vincent Benét

(1937)

The north and the west and the south are good hunting ground, but it is forbidden to go east. It is forbidden to go to any of the Dead Places except to search for metal and then he who touches the metal must be a priest or the son of a priest. Afterward, both the man and the metal must be purified. These are the rules and the laws; they are well made. It is forbidden to cross the great river and look upon the place that was the Place of the Gods—this is most strictly forbidden. We do not even say its name though we know its name. It is there that spirits live, and demons—it is there that there are the ashes of the Great Burning. These things are forbidden—they have been forbidden since the beginning of time.

My father is a priest; I am the son of a priest. I have been in the Dead Places near us, with my father—at first, I was afraid. When my father went into the house to search for the metal, I stood by the door and my heart felt small and weak. It was a dead man's house, a spirit house. It did not have the smell of man, though there were old bones in a corner. But it is not fitting that a priest's son should show fear. I looked at the bones in the shadow and kept my voice still.

Then my father came out with the metal—a good, strong piece. He looked at me with both eyes but I had not run away. He gave me the metal to hold—I took it and did not die. So he knew that I was truly his son and would be a priest in my time. That was when I was very young—nevertheless, my brothers would not have done it, though they are good hunters. After that, they gave

me the good piece of meat and the warm corner by the fire. My father watched over me—he was glad that I should be a priest. But when I boasted or wept without a reason, he punished me more strictly than my brothers. That was right.

After a time, I myself was allowed to go into the dead houses and search for metal. So I learned the ways of those houses—and if I saw bones, I was no longer afraid. The bones are light and old—sometimes they will fall into dust if you touch them. But that is a great sin.

I was taught the chants and the spells—I was taught how to stop the running of blood from a wound and many secrets. A priest must know many secrets—that was what my father said. If the hunters think we do all things by chants and spells, they may believe so—it does not hurt them. I was taught how to read in the old books and how to make the old writings—that was hard and took a long time. My knowledge made me happy—it was like a fire in my heart. Most of all, I liked to hear of the Old Days and the stories of the gods. I asked myself many questions that I could not answer, but it was good to ask them. At night, I would lie awake and listen to the wind—it seemed to me that it was the voice of the gods as they flew through the air.

We are not ignorant like the Forest People—our women spin wool on the wheel, our priests wear a white robe. We do not eat grubs from the tree, we have not forgotten the old writings, although they are hard to understand. Nevertheless, my knowledge and my lack of knowledge burned in me—I wished to know more. When I was a man at last, I came to my father and said, “It is time for me to go on my journey. Give me your leave.”

He looked at me for a long time, stroking his beard, then he said at last, “Yes. It is time.” That night, in the house of the priesthood, I asked for and received purification. My body hurt but my spirit was a cool stone. It was my father himself who questioned me about my dreams.

He bade me look into the smoke of the fire and see—I saw and told what I saw. It was what I have always seen—a river, and, beyond it, a great Dead Place and in it the gods walking. I have al-

ways thought about that. His eyes were stern when I told him—he was no longer my father but a priest. He said, “This is a strong dream.”

“It is mine,” I said, while the smoke waved and my head felt light. They were singing the Star song in the outer chamber and it was like the buzzing of bees in my head.

He asked me how the gods were dressed and I told him how they were dressed. We know how they were dressed from the book, but I saw them as if they were before me. When I had finished, he threw the sticks three times and studied them as they fell.

“This is a very strong dream,” he said. “It may eat you up.”

“I am not afraid,” I said and looked at him with both eyes. My voice sounded thin in my ears but that was because of the smoke.

He touched me on the breast and the forehead. He gave me the bow and the three arrows.

“Take them,” he said. “It is forbidden to travel east. It is forbidden to cross the river. It is forbidden to go to the Place of the Gods. All these things are forbidden.”

“All these things are forbidden,” I said, but it was my voice that spoke and not my spirit. He looked at me again.

“My son,” he said. “Once I had young dreams. If your dreams do not eat you up, you may be a great priest. If they eat you, you are still my son. Now go on your journey.”

I went fasting, as is the law. My body hurt but not my heart. When the dawn came, I was out of sight of the village. I prayed and purified myself, waiting for a sign. The sign was an eagle. It flew east.

Sometimes signs are sent by bad spirits. I waited again on the flat rock, fasting, taking no food. I was very still—I could feel the sky above me and the earth beneath. I waited till the sun was beginning to sink. Then three deer passed in the valley, going east—they did not wind me or see me. There was a white fawn with them—a very great sign.

I followed them, at a distance, waiting for what would happen. My heart was troubled about going east, yet I knew that I must

go. My head hummed with my fasting—I did not even see the panther spring upon the white fawn. But, before I knew it, the bow was in my hand. I shouted and the panther lifted his head from the fawn. It is not easy to kill a panther with one arrow but the arrow went through his eye and into his brain. He died as he tried to spring—he rolled over, tearing at the ground. Then I knew I was meant to go east—I knew that was my journey. When the night came, I made my fire and roasted meat.

It is eight suns journey to the east and a man passes by many Dead Places. The Forest People are afraid of them but I am not. Once I made my fire on the edge of a Dead Place at night and, next morning, in the dead house, I found a good knife, little rusted. That was small to what came afterward but it made my heart feel big. Always when I looked for game, it was in front of my arrow, and twice I passed hunting parties of the Forest People without their knowing. So I knew my magic was strong and my journey clean, in spite of the law.

Toward the setting of the eighth sun, I came to the banks of the great river. It was half-a-day's journey after I had left the god-road—we do not use the god-roads now for they are falling apart into great blocks of stone, and the forest is safer going. A long way off, I had seen the water through trees but the trees were thick. At last, I came out upon an open place at the top of a cliff. There was the great river below, like a giant in the sun. It is very long, very wide. It could eat all the streams we know and still be thirsty. Its name is Ou-dis-sun, the Sacred, the Long. No man of my tribe had seen it, not even my father, the priest. It was magic and I prayed.

Then I raised my eyes and looked south. It was there, the Place of the Gods.

How can I tell what it was like—you do not know. It was there, in the red light, and they were too big to be houses. It was there with the red light upon it, mighty and ruined. I knew that in another moment the gods would see me. I covered my eyes with my hands and crept back into the forest.

Surely, that was enough to do, and live. Surely it was enough

to spend the night upon the cliff. The Forest People themselves do not come near. Yet, all through the night, I knew that I should have to cross the river and walk in the places of the gods, although the gods ate me up. My magic did not help me at all and yet there was a fire in my bowels, a fire in my mind. When the sun rose, I thought, "My journey has been clean. Now I will go home from my journey." But, even as I thought so, I knew I could not. If I went to the Place of the Gods, I would surely die, but, if I did not go, I could never be at peace with my spirit again. It is better to lose one's life than one's spirit, if one is a priest and the son of a priest.

Nevertheless, as I made the raft, the tears ran out of my eyes. The Forest People could have killed me without fight, if they had come upon me then, but they did not come. When the raft was made, I said the sayings for the dead and painted myself for death. My heart was cold as a frog and my knees like water, but the burning in my mind would not let me have peace. As I pushed the raft from the shore, I began my death song—I had the right. It was a fine song.

"I am John, son of John," I sang. "My people are the Hill People. They are the men.

I go into the Dead Places but I am not slain.

I take the metal from the Dead Places but I am not blasted.

I travel upon the god-roads and am not afraid. E-yah! I have killed the panther, I have killed the fawn!

E-yah! I have come to the great river. No man has come there before.

It is forbidden to go east, but I have gone, forbidden to go on the great river, but I am there.

Open your hearts, you spirits, and hear my song.

Now I go to the place of the gods, I shall not return.

My body is painted for death and my limbs weak, but my heart is big as I go to the place of the gods!"

All the same, when I came to the Place of the Gods, I was afraid, afraid. The current of the great river is very strong—it gripped my raft with its hands. That was magic, for the river it-

self is wide and calm. I could feel evil spirits about me, in the bright morning; I could feel their breath on my neck as I was swept down the stream. Never have I been so much alone—I tried to think of my knowledge, but it was a squirrel's heap of winter nuts. There was no strength in my knowledge any more and I felt small and naked as a new-hatched bird—alone upon the great river, the servant of the gods.

Yet, after a while, my eyes were opened and I saw. I saw both banks of the river—I saw that once there had been god-roads across it, though now they were broken and fallen like broken vines. Very great they were, and wonderful and broken—broken in the time of the Great Burning when the fire fell out of the sky. And always the current took me nearer to the Place of the Gods, and the huge ruins rose before my eyes.

I do not know the customs of rivers—we are the People of the Hills. I tried to guide my raft with the pole but it spun around. I thought the river meant to take me past the Place of the Gods and out into the Bitter Water of the legends. I grew angry then—my heart felt strong. I said aloud, "I am a priest and the son of a priest!" The gods heard me—they showed me how to paddle with the pole on one side of the raft. The current changed itself—I drew near to the Place of the Gods.

When I was very near, my raft struck and turned over. I can swim in our lakes—I swam to the shore. There was a great spike of rusted metal sticking out into the river—I hauled myself up upon it and sat there, panting. I had saved my bow and two arrows and the knife I found in the Dead Place but that was all. My raft went whirling downstream toward the Bitter Water. I looked after it, and thought if it had trod me under, at least I would be safely dead. Nevertheless, when I had dried my bow-string and restrung it, I walked forward to the Place of the Gods.

It felt like ground underfoot; it did not burn me. It is not true what some of the tales say, that the ground there burns forever, for I have been there. Here and there were the marks and stains of the Great Burning, on the ruins, that is true. But they were old marks and old stains. It is not true either, what some of our



priests say, that it is an island covered with fogs and enchantments. It is not. It is a great Dead Place—greater than any Dead Place we know. Everywhere in it there are god-roads, though most are cracked and broken. Everywhere there are the ruins of the high towers of the gods.

How shall I tell what I saw? I went carefully, my strung bow in my hand, my skin ready for danger. There should have been the wailings of spirits and the shrieks of demons, but there were not. It was very silent and sunny where I had landed—the wind and the rain and the birds that drop seeds had done their work—the grass grew in the cracks of the broken stone. It is a fair island—no wonder the gods built there. If I had come there, a god, I also would have built.

How shall I tell what I saw? The towers are not all broken—here and there one still stands, like a great tree in a forest, and the birds nest high. But the towers themselves look blind, for the gods are gone. I saw a fish hawk, catching fish in the river. I saw a little dance of white butterflies over a great heap of broken stones and columns. I went there and looked about me—there was a carved stone with cut letters, broken in half. I can read letters but I could not understand these. They said UBTREAS. There was also the shattered image of a man or a god. It had been made of white stone and he wore his hair tied back like a woman's. His name was ASHING, as I read on the cracked half of a stone. I thought it wise to pray to ASHING, though I do not know that god.

How shall I tell what I saw? There was no smell of man left, on stone or metal. Nor were there many trees in that wilderness of stone. There are many pigeons, nesting and dropping in the towers—the gods must have loved them, or, perhaps, they used them for sacrifices. There are wild cats that roam the god-roads, green-eyed, unafraid of man. At night they wail like demons but they are not demons. The wild dogs are more dangerous, for they hunt in a pack, but them I did not meet till later. Everywhere there are the carved stones, carved with magical numbers or words.

I went north—I did not try to hide myself. When a god or a demon saw me, then I would die, but meanwhile I was no longer afraid. My hunger for knowledge burned in me—there was so much that I could not understand. After a while, I knew that my belly was hungry. I could have hunted for my meat, but I did not hunt. It is known that the gods did not hunt as we do—they got their food from enchanted boxes and jars. Sometimes these are still found in the Dead Places—once, when I was a child and foolish, I opened such a jar and tasted it and found the food sweet. But my father found out and punished me for it strictly, for, often, that food is death. Now, though, I had long gone past what was forbidden, and I entered the likeliest towers, looking for the food of the gods.

I found it at last in the ruins of a great temple in the mid-city. A mighty temple it must have been, for the roof was painted like the sky at night with its stars—that much I could see, though the colors were faint and dim. It went down into great caves and tunnels—perhaps they kept their slaves there. But when I started to climb down, I heard the squeaking of rats, so I did not go—rats are unclean, and there must have been many tribes of them, from the squeaking. But near there, I found food, in the heart of a ruin, behind a door that still opened. I ate only the fruits from the jars—they had a very sweet taste. There was drink, too, in bottles of glass—the drink of the gods was strong and made my head swim. After I had eaten and drunk, I slept on the top of a stone, my bow at my side.

When I woke, the sun was low. Looking down from where I lay, I saw a dog sitting on his haunches. His tongue was hanging out of his mouth; he looked as if he were laughing. He was a big dog, with a gray-brown coat, as big as a wolf. I sprang up and shouted at him but he did not move—he just sat there as if he were laughing. I did not like that. When I reached for a stone to throw, he moved swiftly out of the way of the stone. He was not afraid of me; he looked at me as if I were meat. No doubt I could have killed him with an arrow, but I did not know if there were others. Moreover, night was falling.

I looked about me—not far away there was a great, broken god-road, leading north. The towers were high enough, but not so high, and while many of the dead-houses were wrecked, there were some that stood. I went toward this god-road, keeping to the heights of the ruins, while the dog followed. When I had reached the god-road, I saw that there were others behind him. If I had slept later, they would have come upon me asleep and torn out my throat. As it was, they were sure enough of me; they did not hurry. When I went into the dead-house, they kept watch at the entrance—doubtless they thought they would have a fine hunt. But a dog cannot open a door and I knew, from the books, that the gods did not like to live on the ground but on high.

I had just found a door I could open when the dogs decided to rush. Ha! They were surprised when I shut the door in their faces—it was a good door, of strong metal. I could hear their foolish baying beyond it but I did not stop to answer them. I was in darkness—I found stairs and climbed. There were many stairs, turning around till my head was dizzy. At the top was another door—I found the knob and opened it. I was in a long small chamber—on one side of it was a bronze door that could not be opened, for it had no handle. Perhaps there was a magic word to open it but I did not have the word. I turned to the door in the opposite side of the wall. The lock of it was broken and I opened it and went in.

Within, there was a place of great riches. The god who lived there must have been a powerful god. The first room was a small anteroom—I waited there for some time, telling the spirits of the place that I came in peace and not as a robber. When it seemed to me that they had had time to hear me, I went on. Ah, what riches! Few, even, of the windows had been broken—it was all as it had been. The great windows that looked over the city had not been broken at all though they were dusty and streaked with many years. There were coverings on the floors, the colors not greatly faded, and the chairs were soft and deep. There were pictures upon the walls, very strange, very wonderful—I remem-

ber one of a bunch of flowers in a jar—if you came close to it, you could see nothing but bits of color, but if you stood away from it, the flowers might have been picked yesterday. It made my heart feel strange to look at this picture—and to look at the figure of a bird, in some hard clay, on a table and see it so like our birds. Everywhere there were books and writings, many in tongues that I could not read. The god who lived there must have been a wise god and full of knowledge. I felt I had right there, as I sought knowledge also.

Nevertheless, it was strange. There was a washing place but no water—perhaps the gods washed in air. There was a cooking place but no wood, and though there was a machine to cook food, there was no place to put fire in it. Nor were there candles or lamps—there were things that looked like lamps but they had neither oil nor wick. All these things were magic, but I touched them and lived—the magic had gone out of them. Let me tell one thing to show. In the washing place, a thing said “Hot” but it was not hot to the touch—another thing said “Cold” but it was not cold. This must have been a strong magic but the magic was gone. I do not understand—they had ways—I wish that I knew.

It was close and dry and dusty in their house of the gods. I have said the magic was gone but that is not true—it had gone from the magic things but it had not gone from the place. I felt the spirits about me, weighing upon me. Nor had I ever slept in a Dead Place before—and yet, tonight, I must sleep there. When I thought of it, my tongue felt dry in my throat, in spite of my wish for knowledge. Almost I would have gone down again and faced the dogs, but I did not.

I had not gone through all the rooms when the darkness fell. When it fell, I went back to the big room looking over the city and made fire. There was a place to make fire and a box with wood in it, though I do not think they cooked there. I wrapped myself in a floorcovering and slept in front of the fire—I was very tired.

Now I tell what is very strong magic. I woke in the midst of the night. When I woke, the fire had gone out and I was cold. It

seemed to me that all around me there were whisperings and voices. I closed my eyes to shut them out. Some will say that I slept again, but I do not think that I slept. I could feel the spirits drawing my spirit out of my body as a fish is drawn on a line.

Why should I lie about it? I am a priest and the son of a priest. If there are spirits, as they say, in the small Dead Places near us, what spirits must there not be in that great Place of the Gods? And would not they wish to speak? After such long years? I know that I felt myself drawn as a fish is drawn on a line. I had stepped out of my body—I could see my body asleep in front of the cold fire, but it was not I. I was drawn to look out upon the city of the gods.

It should have been dark, for it was night, but it was not dark. Everywhere there were lights—lines of light—circles and blurs of light—ten thousand torches would not have been the same. The sky itself was alight—you could barely see the stars for the glow in the sky. I thought to myself “This is strong magic” and trembled. There was a roaring in my ears like the rushing of rivers. Then my eyes grew used to the light and my ears to the sound. I knew that I was seeing the city as it had been when the gods were alive.

That was a sight indeed—yes, that was a sight: I could not have seen it in the body—my body would have died. Everywhere went the gods, on foot and in chariots—there were gods beyond number and counting and their chariots blocked the streets. They had turned night to day for their pleasure—they did not sleep with the sun. The noise of their coming and going was the noise of many waters. It was magic what they could do—it was magic what they did.

I looked out of another window—the great vines of their bridges were mended and the god-roads went east and west. Restless, restless, were the gods and always in motion! They burrowed tunnels under rivers—they flew in the air. With unbelievable tools they did giant works—no part of the earth was safe from them, for, if they wished for a thing, they summoned it from the other side of the world. And always, as they labored and rested,

as they feasted and made love, there was a drum in their ears—the pulse of the giant city, beating and beating like a man's heart.

Were they happy? What is happiness to the gods? They were great, they were mighty, they were wonderful and terrible. As I looked upon them and their magic, I felt like a child—but a little more, it seemed to me, and they would pull down the moon from the sky. I saw them with wisdom beyond wisdom and knowledge beyond knowledge. And yet not all they did was well done—even I could see that—and yet their wisdom could not but grow until all was peace.

Then I saw their fate come upon them and that was terrible past speech. It came upon them as they walked the streets of their city. I have been in the fights with the Forest People—I have seen men die. But this was not like that. When gods war with gods, they use weapons we do not know. It was fire falling out of the sky and a mist that poisoned. It was the time of the Great Burning and the Destruction. They ran about like ants in the streets of their city—poor gods, poor gods! Then the towers began to fall. A few escaped—yes, a few. The legends tell it. But, even after the city had become a Dead Place, for many years the poison was still in the ground. I saw it happen, I saw the last of them die. It was darkness over the broken city and I wept.

All this, I saw. I saw it as I have told it, though not in the body. When I woke in the morning, I was hungry, but I did not think first of my hunger for my heart was perplexed and confused. I knew the reason for the Dead Places but I did not see why it had happened. It seemed to me it should not have happened, with all the magic they had. I went through the house looking for an answer. There was so much in the house I could not understand—and yet I am a priest and the son of a priest. It was like being on one side of the great river, at night, with no light to show the way.

Then I saw the dead god. He was sitting in his chair, by the window, in a room I had not entered before and, for the first moment, I thought that he was live. Then I saw the skin on the back of his hand—it was like dry leather. The room was shut, hot and

dry—no doubt that had kept him as he was. At first I was afraid to approach him—then the fear left me. He was sitting looking out over the city—he was dressed in the clothes of the gods. His age was neither young nor old—I could not tell his age. But there was wisdom in his face and great sadness. You could see that he would have not run away. He had sat at his window, watching his city die—then he himself had died. But it is better to lose one's life than one's spirit—and you could see from the face that his spirit had not been lost. I knew, that, if I touched him, he would fall into dust—and yet, there was something unconquered in the face.

That is all of my story, for then I knew he was a man—I knew then that they had been men, neither gods nor demons. It is a great knowledge, hard to tell and believe. They were men—they went a dark road, but they were men. I had no fear after that—I had no fear going home, though twice I fought off the dogs and once I was hunted for two days by the Forest People. When I saw my father again, I prayed and was purified. He touched my lips and my breast, he said, "You went away a boy. You come back a man and a priest." I said, "Father, they were men! I have been in the Place of the Gods and seen it! Now slay me, if it is the law—but still I know they were men."

He looked at me out of both eyes. He said, "The law is not always the same shape—you have done what you have done. I could not have done it my time, but you come after me. Tell!"

I told and he listened. After that, I wished to tell all the people but he showed me otherwise. He said, "Truth is a hard deer to hunt. If you eat too much truth at once, you may die of the truth. It was not idly that our fathers forbade the Dead Places." He was right—it is better the truth should come little by little. I have learned that, being a priest. Perhaps, in the old days, they ate knowledge too fast.

Nevertheless, we make a beginning. It is not for the metal alone we go to the Dead Places now—there are the books and the writings. They are hard to learn. And the magic tools are broken—but we can look at them and wonder. At least, we make

a beginning. And, when I am chief priest we shall go beyond the great river. We shall go to the Place of the Gods—the place new york—not one man but a company. We shall look for the images of the gods and find the god ASHING and the others—the gods Lincoln and Biltmore and Moscs. But they were men who built the city, not gods or demons. They were men. I remember the dead man's face. They were men who were here before us. We must build again.

## Notes

As science fiction has turned more and more to the future and to worlds other than Earth, one of the chief problems facing its writers has been the need to convince their readers as quickly as possible of the credibility of those settings. This is why the narrative frame has been so popular a convention. Many stories, like many plays, have succeeded or failed to the degree that the writers have handled initial exposition well. It is a high point of Benét's artistry that within a paragraph, drawing upon his interest in Americana, he sets up a tension between familiar details associated with the American Indian and foreboding implications of a future catastrophe and reversion to barbarism. Having established this initial tension, he exploits it through structuring the entire story as an account of an Indian medicine-dream quest, embodying in it three themes which have been of increasing importance to modern fiction: the initiation of a boy into adult society, the collapse of present-day civilization, and the conflict between the individual and his society's mythos.

"Hunting ground" is, of course, the key. With it Benét eases his readers into a scene that they believe they recognize. Given the first image, the additional details reinforce it. Such nomadic tribes of hunters, both history and anthropology tell us, have always been governed by stringent taboos; they have localized the habitations of gods and demons; and not only among Indians, but among all primitive peoples coming in contact with Western civilization, metal has proved an object receiving special attention, though one realizes at some point that here the reference to metal functions ambiguously in that it can cast the action into either the past or the future. The basic impression is rounded out by the narrator's assertion that this has been the estab-



lished order of things "since the beginning of time." And both the rhythm of Benét's prose and his choice of diction intensify the illusion. (Nor should one forget that many readers will easily accept "By the Waters of Babylon" as an evocation of the historic past because of their acquaintance with Benét's previous works.)

Yet by the end of that same first paragraph, he has already injected two disquietening details. Perhaps one can pass over "Dead Places," but he cannot evade the implications of "the ashes of the Great Burning," for in this context there is no historical association which will adequately contain it. (One may miss it by accepting it as the young narrator's exaggeration of the destruction of a village or a fort.) The first seeds have been sown. Others follow: the "dead man's house"—not tipi; the knife, little rusted; the very number of "dead places" and their association with the search for metal. By the time the youth has left the "god road" to stand on the cliffs above the "Ou-dis-sun," the reader knows that Benét has created a future separated from him by a disaster of untold magnitude.

John, son of John, sings his medicine song and enters New York, "that great Place of the Gods." One feels that someone who knows the city well enough could trace his route as he moves deeper into the desolation of the towers of Manhattan. The pack of scavenger dogs and his escape from them is a good touch; all such details suggest how much time has passed. But it is John himself who measures the remoteness of the scene from us—and therefore measures the incredible vastness of the devastation. The episode of the hot and cold faucets and his innocence of them is a fine touch. He looks upon commonplace things with fresh eyes and invests them with a sense of wonder that we have lost. How often does he use the word magic? It may have left the "magic things, but it had not gone from the place." And so, with spirits about him, weighing upon him, he has his medicine-dream.

He envisions New York in the fullness of its life and in the darkness of its destruction. A warrior who has seen men die finds it "terrible past speech," but he gives no dramatic visualization of that fire-storm and poisoned mist. (Perhaps Benét could not bring himself, emotionally or intellectually, to do so.) Benét names the place Babylon, that symbol of materialism, and John reflects, "Perhaps, in the old days, they ate knowledge too fast." The ancients may have gone the "dark road," but "it was magic what they did. They were great, they were mighty, they were wonderful and terrible." But, John decides, "It seemed to me it should not have happened, with all the magic they had."

Only after he encounters the mummified figure and learns that the gods were but "men who were here before us," does the reader fully understand that Benét did not sing the praises of those wondrous achievements themselves. Instead, he eulogized the, for him, unconquerable spirit of man whose wisdom cannot "but grow until all [is] peace." Having found a new faith, the young narrator can say for Benét, "We must build again."

One of the problems of science fiction, as noted, is that it can date quickly. It is a tribute to Benét, as well as a comment upon this century and our generation, that within the past few years students dealing with the story in class have readily accepted it as a dystopian forecast of reversion after atomic holocaust. Some of them were much surprised when reminded of its date, and when they realized that Benét had written it as a deeply personal response to the threat of mass-bombing and poison-gas attacks upon the major cities of Europe and America. He projected his anxiety from what had already occurred during the 1930s in Ethiopia, China, and Spain. For the students, however, "By the Waters of Babylon," moving beyond the "Great Burning" and "Destruction" and long-poisoned Earth, remains a portrait of an alternative future which we and our children's children face.

## TRENDS

Isaac Asimov

(1939)

John Harman was sitting at his desk, brooding, when I entered the office that day. It had become a common sight, by then, to see him staring out at the Hudson, head in hand, a scowl contorting his face—all too common. It seemed unfair for the little bantam to be eating his heart out like that day after day, when by rights he should have been receiving the praise and adulation of the world.

I flopped down into a chair. "Did you see the editorial in to-day's *Clarion*, boss?"

He turned weary, bloodshot eyes toward me. "No, I haven't. What do they say? Are they calling the vengeance of God down upon me again?" His voice dripped with bitter sarcasm.

"They're going a little farther *now*, boss," I answered. "Listen to this:

"Tomorrow is the day of John Harman's attempt at profaning the heavens. Tomorrow, in defiance of world opinion and world conscience, this man will defy God.

"It is not given to man to go wheresoever ambition and desire lead him. There are things forever denied him, and aspiring to the stars is one of these. Like Eve, John Harman wishes to eat of the forbidden fruit, and like Eve he will suffer due punishment therefor.

"But it is not enough, this mere talk. If we allow him thus to brook the vengeance of God, the trespass is mankind's and not Harman's alone. In allowing him to carry out his evil designs, we make ourselves accessory to the crime, and Divine vengeance will fall on all alike.

"It is, therefore, essential that immediate steps be taken to prevent Harman from taking off in his so-called rocketship tomorrow. The government in refusing to take such steps may force violent action. If it will make no move to confiscate the rocketship, or to imprison Harman, our enraged citizenry may have to take matters into their own hands—"

Harman sprang from his seat in a rage and, snatching the paper from my hands, threw it into the corner furiously. "It's an open call to a lynching," he raved. "Look at this!"

He cast five or six envelopes in my direction. One glance sufficed to tell what they were.

"More death threats?" I asked.

"Yes, exactly that. I've had to arrange for another increase in the police patrol outside the building and for a motorcycle police escort when I cross the river to the testing ground tomorrow."

He marched up and down the room with agitated stride. "I don't know what to do, Clifford. I've worked on the *Prometheus* almost ten years. I've slaved, spent a fortune of money, given up all that makes life worth while—and for what? So that a bunch of fool revivalists can whip up public sentiment against me until my very life isn't safe."

"You're in advance of the times, boss." I shrugged my shoulders in a resigned gesture which made him whirl upon me in a fury.

"What do you mean 'in advance of the times'? This is 1973. The world has been ready for space travel for half a century now. Fifty years ago, people were talking, dreaming of the day when man could free himself of Earth and plumb the depths of space. For fifty years, science has inched toward this goal, and now . . . now I finally have it, and behold! you say the world is not ready for me."

"The '20s and '30s were years of anarchy, decadence, and misrule, if you remember your history," I reminded him gently. "You cannot accept them as criteria."

"I know, I know. You're going to tell me of the First War of 1914, and the Second of 1940. It's an old story to me; my father

fought in the Second and my grandfather in the First. Nevertheless, those were the days when science *flourished*. Men were not afraid then; somehow they dreamed and dared. There was no such thing as conservatism when it came to matters mechanical and scientific. No theory was too radical to advance, no discovery too revolutionary to publish. Today, dry rot has seized the world when a great vision, such as space travel, is hailed as 'defiance of God.'

His head sank slowly down, and he turned away to hide his trembling lips and the tears in his eyes. Then he suddenly straightened again, eyes blazing: "But I'll show them. I'm going through with it, in spite of hell, Heaven and Earth. I've put too much into it to quit now."

"Take it easy, boss," I advised. "This isn't going to do you any good tomorrow, when you get into that ship. Your chances of coming out alive aren't too good now, so what will they be if you start out worn to pieces with excitement and worry?"

"You're right. Let's not think of it any more. Where's Shelton?"

"Over at the Institute arranging for the special photographic plates to be sent us."

"He's been gone a long time, hasn't he?"

"Not especially; but listen, boss, there's something wrong with him. I don't like him."

"Poppycock! He's been with me two years, and I have no complaints."

"All right." I spread my hands in resignation. "If you won't listen to me, you won't. Just the same I caught him reading one of those infernal pamphlets Otis Eldredge puts out. You know the kind: 'Beware, O mankind, for judgment draws near. Punishment for your sins is at hand. Repent and be saved.' And all the rest of the time-honored junk."

Harman snorted in disgust. "Cheap tub-thumping revivalist! I suppose the world will never outgrow his type—not while sufficient morons exist. Still you can't condemn Shelton just because he reads it. I've read them myself on occasion."

"He *says* he picked it up on the sidewalk and read it in 'idle

curiosity,' but I'm pretty sure I saw him take it out of his wallet. Besides, he goes to church every Sunday."

"Is *that* a crime? Everyone does, nowadays!"

"Yes, but not to the Twentieth Century Evangelical Society. That's Eldredge's."

That jolted Harman. Evidently, it was the first he had heard of it. "Say, that is something, isn't it? We'll have to keep an eye on him, then."

But after that, things started to happen, and we forgot all about Shelton—until it was too late.

There was nothing much left to do that last day before the test, and I wandered into the next room, where I went over Harman's final report to the Institute. It was my job to correct any errors or mistakes that crept in, but I'm afraid I wasn't very thorough. To tell the truth, I couldn't concentrate. Every few minutes, I'd fall into a brown study.

It seemed queer, all this fuss over space travel. When Harman had first announced the approaching perfection of the *Prometheus*, some six months before, scientific circles had been jubilant. Of course, they were cautious in their statements and qualified everything they said, but there was real enthusiasm.

However, the masses didn't take it that way. It seems strange, perhaps, to you of the twenty-first century, but perhaps we should have expected it in those days of '73. People weren't very progressive then. For years there had been a swing toward religion, and when the churches came out unanimously against Harman's rocket—well, there you were.

At first, the opposition confined itself to the churches and we thought it might play itself out. But it didn't. The papers got hold of it, and literally spread the gospel. Poor Harman became an anathema to the world in a remarkably short time, and then his troubles began.

He received death threats, and warnings of divine vengeance every day. He couldn't walk the streets in safety. Dozens of sects, to none of which he belonged—he was one of the very rare free-

thinkers of the day, which was another count against him—excommunicated him and placed him under special interdict. And, worst of all, Otis Eldredge and his Evangelical Society began stirring up the populace.

Eldredge was a queer character—one of those geniuses, in their way, that arise every so often. Gifted with a golden tongue and a sulphurous vocabulary, he could fairly hypnotize a crowd. Twenty thousand people were so much putty in his hands, could he only bring them within earshot. And for four months, he thundered against Harman; for four months, a pouring stream of denunciation rolled forth in oratorical frenzy. And for four months, the temper of the world rose.

But Harman was not to be daunted. In his tiny, five-foot-two body, he had enough spirit for five six-footers. The more the wolves howled, the firmer he held his ground. With almost divine—his enemies said, diabolical—obstinacy, he refused to yield an inch. Yet his outward firmness was to me, who knew him, but an imperfect concealment of the great sorrow and bitter disappointment within.

The ring of the doorbell interrupted my thoughts at that point and brought me to my feet in surprise. Visitors were very few those days.

I looked out the window and saw a tall, portly figure talking with Police Sergeant Cassidy. I recognized him at once as Howard Winstead, head of the Institute. Harman was hurrying out to greet him, and after a short exchange of phrases, the two entered the office. I followed them in, being rather curious as to what could have brought Winstead, who was more politician than scientist, here.

Winstead didn't even seem very comfortable, at first; not his usual suave self. He avoided Harman's eyes in an embarrassed manner and mumbled a few conventionalities concerning the weather. Then he came to the point with direct, undiplomatic bluntness.

"John," he said, "how about postponing the trial for a time?"

"You really mean abandoning it altogether, don't you? Well, I won't, and that's final."

Winstead lifted his hand. "Wait now, John, don't get excited. Let me state my case. I know the Institute agreed to give you a free hand, and I know that you paid at least half the expenses out of your own pocket, but—you can't go through with it."

"Oh, can't I, though?" Harman snorted derisively.

"Now listen, John, you know your science, but you don't know your human nature, and I do. This is not the world of the 'Mad Decades,' whether you realize it or not. There have been profound changes since 1940." He swung into what was evidently a carefully prepared speech.

"After the First World War, you know, the world as a whole swung away from religion and toward freedom from convention. People were disgusted and disillusioned, cynical and sophisticated. Eldredge calls them 'wicked and sinful.' In spite of that, science flourished—some say it always fares best in such an unconventional period. From *its* standpoint it was a 'Golden Age.'

"However, you know the political and economic history of the period. It was a time of political chaos and international anarchy; a suicidal, brainless, insane period—and it culminated in the Second World War. And just as the First War led to a period of sophistication, so the Second initiated a return to religion.

"People were disgusted with the 'Mad Decades.' They had had enough of it, and feared, beyond all else, a return to it. To remove that possibility, they put the ways of those decades behind them. Their motives, you see, were understandable and laudable. All the freedom, all the sophistication, all the lack of convention were gone—swept away clean. We are living now in a second Victorian age; and naturally so, because human history goes by swings of the pendulum and this is the swing toward religion and convention.

"One thing only is left over since those days of half a century ago. That one thing is the respect of humanity for science. We have prohibition; smoking for women is outlawed; cosmetics



are forbidden; low dresses and short skirts are unheard of; divorce is frowned upon. But science has not been confined—as *yet*.

"It behooves science, then, to be circumspect, to refrain from arousing the people. It will be very easy to make them believe—and Otis Eldredge has come perilously close to doing it in some of his speeches—that it was science that brought about the horrors of the Second World War. Science outstripped culture, they will say, technology outstripped sociology, and it was that unbalance that came so near to destroying the world. Somehow, I am inclined to believe they are not so far wrong, at that.

"But do you know what would happen, if it ever *did* come to that? Scientific research may be forbidden; or, if they don't go that far, it will certainly be so strictly regulated as to stifle in its own decay. It will be a calamity from which humanity would not recover for a millennium.

"And it is your trial flight that may precipitate all this. You are arousing the public to a stage where it will be difficult to calm them. I warn you, John. The consequences will be on your head."

There was absolute silence for a moment and then Harman forced a smile. "Come, Howard, you're letting yourself be frightened by shadows on the wall. Are you trying to tell me that it is your serious belief that the world as a whole is ready to plunge into a second Dark Ages? After all, the intelligent men are on the side of science, aren't they?"

"If they are, there aren't many of them left from what I see." Winstead drew a pipe from his pocket and filled it slowly with tobacco as he continued: "Eldredge formed a League of the Righteous two months ago—they call it the L. R.—and it has grown unbelievably. *Twenty million is its membership in the United States alone*. Eldredge boasts that after the next election Congress will be his; and there seems to be more truth than bluff in that. Already there has been strenuous lobbying in favor of a bill outlawing rocket experiments, and laws of that type have been enacted in Poland, Portugal, and Rumania. Yes, John, we

are perilously close to open persecution of science." He was smoking now in rapid, nervous puffs.

"But if I succeed, Howard, if I succeed! What then?"

"Bah! You know the chances for that. Your own estimate gives you only one chance in ten of coming out alive."

"What does that signify? The next experimenter will learn by my mistakes, and the odds will improve. That's the scientific method."

"The mob doesn't know anything about the scientific method; and they don't want to know. Well, what do you say? Will you call it off?"

Harman sprang to his feet, his chair tumbling over with a crash. "Do you know what you ask? Do you want me to give up my life's work, my dream, just like that? Do you think I'm going to sit back and wait for your *dear* public to become benevolent? Do you think they'll change in *my* lifetime?

"Here's my answer: I have an inalienable right to pursue knowledge. Science has an inalienable right to progress and develop without interference. The world, in interfering with me, is wrong; I am right. And it shall go hard, but I *will not* abandon my rights."

Winstead shook his head sorrowfully. "You're wrong, John, when you speak of 'inalienable' rights. What you call a 'right' is merely a *privilege, generally agreed upon*. What society accepts, is right; what it does not, is wrong."

"Would your friend, Eldredge, agree to such a definition of his 'righteousness'?" questioned Harman bitterly.

"No, he would not, but that's irrelevant. Take the case of those African tribes who used to be cannibals. They were brought up as cannibals, have the long tradition of cannibalism, and their society accepts the practice. To *them*, cannibalism is *right*, and why shouldn't it be? So you see how relative the whole notion is, and how inane your conception of 'inalienable' rights to perform experiments is."

"You know, Howard, you missed your calling when you didn't become a lawyer." Harman was really growing angry. "You've been bringing out every moth-eaten argument you can think of.

For God's sake, man, are you trying to pretend that it is a crime to refuse to run with the crowd? Do you stand for absolute uniformity, ordinariness, orthodoxy, commonplaceness? Science would die far sooner under the program you outline than under governmental prohibition."

Harman stood up and pointed an accusing finger at the other. "You're betraying science and the tradition of those glorious rebels: Galileo, Darwin, Einstein and their kind. My rocket leaves tomorrow on schedule in spite of you and every other stuffed shirt in the United States. That's that, and I refuse to listen to you any longer. So you can just get out."

The head of the Institute, red in the face, turned to me. "You're my witness, young man, that I warned this obstinate nitwit, this . . . this harebrained fanatic." He spluttered a bit, and then strode out, the picture of fiery indignation.

Harman turned to me when he had gone: "Well, what do *you* think? I suppose you agree with him."

There was only one possible answer and I made it: "You're not paying me to do anything else but follow orders, boss. I'm sticking with you."

Just then Shelton came in and Harman packed us both off to go over the calculations of the orbit of flight for the umpteenth time, while he himself went off to bed.

The next day, July 15th, dawned in matchless splendor, and Harman, Shelton, and myself were in an almost gay mood as we crossed the Hudson to where the *Prometheus*—surrounded by an adequate police guard—lay in gleaming grandeur.

Around it, roped off at an apparently safe distance, rolled a crowd of gigantic proportions. Most of them were hostile, raucously so. In fact, for one fleeting moment, as our motorcycle police escort parted the crowds for us, the shouts and imprecations that reached our ears almost convinced me that we should have listened to Winstead.

But Harman paid no attention to them at all, after one supercilious sneer at a shout of: "There goes John Harman, son of Be-

lial." Calmly, he directed us about our task of inspection. I tested the foot-thick outer walls and the air locks for leaks, then made sure the air purifier worked. Shelton checked up on the repellent screen and the fuel tanks. Finally, Harman tried on the clumsy spacesuit, found it suitable, and announced himself ready.

The crowd stirred. Upon a hastily erected platform of wooden planks piled in confusion by some in the mob, there rose up a striking figure. Tall and lean; with thin, ascetic countenance; deep-set, burning eyes, peering and half closed; a thick, white mane crowning all—it was Otis Eldredge. The crowd recognized him at once and many cheered. Enthusiasm waxed and soon the entire turbulent mass of people shouted themselves hoarse over him.

He raised a hand for silence, turned to Harman, who regarded him with surprise and distaste, and pointed a long, bony finger at him:

"John Harman, son of the devil, spawn of Satan, you are here for an evil purpose. You are about to set out upon a blasphemous attempt to pierce the veil beyond which man is forbidden to go. You are tasting of the forbidden fruit of Eden and beware that you taste not of the fruits of sin."

The crowd cheered him to the echo and he continued: "The finger of God is upon you, John Harman. He shall not allow His works to be defiled. You die today, John Harman." His voice rose in intensity and his last words were uttered in truly prophetlike fervor.

Harman turned away in disdain. In a loud, clear voice, he addressed the police sergeant: "Is there any way, officer, of removing these spectators. The trial flight may be attended by some destruction because of the rocket blasts, and they're crowding too close."

The policeman answered in a crisp, unfriendly tone: "If you're afraid of being mobbed, say so, Mr. Harman. You don't have to worry, though, we'll hold them back. And as for danger—from *that* contraption—" He sniffed loudly in the direction of the *Prometheus*, evoking a torrent of jeers and yells.

Harman said nothing further, but climbed into the ship in silence. And when he did so, a queer sort of stillness fell over the mob; a palpable tension. There was no attempt at rushing the ship, an attempt I had thought inevitable. On the contrary, Otis Eldredge himself shouted to everyone to move back.

"Leave the sinner to his sins," he shouted. "'Vengeance is mine,' saith the Lord."

As the moment approached, Shelton nudged me. "Let's get out of here," he whispered in a strained voice. "Those rocket blasts are poison." Saying this, he broke into a run, beckoning anxiously for me to follow.

We had not yet reached the fringes of the crowd when there was a terrific roar behind me. A wave of heated air swept over me. There was the frightening hiss of some speeding object past my ear, and I was thrown violently to the ground. For a few moments I lay dazed, my ears ringing and my head reeling.

When I staggered drunkenly to my feet again, it was to view a dreadful sight. Evidently, the entire fuel supply of the *Prometheus* had exploded at once, and where it had lain a moment ago there was now only a yawning hole. The ground was strewn with wreckage. The cries of the hurt were heartrending and the mangled bodies—but I won't try to describe those.

A weak groan at my feet attracted my attention. One look, and I gasped in horror, for it was Shelton, the back of his head a bloody mass.

"I did it." His voice was hoarse and triumphant but withal so low that I could scarcely hear it. "I did it. I broke open the liquid-oxygen compartments and when the spark went through the acetylide mixture the whole cursed thing exploded." He gasped a bit and tried to move but failed. "A piece of wreckage must have hit me, but I don't care. I'll die knowing that—"

His voice was nothing more than a rasping rattle, and on his face was the ecstatic look of a martyr. He died then, and I could not find it in my heart to condemn him.

It was then I first thought of Harman. Ambulances from Man-

hattan and from Jersey City were on the scene, and one had sped to a wooden patch some five hundred yards distant where, caught in the treetops, lay a splintered fragment of the *Prometheus*' forward compartment. I limped there as fast as I could, but they had dragged out Harman and clanged away long before I could reach them.

After that, I didn't stay. The disorganized crowd had no thought but for the dead and wounded *now*, but when they recovered, and bent their thoughts to revenge, my life would not be worth a straw. I followed the dictates of the better part of valor and quietly disappeared.

The next week was a hectic one for me. During that time, I lay in hiding at the home of a friend, for it would have been more than my life was worth to allow myself to be seen and recognized. Harman, himself, lay in a Jersey City hospital, with nothing more than superficial cuts and bruises—thanks to the backward force of the explosion and the saving clump of trees which cushioned the fall of the *Prometheus*. It was on him that the brunt of the world's wrath fell.

New York, and the rest of the world also, just about went crazy. Every last paper in the city came out with gigantic headlines, "28 Killed, 73 Wounded—the Price of Sin," printed in blood-red letters. The editorials howled for Harman's life, demanding he be arrested and tried for first-degree murder.

The dreaded cry of "Lynch him!" was raised throughout the five boroughs, and milling thousands crossed the river and converged on Jersey City. At their head was Otis Eldredge, both legs in splints, addressing the crowd from an open automobile as they marched. It was a veritable army.

Mayor Carson of Jersey City called out every available policeman and phoned frantically to Trenton for the State militia. New York clamped down on every bridge and tunnel leaving the city—but not till after many thousands had left.

There were pitched battles on the Jersey coast that sixteenth of July. The vastly outnumbered police clubbed indiscriminately

but were gradually pushed back and back. Mounties rode down upon the mob relentlessly but were swallowed up and pulled down by sheer force of numbers. Not until tear gas was used, did the crowd halt—and even then they did not retreat.

The next day, martial law was declared, and the State militia entered Jersey City. That was the end for the lynchers. Eldredge was called to confer with the mayor, and after the conference ordered his followers to disperse.

In a statement to the newspapers, Mayor Carson said: "John Harman must needs suffer for his crime, but it is essential that he do so legally. Justice must take its course, and the State of New Jersey will take all necessary measures."

By the end of the week, normality of a sort had returned and Harman slipped out of the public spotlight. Two more weeks and there was scarcely a word about him in the newspapers, excepting such casual references to him in the discussion of the new Zittman antirocketry bill that had just passed both houses of Congress by unanimous votes.

Yet he remained in the hospital still. No legal action had been taken against him, but it began to appear that a sort of indefinite imprisonment "for his own protection" might be his eventual fate. Therefore, I bestirred myself to action.

Temple Hospital is situated in a lonely and outlying district of Jersey City, and on a dark, moonless night I experienced no difficulty at all in invading the grounds unobserved. With a facility that surprised me, I sneaked in through a basement window, slugged a sleepy interne into insensibility and proceeded to Room 15E, which was listed in the books as Harman's.

"Who's there?" Harman's surprised shout was music in my ears.

"Sh! Quiet! It's I, Cliff McKenny."

"You! What are you doing here?"

"Trying to get you out. If I don't, you're liable to stay here the rest of your life. Come on, let's go."

I was hustling him into his clothes while we were speaking, and in no time at all we were sneaking down the corridor. We were

out safely and into my waiting car before Harman collected his scattered wits sufficiently to begin asking questions.

"What's happened since that day?" was the first question. "I don't remember a thing after starting the rocket blasts until I woke up in the hospital."

"Didn't they tell you anything?"

"Not a damn thing," he swore. "I asked until I was hoarse."

So I told him the whole story from the explosion on. His eyes were wide with shocked surprise when I told of the dead and wounded, and filled with wild rage when he heard of Shelton's treachery. The story of the riots and attempted lynching evoked a muffled curse from between set lips.

"Of course, the papers howled 'murder,'" I concluded, "but they couldn't pin *that* on you. They tried manslaughter, but there were too many eyewitnesses that had heard your request for the removal of the crowd and the police sergeant's absolute refusal to do so. That, of course, absolved you from all blame. The police sergeant himself died in the explosion, and they couldn't make him the goat.

"Still, with Eldredge yelling for your hide, you're never safe. It would be best to leave while able."

Harman nodded his head in agreement. "Eldredge survived the explosion, did he?"

"Yes, worse luck. He broke both legs, but it takes more than that to shut his mouth."

Another week had passed before I reached our future haven—my uncle's farm in Minnesota. There, in a lonely and out-of-the-way rural community, we stayed while the hullabaloo over Harman's disappearance gradually died down and the perfunctory search for us faded away. The search, by the way, was short indeed, for the authorities seemed more relieved than concerned over the disappearance.

Peace and quiet did wonders with Harman. In six months he seemed a new man—quite ready to consider a second attempt at



space travel. Not all the misfortunes in the world could stop him, it seemed, once he had his heart set on something.

"My mistake the first time," he told me one winter's day, "lay in announcing the experiment. I should have taken the temper of the people into account, as Winstead said. This time, however"—he rubbed his hands and gazed thoughtfully into the distance—"I'll steal a march on them. The experiment will be performed in secrecy—absolute secrecy."

I laughed grimly. "It would have to be. Do you know that all future experiments in rocketry, even entirely theoretical research, is a crime punishable by death?"

"Are you afraid, then?"

"Of course not, boss. I'm merely stating a fact. And here's another plain fact. We two can't build a ship all by ourselves, you know."

"I've thought of that and figured a way out, Cliff. What's more, I can take care of the money angle, too. You'll have to do some traveling, though.

"First, you'll have to go to Chicago and look up the firm of Roberts & Scranton and withdraw everything that's left of my father's inheritance, which," he added in a rueful aside, "is more than half gone on the first ship. Then, locate as many of the old crowd as you can: Harry Jenkins, Joe O'Brien, Neil Stanton—all of them. And get back as quickly as you can. I am tired of delay."

Two days later, I left for Chicago. Obtaining my uncle's consent to the entire business was a simple affair. "Might as well be strung up for a herd of sheep as for a lamb," he grunted, "so go ahead. I'm in enough of a mess now and can afford a bit more, I guess."

It took quite a bit of traveling and even more smooth talk and persuasion before I managed to get four men to come: the three mentioned by Harman and one other, a Saul Simonoff. With that skeleton force and with the half million still left Harman out of the reputed millions left him by his father, we began work.

The building of the *New Prometheus* is a story in itself—a long story of five years of discouragement and insecurity. Little by

little, buying girders in Chicago, beryl-steel plates in New York, a vanadium cell in San Francisco, miscellaneous items in scattered corners of the nation, we constructed the sister ship to the ill-fated *Prometheus*.

The difficulties in the way were all but insuperable. To prevent drawing suspicion down upon us, we had to spread our purchases over periods of time, and to see to it, as well, that the orders were made out to various places. For this we required the co-operation of various friends, who, to be sure, did not know at the time for exactly what purpose the purchases were being used.

We had to synthesize our own fuel, ten tons of it, and that was perhaps the hardest job of all; certainly it took the most time. And finally, as Harman's money dwindled, we came up against our biggest problem—the necessity of economizing. From the beginning we had known that we could never make the *New Prometheus* as large or as elaborate as the first ship had been, but it soon developed that we would have to reduce its equipment to a point perilously close to the danger line. The repulsive screen was barely satisfactory and all attempts at radio communication were perforce abandoned.

And as we labored through the years, there in the backwoods of northern Minnesota, the world moved on, and Winstead's prophecies proved to have hit amazingly near the mark.

The events of those five years—from 1973 to 1978—are well known to the schoolboys of today, the period being the climax of what we now call the "Neo-Victorian Age." The happenings of those years seem well-nigh unbelievable as we look back upon them now.

The outlawing of all research on space travel came in the very beginning, but was a bare start compared to the anti-scientific measures taken in the ensuing years. The next congressional elections, those of 1974, resulted in a Congress in which Eldredge controlled the House and held the balance of power in the Senate.

Hence, no time was lost. At the first session of the ninety-third

Congress, the famous Stonely-Carter bill was passed. It established the Federal Scientific Research Investigatory Bureau—the FSRIB—which was given full power to pass on the legality of all research in the country. Every laboratory, industrial or scholastic, was required to file information, in advance, on all projected research before this new bureau, which could, and did, ban absolutely all such as it disapproved of.

The inevitable appeal to the Supreme Court came on November 9, 1974, in the case of Westly vs. Simmons, in which Joseph Westly of Stanford upheld his right to continue his investigations on atomic power on the grounds that the Stonely-Carter act was unconstitutional.

How we five, isolated amid the snowdrifts of the Middle West, followed that case! We had all the Minneapolis and St. Paul papers sent to us—always reaching us two days late—and devoured every word of print concerning it. For the two months of suspense work ceased entirely on the *New Prometheus*.

It was rumored at first that the Court would declare the act unconstitutional, and monster parades were held in every large town against this eventuality. The League of the Righteous brought its powerful influence to bear—and even the Supreme Court submitted. It was five to four for constitutionality. *Science strangled by the vote of one man*.

And it was strangled beyond a doubt. The members of the bureau were Eldredge men, heart and soul, and nothing that would not have immediate industrial use was passed.

"Science has gone too far," said Eldredge in a famous speech at about that time. "We must halt it indefinitely, and allow the world to catch up. Only through that and trust in God may we hope to achieve universal and permanent prosperity."

But this was one of Eldredge's last statements. He had never fully recovered from the broken legs he received that fateful day in July of '73, and his strenuous life since then strained his constitution past the breaking point. On February 2, 1976, he passed away amid a burst of mourning unequalled since Lincoln's assassination.

His death had no immediate effect on the course of events. The rules of the FSRIB grew, in fact, in stringency as the years passed. So starved and choked did science become, that once more colleges found themselves forced to reinstate philosophy and the classics as the chief studies—and at that the student body fell to the lowest point since the beginning of the twentieth century.

These conditions prevailed more or less throughout the civilized world, reaching even lower depths in England, and perhaps least depressing in Germany, which was the last to fall under the “Neo-Victorian” influence.

The nadir of science came in the spring of 1978, a bare month before the completion of the *New Prometheus*, with the passing of the “Easter Edict”—it was issued the day before Easter. By it, *all* independent research or experimentation was absolutely forbidden. The FSRIB thereafter reserved the right to allow only such research as it *specifically requested*.

John Harman and I stood before the gleaming metal of the *New Prometheus* that Easter Sunday; I in the deepest gloom, and he in an almost jovial mood.

“Well, Clifford, my boy,” said he, “the last ton of fuel, a few polishing touches, and I am ready for my second attempt. This time there will be no Sheltons among us.” He hummed a hymn. That was all the radio played those days, and even we rebels sang them from sheer frequency of repetition.

I grunted sourly: “It’s no use, boss. Ten to one, you end up somewhere in space, and even if you come back, you’ll most likely be hung by the neck. We can’t win.” My head shook dolefully from side to side.

“Bah! This state of affairs can’t last, Cliff.”

“I think it will. Winstead was right that time. The pendulum swings, and since 1945 it’s been swinging against us. We’re ahead of the times—or behind them.”

“Don’t speak of that fool, Winstead. You’re making the same mistake he did. Trends are things of centuries and millennia,

not years or decades. For five hundred years we have been moving toward science. You can't reverse that in thirty years."

"Then what are we doing?" I asked sarcastically.

"We're going through a momentary reaction following a period of too-rapid advance in the Mad Decades. Just such a reaction took place in the Romantic Age—the first Victorian Period—following the too-rapid advance of the eighteenth-century Age of Reason."

"Do you really think so?" I was shaken by his evident self-assurance.

"Of course. This period has a perfect analogy in the spasmodic "revivals" that used to hit the small towns in America's Bible Belt a century or so ago. For a week, perhaps, everyone would get religion and virtue would reign triumphant. Then, one by one, they would backslide and the Devil would resume his sway.

"In fact, there are symptoms of backsliding even now. The L. R. has indulged in one squabble after another since Eldredge's death. There have been half a dozen schisms already. The very extremities to which those in power are going are helping us, for the country is rapidly tiring of it."

And that ended the argument—I in total defeat, as usual.

A month later, the *New Prometheus* was complete. It was nowhere near as glittering and as beautiful as the original, and bore many a trace of makeshift workmanship, but we were proud of it—proud and triumphant.

"I'm going to try again, men"—Harman's voice was husky, and his little frame vibrant with happiness—"and I may not make it, but for that I don't care." His eyes shone in anticipation. "I'll be shooting through the void at last, and the dream of mankind will come true. Out around the Moon and back; the first to see the other side. It's worth the chance."

"You won't have fuel enough to land on the Moon, boss, which is a pity," I said.

"That doesn't matter. There'll be other flights after this, better prepared and better equipped."

At that a pessimistic whisper ran through the little group surrounding him, to which he paid no attention.

"Good-by," he said. "I'll be seeing you." And with a cheerful grin he climbed into the ship.

Fifteen minutes later, the five of us sat about the living-room table, frowning, lost in thought, eyes gazing out the building at the spot where a burned section of soil marked the spot where a few minutes earlier the *New Prometheus* had lain.

Simonoff voiced the thought that was in the mind of each one of us: "Maybe it would be better for him *not* to come back. He won't be treated very well if he does, I think." And we all nodded in gloomy assent.

How foolish that prediction seems to me now from the hindsight of three decades.

The rest of the story is really not mine, for I did not see Harman again until a month after his eventful trip ended in a safe landing.

It was almost thirty-six hours after the take-off that a screaming projectile shot its way over Washington and buried itself in the mud just across the Potomac.

Investigators were at the scene of the landing within fifteen minutes, and in another fifteen minutes the police were there, for it was found that the projectile was a *rocketship*. They stared in involuntary awe at the tired, disheveled man who staggered out in near-collapse.

There was utter silence while he shook his fist at the gawking spectators and shouted: "Go ahead, hang me, fools. But I've reached the Moon, and you can't hang *that*. Get the FSRIB. Maybe they'll declare the flight illegal and, therefore, nonexistent." He laughed weakly and suddenly collapsed.

Someone shouted: "Take him to a hospital. He's sick." In stiff unconsciousness Harman was bundled into a police car and carried away, while the police formed a guard about the rocketship.

Government officials arrived and investigated the ship, read the log, inspected the drawings and photograph he had taken of

the Moon, and finally departed in silence. The crowd grew and the word spread that a man had reached the Moon.

Curiously enough, there was little resentment of the fact. Men were impressed and awed; the crowd whispered and cast inquisitive glances at the dim crescent of Luna, scarcely seen in the bright sunlight. Over all, an uneasy pall of silence, the silence of indecision, lay.

Then, at the hospital, Harman revealed his identity, and the fickle world went wild. Even Harman himself was stunned in surprise at the rapid change in the world's temper. It seemed almost incredible, and yet it was true. Secret discontent, combined with a heroic tale of man against overwhelming odds—the sort of tale that had stirred man's soul since the beginning of time—served to sweep everyone into an ever-swelling current of anti-Victorianism. And Eldredge was dead—no other could replace him.

I saw Harman at the hospital shortly after that. He was propped up and still half buried with papers, telegrams and letters. He grinned at me and nodded. "Well, Cliff," he whispered, "the pendulum swung back again."

## Notes

At the core of science fiction, intellectually, three themes have continued despite its recent dystopian mood. Indeed, to some extent at least, they have contributed to the split among sf enthusiasts. They are the beliefs that man and society can attain perfection, that science and technology will provide a major impetus in securing that perfection, and that the scientific spirit, with its emphasis upon free investigation and rationality, is essential to the achievement of those ends. For more than thirty years one of the major spokesmen for this point of view has been Isaac Asimov, surely one of the foundation stones of the contemporary genre. As recently as 1968, at the height of the controversy involving the "New Wave" and its attendant pessimism, he concluded his remarks at the Modern Language Association Forum on Science Fiction by saying, "Though none of us in the flesh may see

it, we may yet know in spirit that, perhaps, if other intelligences have not beaten us to the punch too far and too long ago—that, perhaps, man may yet spread through the galaxy and beyond.” He thus voiced the dream that he had helped to create: the dream of “galactic man.”

“Trends,” his third story, the first published in *Astounding*, retains its importance as an early statement of Asimov’s faith in science, as well as his insistence upon the individual’s “inalienable right to pursue knowledge.” Everything in the narrative contributes to his debate—perhaps lecture is more appropriate—as he answers all opposition to his view. That “revivalists” prove to be the chief antagonists simply draws upon historical fact—from Galileo to the Scopes Trial and beyond. Similarly, his use of the demagogue Eldredge, the Stonely-Carter legislation, and the Federal Scientific Research Investigation Bureau adapts to science fiction conditions present in the 1930s—from the demagogues like Huey Long, Father Coughlin, and Hitler, on the one hand, through the New Deal’s legislating in new areas of everyday life and the formation of congressional investigative committees to the attempts of such countries as Nazi Germany to control scientific research. In short, he has extrapolated from “trends” existing in the society of the time.

The characters are little more than voices for the different attitudes toward science, while the action itself is de-emphasized. The destruction of the *Prometheus* occurs off stage (“We had not yet reached the fringes of the crowd when there was a terrible blast behind me.”), while the building of the second ship is presented most summarily (“a long story of five years of discouragement and insecurity”). This is done deliberately by the first-person narrator whose presence at the events increases his authority, but whose manner lessens any sense of immediacy. When he refers to “the schoolboys of today” and “the hindsight of three decades” and remarks about looking back upon the hectic days of the 1970s, however, one realizes that he is writing a memoir for an audience so advanced and so imbued with the scientific spirit as to be more interested in the opposition to science than the moon flight. Asimov has most skillfully manipulated his point of view to focus upon the debate.

Thus, the success of the *New Prometheus* (again not dramatized on stage) serves as a kind of exemplum to the debate. Harman has defied all authority in order to carry out his ambition, but more important, the very act of flying to the moon—the combination of individual effort and scientific achievement—leaves the public “impressed and awed”; as soon as Harman’s identity is learned, the “fickle world went wild.” One cannot but recall the public acclaim showered on



Lindbergh after he flew the Atlantic—surely known by Asimov—which assured the future of aviation in the United States. The story, then, becomes a testimonial to the sense of wonder which, Asimov feels, science evokes in everyone.

For the reader of the 1970s, "Trends" contains many ironies. Science fiction, as many have observed, has been long on prophecy but short on accuracy of detail in its prophecies. Dating the first moon flight in the mid-1970s was optimistic in 1939. In speaking of legislative controls, he calls up one's memories of the government's attempts to keep the secrets of the A-bomb and hydrogen bomb, with the resultant McCarthyism. The sharpest irony of all may be accidental: "since 1945 [the pendulum's] been swinging against us." One wonders what made him choose World War II as a turning point; one wonders what he anticipated. His choice of the years 1973 to 1978 as the height of the oppression of science may seem amusing until one remembers that many would curtail the space program, if not discontinue it completely. He may have been more accurate in his prediction than he would wish to be. Be that as it may, "Trends" stands as one of the clearest statements of Asimov's faith in the scientific spirit—and, therefore, for him, in man himself.



## FAR CENTAURUS

A. E. van Vogt

(1944)

I wakened with a start, and thought: How was Renfrew taking it?

I must have moved physically, for blackness edged with pain closed over me. How long I lay in that agonized faint, I have no means of knowing. My next awareness was of the thrusting of the engines that drove the spaceship.

Slowly this time, consciousness returned. I lay very quiet, feeling the weight of my years of sleep, determined to follow the routine prescribed so long ago by Pelham.

I didn't want to faint again.

I lay there, and I thought: It was silly to have worried about Jim Renfrew. He wasn't due to come out of his state of suspended animation for another fifty years.

I began to watch the illuminated face of the clock in the ceiling. It has registered 23:12; now it was 23:22. The ten minutes Pelham had suggested for a time lapse between passivity and initial action was up.

Slowly, I pushed my hand toward the edge of the bed. *Click!* My fingers pressed the button that was there. There was a faint hum. The automatic massager began to fumble gently over my naked form.

First, it rubbed my arms; then it moved to my legs, and so on over my body. As it progressed, I could feel the fine slick of oil that oozed from it working into my dry skin.

A dozen times I could have screamed from the pain of life returning. But in an hour I was able to sit up and turn on the lights.

The small, sparsely furnished, familiar room couldn't hold my attention for more than an instant. I stood up.

The movement must have been too abrupt. I swayed, caught on to the metal column of the bed, and retched discolored stomach juices.

The nausea passed. But it required an effort of will for me to walk to the door, open it, and head along the narrow corridor that led to the control room.

I wasn't supposed to so much as pause there, but a spasm of absolutely dreadful fascination seized me; and I couldn't help it. I leaned over the control chair, and glanced at the chronometer.

It said: 53 years, 7 months, 2 weeks, 0 days, 0 hours and 27 minutes.

*Fifty-three years!* A little blindly, almost blankly, I thought: Back on Earth, the people we had known, the young men we'd gone to college with, that girl who had kissed me at the party given us the night we left—they were all dead. Or dying of old age.

I remembered the girl very vividly. She was pretty, vivacious, a complete stranger. She had laughed as she offered her red lips, and she had said "A kiss for the ugly one, too."

She'd be a grandmother now, or in her grave.

Tears came to my eyes. I brushed them away, and began to heat the can of concentrated liquid that was to be my first food. Slowly, my mind calmed.

Fifty-three years and seven and one half months, I thought drably. Nearly four years over my allotted time. I'd have to do some figuring before I took another dose of Eternity drug. Twenty grains had been calculated to preserve my flesh and my life for exactly fifty years.

The stuff was evidently more potent than Pelham had been able to estimate from his short period advance tests.

I sat tense, narrow-eyed, thinking about that. Abruptly, I grew conscious of what I was doing. Laughter spat from my lips. The sound split the silence like a series of pistol shots, startling me.

But it also relieved me. Was I sitting here actually being critical?

A miss of only four years was bull's-eye across that span of years.

Why, I was alive and still young. Time and space had been conquered. The universe belonged to man.

I ate my "soup," sipping each spoonful deliberately. I made the bowl last every second of thirty minutes. Then, greatly refreshed, I made my way back to the control room.

This time I paused for a long look through the plates. It took only a few moments to locate Sol, a very brightly glowing star in the approximate center of the rearview plate.

Alpha Centauri required longer to locate. But it shone finally, a glow point in a light sprinkled darkness.

I wasted no time trying to estimate their distances. They *looked* right. In fifty-four years we had covered approximately one tenth of the four and one third light years to the famous nearest star system.

Satisfied, I threaded my way back to the living quarters. Take them in a row, I thought. Pelham first.

As I opened the air-tight door of Pelham's room, a sickening odor of decayed flesh tingled in my nostrils. With a gasp I slammed the door, stood there in the narrow hallway, shuddering.

After a minute, there was still nothing but the reality.

Pelham was dead.

I cannot clearly remember what I did then. I ran; I know that. I flung open Renfrew's door, then Blake's. The clean, sweet smell of their rooms, the sight of their silent bodies on their beds brought back a measure of my sanity.

A great sadness came to me. Poor, brave Pelham. Inventor of the Eternity drug that had made the great plunge into interstellar space possible, he lay dead now from his own invention.

What was it he had said: "The chances are greatly against any of us dying. But there is what I am calling a death factor of about ten percent, a by-product of the first dose. If our bodies survive the initial shock, they will survive additional doses."

The death factor must be greater than ten percent. That extra four years the drug had kept me asleep—

Gloomily, I went to the storeroom, and procured my personal spacesuit and a tarpaulin. But even with their help, it was a horrible business. The drug had preserved the body to some extent, but pieces kept falling off as I lifted it.

At last, I carried the tarpaulin and its contents to the air lock, and shoved it into space.

I felt pressed now for time. These waking periods were to be brief affairs, in which what we called the "current" oxygen was to be used up, but the main reserves were not to be touched. Chemicals in each room slowly refreshed the "current" air over the years, readying it for the next to awaken.

In some curious defensive fashion, we had neglected to allow for an emergency like the death of one of our members; even as I climbed out of the spacesuit, I could feel the difference in the air I was breathing.

I went first to the radio. It had been calculated that half a light year was the limit of radio reception, and we were approaching that limit now.

Hurriedly, though carefully, I wrote my report out, then read it into a transcription record, and started sending. I set the record to repeat a hundred times.

In a little more than five months hence, headlines would be flaring on Earth.

I clamped my written report into the ship logbook, and added a note for Renfrew at the bottom. It was a brief tribute to Pelham. My praise was heartfelt, but there was another reason behind my note. They had been pals, Renfrew, the engineering genius who built the ship, and Pelham, the great chemist-doctor, whose Eternity drug had made it possible for men to take this fantastic journey into vastness.

It seemed to me that Renfrew, waking up into the great silence of the hurtling ship, would need my tribute to his friend and colleague. It was little enough for me to do, who loved them both.

The note written, I hastily examined the glowing engines, made notations of several instrument readings, and then counted out fifty-five grains of Eternity drug. That was as close as I could get to the amount I felt would be required for one hundred and fifty years.

For a long moment before sleep came, I thought of Renfrew and the terrible shock that was coming to him on top of all the natural reactions to his situations, that would strike deep into his peculiar, sensitive nature—

I stirred uneasily at the picture.

The worry was still in my mind when darkness came.

Almost instantly, I opened my eyes. I lay thinking: The drug! It hadn't worked.

The draggy feel of my body warned me of the truth. I lay very still watching the clock overhead. This time it was easier to follow the routine except that, once more, I could not refrain from examining the chronometer as I passed through the galley.

It read: 201 years, 1 month, 3 weeks, 5 days, 7 hours, 8 minutes.

I sipped my bowl of that super soup, then went eagerly to the big logbook.

It is utterly impossible for me to describe the thrill that coursed through me, as I saw the familiar handwriting of Blake, and then, as I turned back the pages, of Renfrew.

My excitement drained slowly, as I read what Renfrew had written. It was a report; nothing more: gravitometric readings, a careful calculation of the distance covered, a detailed report on the performance of the engines, and, finally, an estimate of our speed variations, based on the seven consistent factors.

It was a splendid mathematical job, a first-rate scientific analysis. But that was all there was. No mention of Pelham, not a word of comment on what I had written or on what had happened.

Renfrew had wakened; and, if his report was any criterion, he might as well have been a robot.

I knew better than that.

So—I saw as I began to read Blake's report—did Blake.

Bill:

TEAR THIS SHEET OUT WHEN YOU'VE READ IT!

Well, the worst has happened. We couldn't have asked fate to give us an unkindlier kick in the pants. I hate to think of Pelham being dead. What a man he was, what a friend! But we all knew the risk we were taking, he more than any of us. So all we can say is, 'Sleep well, good friend. We'll never forget you.'

But Renfrew's case is now serious. After all, we were worried, wondering how he'd take his first awakening, let alone a bang between the eyes like Pelham's death. And I think that the first anxiety was justified.

As you and I have always known, Renfrew was one of Earth's fair-haired boys. Just imagine any one human being born with his combination of looks, money and intelligence. His great fault was that he never let the future trouble him. With that dazzling personality of his, and the crew of worshiping women and yes-men around him, he didn't have much time for anything but the present.

Realities always struck him like a thunderbolt. He could leave those three ex-wives of his—and they weren't so ex, if you ask me—without grasping that it was forever.

That good-by party was enough to put anyone into a sort of mental haze when it came to realities. To wake up a hundred years later, and realize that those he loved had withered, died and been eaten by worms—well-l-l!

(I deliberately put it as baldly as that, because the human mind thinks of awfully strange angles, no matter how it censures speech.)

I personally counted on Pelham acting as a sort of psychological support to Renfrew; and we both know that Pelham recognized the extent of his influence over Renfrew. That influence must be replaced. Try to think of something, Bill, while you're charging around doing the routine work. We've got to live with that guy after we all wake up at the end of five hundred years.

Tear out this sheet. What follows is routine.

Ned



I burned the letter in the incinerator, examined the two sleeping bodies—how deathly quiet they lay!—and then returned to the control room.

In the plate, the sun was a very bright star, a jewel set in black velvet, a gorgeous, shining brilliant.

Alpha Centauri was brighter. It was a radiant light in that panoply of black and glitter. It was still impossible to make out the separate suns of Alpha A, B, C, and Proxima, but their combined light brought a sense of awe and majesty.

Excitement blazed inside me; and consciousness came of the glory of this trip we were making, the first men to head for far Centaurus, the first men to dare aspire to the stars.

Even the thought of Earth failed to dim that surging tide of wonder; the thought that seven, possibly eight generations, had been born since our departure; the thought that the girl who had given me the sweet remembrance of her red lips, was now known to her descendants as their great-great-great-grandmother—if she were remembered at all.

The immense time involved, the whole idea, was too meaningless for emotion.

I did my work, took my third dose of the drug, and went to bed. The sleep found me still without a plan about Renfrew.

When I woke up, alarm bells were ringing.

I lay still. There was nothing else to do. If I had moved, consciousness would have slid from me. Though it was mental torture even to think it, I realized that, no matter what the danger, the quickest way was to follow my routine to the second and in every detail.

Somehow I did it. The bells clanged and *brrred*, but I lay there until it was time to get up. The clamor was hideous, as I passed through the control room. But I *passed* through and sat for half an hour sipping my soup.

The conviction came to me that if that sound continued much longer, Blake and Renfrew would surely waken from their sleep.

At last, I felt free to cope with the emergency. Breathing hard,

I eased myself into the control chair, cut off the mind-wrecking alarms, and switched on the plates.

A fire glowed at me from the rear-view plate. It was a colossal *white* fire, longer than it was wide, and filling nearly a quarter of the whole sky. The hideous thought came to me that we must be within a few million miles of some monstrous sun that had recently roared into this part of space.

Frantically, I manipulated the distance estimators—and then for a moment stared in blank disbelief at the answers that clicked metallically onto the product plate.

Seven miles! *Only* seven miles! Curious is the human mind. A moment before, when I had thought of it as an abnormally shaped sun, it hadn't resembled anything but an incandescent mass. Abruptly, now, I saw that it had a solid outline, an unmistakable material shape.

Stunned, I leaped to my feet because—

It was a spaceship! An enormous, mile-long ship. Rather—I sank back into my seat, subdued by the catastrophe I was witnessing, and consciously adjusting my mind—the flaming hell of what had been a spaceship. Nothing that had been alive could possibly still be conscious in that horror of ravenous fire. The only possibility was that the crew had succeeded in launching lifeboats.

Like a madman, I searched the heavens for a light, a glint of metal that would show the presence of survivors.

There was nothing but the night and the stars and the hell of burning ship.

After a long time, I noticed that it was farther away, and seemed to be receding. Whatever drive forces had matched its velocity to ours must be yielding to the fury of the energies that were consuming the ship.

I began to take pictures, and I felt justified in turning on the oxygen reserves. As it withdrew into distance, the miniature nova that had been a torpedo-shaped space liner began to change color, to lose its white intensity. It became a red fire silhouetted against darkness. My last glimpse showed it as a long, dull glow that looked like nothing else than a cherry-colored nebula seen

edge on, like a blaze reflecting from the night beyond a far horizon.

I had already, in between observations, done everything else required of me; and now, I reconnected the alarm system and, very reluctantly, my mind seething with speculation, returned to bed.

As I lay waiting for my final dosage of the trip to take effect, I thought: the great star system of Alpha Centauri must have inhabited planets. If my calculations were correct, we were only one point six light years from the main Alpha group of suns, slightly nearer than that to red Proxima.

Here was proof that the universe had at least one other supremely intelligent race. Wonders beyond our wildest expectation were in store for us. Thrill on thrill of anticipation raced through me.

It was only at the last instant, as sleep was already grasping at my brain, that the realization struck that I had completely forgotten about the problem of Renfrew.

I felt no alarm. Surely, even Renfrew would come alive in that great fashion of his when confronted by a complex alien civilization.

Our troubles were over.

Excitement must have bridged that final one hundred fifty years of time. Because, when I awakened, I thought:

"We're here! It's over, the long night, the incredible journey. We'll all be waking, seeing each other, as well as the civilization out there. Seeing, too, the great Centauri suns."

The strange thing, it struck me as I lay there exulting, was that the time seemed long. And yet . . . yet I had been awake only three times, and only once for the equivalent of a full day.

In the truest sense of meaning, I had seen Blake and Renfrew—and Pelham—no more than a day and a half ago. I had had only thirty-six hours of consciousness since a pair of soft lips had set themselves against mine, and clung in the sweetest kiss of my life.

Then why this feeling that millenniums had ticked by, second

on slow second? Why this eerie, empty awareness of a journey through fathomless, unending night?

Was the human mind so easily fooled?

It seemed to me, finally, that the answer was that I had been alive for those five hundred years, all my cells and my organs had existed, and it was not even impossible that some part of my brain had been horrendously aware throughout the entire unthinkable period.

And there was, of course, the additional psychological fact that I knew now that five hundred years had gone by, and that—

I saw with a mental start, that my ten minutes were up. Cautiously, I turned on the massager.

The gentle, padded hands had been working on me for about fifteen minutes when my door opened; the light clicked on, and there stood Blake.

The too-sharp movement of turning my head to look at him made me dizzy. I closed my eyes, and heard him walk across the room toward me.

After a minute, I was able to look at him again without seeing blurs. I saw then that he was carrying a bowl of the soup. He stood staring down at me with a strangely grim expression on his face.

At last, his long, thin countenance relaxed into a wan grin.

“Lo, Bill,” he said. “Sssshh!” he hissed immediately. “Now, don’t try to speak. I’m going to start feeding you this soup while you’re still lying down. The sooner you’re up, the better I’ll like it.”

He was grim again, as he finished almost as if it were an afterthought: “I’ve been up for two weeks.”

He sat down on the edge of the bed, and ladled out a spoonful of soup. There was silence, then, except for the rustling sound of the massager. Slowly, the strength flowed through my body; and with each passing second, I became more aware of the grimness of Blake.

“What about Renfrew?” I managed finally, hoarsely. “He awake?”

Blake hesitated, then nodded. His expression darkened with frown; he said simply:

"He's mad, Bill, stark, staring mad. I had to tie him up. I've got him now in his room. He's quieter now, but at the beginning he was a gibbering maniac."

"Are you crazy?" I whispered at last. "Renfrew was never so sensitive as that. Depressed and sick, yes; but the mere passage of time, abrupt awareness that all his friends are dead, couldn't make him insane."

Blake was shaking his head. "It isn't only that. Bill—"

He paused, then: "Bill, I want you to prepare your mind for the greatest shock it's ever had."

I stared up at him with an empty feeling inside me. "What do you mean?"

He went on grimacing: "I know you'll be able to take it. So don't get scared. You and I, Bill, are just a couple of lugs. We're along because we went to U with Renfrew and Pelham. Basically, it wouldn't matter to insensitives like us whether we landed in 1,000,000 B.C. or A.D. We'd just look around and say: 'Fancy seeing you here, mug!' or 'Who was that pterodactyl I saw you with last night? That wasn't no pterodactyl; that was Unthorsten's bulbous-brained wife.'"

I whispered, "Get to the point. What's up?"

Blake rose to his feet. "Bill, after I'd read your reports about, and seen the photographs of, that burning ship, I got an idea. The Alpha suns were pretty close two weeks ago, only about six months away at our average speed of five hundred miles a second. I thought to myself: 'I'll see if I can tune in some of their radio stations.'"

"Well," he smiled wryly, "I got hundreds in a few minutes. They came in all over the seven wave dials, with bell-like clarity."

He paused; he stared down at me, and his smile was a sickly thing. "Bill," he groaned, "we're the prize fools in creation. When I told Renfrew the truth, he folded up like ice melting into water."

Once more, he paused; the silence was too much for my straining nerves.

"For Heaven's sake, man—" I began. And stopped. And lay

there, very still. Just like that the lightning of understanding flashed on me. My blood seemed to thunder through my veins. At last, weakly, I said: "You mean—"

Blake nodded. "Yeah," he said. "That's the way it is. And they've already spotted us with their spy rays and energy screens. A ship's coming out to meet us.

"I only hope," he finished gloomily, "they can do something for Jim."

I was sitting in the control chair an hour later when I saw the glint in the darkness. There was a flash of bright silver, that exploded into size. The next instant, an enormous spaceship had matched our velocity less than a mile away.

Blake and I looked at each other. "Did they say," I said shakily, "that that ship left its hangar ten minutes ago?"

Blake nodded. "They can make the trip from Earth to Centauri in three hours," he said.

I hadn't heard that before. Something happened inside my brain. "What!" I shouted. "Why, it's taken us five hund—"

I stopped; I sat there. "Three hours!" I whispered. "How *could* we have forgotten human progress?"

In the silence that fell then, we watched a dark hole open in the clifflike wall that faced us. Into this cavern, I directed our ship.

The rear-view plate showed that the cave entrance was closing. Ahead of us lights flashed on, and focused on a door. As I eased our craft to the metal floor, a face flickered onto our radio plate.

"Cassellahat!" Blake whispered in my ear. "The only chap who's talked direct to me so far."

It was a distinguished, a scholarly-looking head and face that peered at us. Cassellahat smiled, and said:

"You may leave your ship, and go through the door you see."

I had a sense of empty spaces around us, as we climbed gingerly out into the vast receptor chamber. Interplanetary spaceship hangars were like that, I reminded myself. Only this one had an alien quality that—

"Nerves!" I thought sharply.

But I could see that Blake felt it, too. A silent duo, we filed through the doorway into a hallway, that opened into a very large, luxurious room.

It was such a room as a king or a movie actress on set might have walked into without blinking. It was all hung with gorgeous tapestries—that is, for a moment, I thought they were tapestries; then I saw they weren't. They were—I couldn't decide.

I had seen expensive furniture in some of the apartments Renfrew maintained. But these settees, chairs, and tables glittered at us, as if they were made of a matching design of differently colored fires. No, that was wrong; they didn't glitter at all. They—

Once more I couldn't decide.

I had no time for more detailed examination. For a man arrayed very much as we were, was rising from one of the chairs. I recognized Cassellahat.

He came forward, smiling. Then he slowed, his nose wrinkling. A moment later, he hastily shook our hands, then swiftly retreated to a chair ten feet away, and sat down rather primly.

It was an astoundingly ungracious performance. But I was glad that he had drawn back that way. Because, as he shook my hand so briefly, I had caught a faint whiff of perfume from him. It was a vaguely unpleasant odor; and, besides—a man using perfume in quantities!

I shuddered. What kind of foppish nonsense had the human race gone in for?

He was motioning us to sit down. I did so, wondering: Was this our reception? The erstwhile radio operator began:

"About your friend, I must caution you. He is a schizoid type, and our psychologists will be able to effect a temporary recovery only for the moment. A permanent cure will require a longer period, and your fullest co-operation. Fall in readily with all Mr. Renfrew's plans, unless, of course, he takes a dangerous turn.

"But now"—he squirted us a smile—"permit me to welcome you to the four planets of Centauri. It is a great moment for me, personally. From early childhood, I have been trained for the sole

purpose of being your mentor and guide; and naturally I am overjoyed that the time has come when my exhaustive studies of the middle-period American language and customs can be put to the practical use for which they were intended."

He didn't look overjoyed. He was wrinkling his nose in that funny way I had already noticed, and there was a generally pained expression on his face. But it was his words that shocked me.

"What do you mean," I asked, "studies in American? Don't people speak the universal language any more?"

"Of course"—he smiled—"but the language has developed to a point where—I might as well be frank—you would have difficulty understanding such a simple word as 'yeih.'"

"Yeih?" Blake echoed.

"Meaning 'yes.'"

"Oh!"

We sat silent. Blake chewing his lower lip. It was Blake who finally said:

"What kind of places are the Centauri planets? You said something on the radio about the population centers having reverted to the city structure again."

"I shall be happy," said Cassellahat, "to show you as many of our great cities as you care to see. You are our guests, and several million credits have been placed to your separate accounts for you to use as you see fit."

"Geel" said Blake.

"I must, however," Cassellahat went on, "give you a warning. It is important that you do not disillusion our peoples about yourselves. Therefore, you must never wander around the streets, or mingle with the crowds in any way. Always, your contact should be via newsreels, radio, or from the *inside* of a closed machine. If you have any plan to marry, you must now finally give up the idea."

"I don't get it!" Blake said wonderingly; and he spoke for us both.

Cassellahat finished firmly: "It is important that no one be-



comes aware that you have an offensive physical odor. It might damage your financial prospects considerably.

"And now"—he stood up—"for the time being, I shall leave you. I hope you don't mind if I wear a mask in the future in your presence. I wish you well, gentlemen, and—"

He paused, glanced past us, said: "Ah, here is your friend."

I whirled, and I could see Blake twisting, staring—

"Hi, there, fellows," Renfrew said cheerfully from the door, then wryly: "Have we ever been a bunch of suckers?"

I felt choked. I raced up to him, caught his hand, hugged him. Blake was trying to do the same.

When we finally released Renfrew, and looked around, Cassellahat was gone.

Which was just as well. I had been wanting to punch him in the nose for his final remarks.

"Well, here goes!" Renfrew said.

He looked at Blake and me, grinned, rubbed his hands together gleefully, and added:

"For a week I've been watching, thinking up questions to ask this cluck and—"

He faced Cassellahat. "What," he began, "makes the speed of light constant?"

Cassellahat did not even blink. "Velocity equals the cube of the cube root of  $gd$ ," he said, " $d$  being the depth of the space time continuum,  $g$  the total toleration or gravity, as you would say, of all the matter in that continuum."

"How are planets formed?"

"A sun must balance itself in the space that it is in. It throws out matter as a sea vessel does anchors. That's a very rough description. I could give it to you in mathematical formula, but I'd have to write it down. After all, I'm not a scientist. These are merely facts that I've known from childhood, or so it seems."

"Just a minute," said Renfrew, puzzled. "A sun throws this matter out without any pressure other than its—desire—to balance itself?"

Cassellahat stared at him. "Of course not. The reason, the pressure involved, is very potent, I assure you. Without such a balance, the sun would fall out of this space. Only a few bachelor suns have learned how to maintain stability without planets."

"A few what?" echoed Renfrew.

I could see that he had been jarred into forgetting the questions he had been intending to ask one by swift one. Cassellahat's words cut across my thought; he said:

"A bachelor sun is a very old, cooled class-M star. The hottest one known has a temperature of one hundred ninety degrees F., the coldest forty-eight. Literally, a bachelor is a rogue, crotchety with age. Its main feature is that it permits no matter, no planets, not even gases in its vicinity."

Renfrew sat silent, frowning, thoughtful. I seized the opportunity to carry on a train of idea.

"This business," I said, "of knowing all this stuff without being a scientist, interests me. For instance, back home every kid understood the atomic-rocket principle practically from the day he was born. Boys of eight and ten rode around in specially made toys, took them apart and put them together again. They *thought* rocket-atomic, and any new development in the field was just pie for them to absorb.

"Now, here's what I'd like to know: what is the parallel here to that particular angle?"

"The adeledicnander force," said Cassellahat. "I've already tried to explain it to Mr. Renfrew, but his mind seems to balk at some of the most simple aspects."

Renfrew roused himself, grimaced. "He's been trying to tell me that electrons think; and I won't swallow it."

Cassellahat shook his head. "Not think; they don't think. But they have a psychology."

"Electronic psychology!" I said.

"Simply adeledicnander," Cassellahat replied. "Any child—"

Renfrew groaned: "I know. Any child of six could tell me."

He turned to us. "That's why I lined up a lot of questions. I figured that if we got a good intermediate grounding, we might

be able to slip into this adeledicnander stuff the way their kids do."

He faced Cassellahat. "Next question," he said. "What—"

Cassellahat had been looking at his watch. "I'm afraid, Mr. Renfrew," he interrupted, "that if you and I are going to be on the ferry to the Pelham planet, we'd better leave now. You can ask your questions on the way."

"What's all this?" I chimed in.

Renfrew explained: "He's taking me to the great engineering laboratories in the European mountains of Pelham. Want to come along?"

"Not me," I said.

Blake shrugged. "I don't fancy getting into one of those suits Cassellahat has provided for us, designed to keep our odor in, but not theirs out."

He finished: "Bill and I will stay here and play poker for some of that five million credits worth of dough we've got in the State bank."

Cassellahat turned at the door; there was a distinct frown on the flesh mask he wore. "You treat our government gift very lightly."

"Yeih!" said Blake.

"So we stink," said Blake.

It was nine days since Cassellahat had taken Renfrew to the planet Pelham; and our only contact had been a radio telephone call from Renfrew on the third day, telling us not to worry.

Blake was standing at the window of our penthouse apartment in the city of Newmerica; and I was on my back on a couch, in my mind a mixture of thoughts involving Renfrew's potential insanity and all the things I had heard and seen about the history of the past five hundred years.

I roused myself. "Quit it," I said. "We're faced with a change in the metabolism of the human body, probably due to the many different foods from remote stars that they eat. They must be able to smell better, too, because just being near us is agony to

Cassellahat, whereas we only notice an unpleasantness from him. It's a case of three of us against billions of them. Frankly, I don't see an early victory over the problem, so let's just take it quietly."

There was no answer; so I returned to my reverie. My first radio message to Earth had been picked up; and so, when the interstellar drive was invented in 2320 A.D., less than one hundred forty years after our departure, it was realized what would eventually happen.

In our honor, the four habitable planets of the Alpha A and B suns were called Renfrew, Pelham, Blake, and Endicott. Since 2320, the populations of the four planets had become so dense that a total of nineteen billion people now dwelt on their narrowing land spaces. This in spite of migrations to the planets of more distant stars.

The space liner I had seen burning in 2511 A.D. was the only ship ever lost on the Earth-Centauri lane. Traveling at full speed, its screens must have reacted against our spaceship. All the automatics would instantly have flashed on; and, as those defenses were not able at that time to stop a ship that had gone Minus Infinity, every recoil engine aboard had probably blown up.

Such a thing could not happen again. So enormous had been the progress in the adeledicnander field of power, that the greatest liners could stop dead in the full fury of midflight.

We had been told not to feel any sense of blame for that one disaster, as many of the most important advances in adeledicnander electronic psychology had been made as the result of the theoretical analyses of that great catastrophe.

I grew aware that Blake had flung himself disgustedly into a nearby chair.

"Boy, oh, boy," he said, "this is going to be some life for us. We can all anticipate about fifty more years of being pariahs in a civilization where we can't even understand how the simplest machines work."

I stirred uneasily. I had had similar thoughts. But I said nothing. Blake went on:

"I must admit, after I first discovered the Centauri planets had

been colonized, I had pictures of myself bowling over some dame, and marrying her."

Involuntarily my mind leaped to the memory of a pair of lips lifting up to mine. I shook myself. I said:

"I wonder how Renfrew is taking all this. He—"

A familiar voice from the door cut off my words. "Renfrew," it said, "is taking things beautifully now that the first shock has yielded to resignation, and resignation to purpose."

We had turned to face him by the time he finished. Renfrew walked slowly toward us, grinning. Watching him, I felt uncertain as to just how to take his built-up sanity.

He was at his best. His dark, wavy hair was perfectly combed. His startlingly blue eyes made his whole face come alive. He was a natural physical wonder; and at his normal he had all the shine and swagger of an actor in a carefully tailored picture.

He wore that shine and swagger now. He said:

"I've bought a spaceship, fellows. Took all my money and part of yours, too. But I knew you'd back me up. Am I right?"

"Why, sure," Blake and I echoed.

Blake went on alone: "What's the idea."

"I get it," I chimed in. "We'll cruise all over the universe, live our life span exploring new worlds. Jim, you've got something there. Blake and I were just going to enter a suicide pact."

Renfrew was smiling. "We'll cruise for a while anyway."

Two days later, Cassellahat having offered no objection and no advice about Renfrew, we were in space.

It was a curious three months that followed. For a while I felt a sense of awe at the vastness of the cosmos. Silent planets swung into our viewing plates, and faded into remoteness behind us, leaving nostalgic memory of uninhabited, wind-lashed forests and plains, deserted, swollen seas, and nameless suns.

The sight and the remembrance brought loneliness like an ache, and the knowledge, the slow knowledge, that this journeying was not lifting the weight of strangeness that had settled upon us ever since our arrival at Alpha Centauri.

There was nothing here for our souls to feed on, nothing that would satisfactorily fill one year of our life, let alone fifty.

I watched the realization grow on Blake, and I waited for a sign from Renfrew that he felt it, too. The sign didn't come. That of itself worried me; then I grew aware of something else. Renfrew was watching us. Watching us with a hint in his manner of secret knowledge, a suggestion of secret purpose.

My alarm grew; and Renfrew's perpetual cheerfulness didn't help any. I was lying on my bunk at the end of the third month, thinking uneasily about the whole unsatisfactory situation, when my door opened and Renfrew came in.

He carried a paralyzer gun and a rope. He pointed the gun at me, and said:

"Sorry, Bill. Cassellahat told me to take no chances, so just lie quiet while I tie you up."

"Blake!" I bellowed.

Renfrew shook his head gently. "No use," he said. "I was in his room first."

The gun was steady in his fingers, his blue eyes were steely. All I could do was tense my muscles against the ropes as he tied me, and trust to the fact that I was twice as strong, at least, as he was.

I thought in dismay: Surely I could prevent him from tying me too tightly.

He stepped back finally, said again, "Sorry, Bill." He added: "I hate to tell you this, but both of you went off the deep end mentally when we arrived at Centauri; and this is the cure prescribed by the psychologist whom Cassellahat consulted. You're supposed to get a shock as big as the one that knocked you for a loop."

The first time I'd paid no attention to his mention of Cassellahat's name. Now my mind flared with understanding.

Incredibly, Renfrew had been told that Blake and I were mad. All these months he had been held steady by a sense of responsibility toward us. It was a beautiful psychological scheme. The only thing was: *what* shock was going to be administered?

Renfrew's voice cut off my thought. He said:

"It won't be long now. We're already entering the field of the bachelor sun."

"Bachelor sun!" I yelled.

He made no reply. The instant the door closed behind him, I began to work on my bonds; all the time I was thinking:

What was it Cassellahat had said? Bachelor suns maintained themselves in this space by a precarious balancing.

In *this* space! The sweat poured down my face, as I pictured ourselves being precipitated into another plane of the space-time continuum—I could feel the ship falling when I finally worked my hands free of the rope.

I hadn't been tied long enough for the cords to interfere with my circulation. I headed for Blake's room. In two minutes we were on our way to the control cabin.

Renfrew didn't see us till we had him. Blake grabbed his gun; I hauled him out of the control chair with one mighty heave, and dumped him onto the floor.

He lay there, unresisting, grinning up at us. "Too late," he taunted. "We're approaching the first point of intolerance, and there's nothing you can do except prepare for the shock."

I scarcely heard him. I plumped myself into the chair, and glared into the viewing plates. Nothing showed. That stumped me for a second. Then I saw the recorder instruments. They were trembling furiously, registering a body of INFINITE size.

For a long moment I stared crazily at those incredible figures. Then I plunged the decelerator far over. Before that pressure of full-driven adeledicnander, the machine grew rigid; I had a sudden fantastic picture of two irresistible forces in full collision. Gasping, I jerked the power out of gear.

We were still falling.

"An orbit," Blake was saying. "Get us into an orbit."

With shaking fingers, I pounded one out on the keyboard, basing my figures on a sun of Sol-ish size, gravity, and mass.

The bachelor wouldn't let us have it.

I tried another orbit, and a third, and more—finally one that would have given us an orbit around mighty Antares itself. But the deadly reality remained. The ship plunged on, down and down.

And there was nothing visible on the plates, not a real shadow of substance. It seemed to me once that I could make out a vague blur of greater darkness against the black reaches of space. But the stars were few in every direction and it was impossible to be sure.

Finally, in despair, I whirled out of the seat, and knelt beside Renfrew, who was still making no effort to get up.

"Listen, Jim," I pleaded, "what did you do this for? What's going to happen?"

He was smiling easily. "Think," he said, "of an old, crusty, human bachelor. He maintains a relationship with his fellows, but the association is as remote as that which exists between a bachelor sun and the stars in the galaxy of which it is a part."

He added: "Any second now we'll strike the first period of intolerance. It works in jumps like quantum, each period being four hundred ninety-eight years, seven months and eight days plus a few hours."

It sounded like gibberish. "But what's going to happen?" I urged. "For Heaven's sake, man!"

He gazed up at me blandly; and, looking up at him, I had the sudden, wondering realization that he was sane, the old, completely rational Jim Renfrew, made better somehow, stronger. He said quietly:

"Why, it'll just knock us out of its toleration area; and in doing so will put us back—"

JERK!

The lurch was immensely violent. With a bang, I struck the floor, skidded, and then a hand—Renfrew's—caught me. And it was all over.

I stood up, conscious that we were no longer falling. I looked at the instrument board. All the lights were dim, untroubled,



the needles firmly at zero. I turned and stared at Renfrew, and at Blake, who was ruefully picking himself from the floor.

Renfrew said persuasively: "Let me at the control board, Bill. I want to set our course for Earth."

For a long minute, I gazed at him; and then, slowly, I stepped aside. I stood by as he set the controls and pulled the accelerator over. Renfrew looked up.

"We'll reach Earth in about eight hours," he said, "and it'll be about a year and a half after we left five hundred years ago."

Something began to tug at the roof of my cranium. It took several seconds before I decided that it was probably my brain jumping with the tremendous understanding that suddenly flowed in upon me.

The bachelor sun, I thought dazedly. In easing us out of its field of toleration, it had simply precipitated us into a period of time beyond its field. Renfrew had said . . . had said that it worked in jumps of . . . four hundred ninety-eight years and some seven months and—

But what about the ship? Wouldn't twenty-seventh century adeledicnander brought to the twenty-second century, before it was invented, change the course of history? I mumbled the question.

Renfrew shook his head. "Do *we* understand it? Do we even dare monkey with the raw power inside those engines? I'll say not. As for the ship, we'll keep it for our own private use."

"B-but—" I began.

He cut me off. "Look, Bill," he said, "here's the situation: that girl who kissed you—don't think I didn't see you falling like a ton of bricks—is going to be sitting beside you fifty years from now, when *your* voice from space reports to Earth that you had wakened on your first lap of the first trip to Centaurus."

That's exactly what happened.

## Notes

"Time and space had been conquered. The universe belonged to man." Such is A. E. van Vogt's bald assertion of theme as he celebrates man's initial flight to the stars. If one compares Jack Williamson's "The Metal Man" and van Vogt's "Far Centaurus," he finds that the "romantic mystery" has largely disappeared, probably in large part because the scene has been shifted from the remote, primitive places of Earth. Other conventions do continue, as in the substitution of Blake's entry in the logbook for the traditional "manuscript." Through the use of the familiar first-person narrator and scenic structure, van Vogt focuses the reader's attention and sympathy upon Endicott. He is very like Williamson's Kelvin. There is one essential difference; in the interest of characterization—of emphasizing the spaceman's ties with humanity, Endicott is permitted to remember the-girl-he-left-behind, who had a kiss even "for the ugly one, too." (Initially, at least, his memory of her mortality helps the reader to sense the passage of time.) Otherwise Kelvin and Endicott are alike: means to an end. For despite the careful detailing of his protagonist's observations and feelings, it is not the quality of human experience during the flight which fascinates van Vogt so much as it is the flight—the action—and its consequences, *for their own sake*.

The flight itself and the "wonders . . . [the] thrill on thrill of anticipation" of being "confronted by a complex alien civilization": van Vogt's double concern explains why the scene in which Endicott watches the mile-long starship burn is the most vividly realized in the story. Its effectiveness is essential, for Endicott's certainty that it heralds a meeting with "at least one other supremely intelligent race" in the Alpha Centauri system leads directly to the climactic irony which sets "Far Centaurus" apart from so many similar stories.

Assuming a continuity in society unbothered by "trends," van Vogt did not forget that in five hundred years "human progress" would inevitably develop an "interstellar drive" far surpassing the pioneer effort, so much so as to render it obsolete before its mission is accomplished. So intrigued does he seem with that idea and so carefully does he prepare to spring it that he may well have overlooked that it mars the unity of the story and contradicts most of what he has previously built up.

The discovery that the four planets of Alpha Centauri are prosper-

ous worlds and that flight between them and Earth takes but three hours affords a delightful climax to the initial voyage. One shares van Vogt's chuckle. But then he rereads to trace the thread of van Vogt's satire. The humor and potentiality for satire in the scenes with Cassellahat are obvious, as when he warns the Earthmen not to mingle with crowds because their offensive odor "might damage [their] financial prospects considerably." Yet prior to these incidents there is no humor; the focus has been upon Endicott and the progress of the flight. The resultant difficulty is well illustrated by van Vogt's resorting to a previously unseen character, Blake, to reveal the truth to the narrator who has had the stage to himself. And what does the discovery mean to the crew of the first ship? "Bill, we're the prize fools in creation."

After having focused solely and sympathetically upon Endicott and the crew, van Vogt cannot leave them in such a dilemma; he must, so to speak, begin again. The potential of the scenes with Cassellahat vanishes before the need to introduce new expository materials. Again the difficulty is illustrated by van Vogt's giving the center of the stage to the previously invisible Renfrew. That he returns the crew to Earth via a convenient "space-warp" measures his reliance upon action to solve his problems; that Endicott returns to the-girl-he-left-behind scarcely provides a satisfactory, mature resolution. Similarly, his use of such devices as the "Eternity Drug," "bachelor suns," and "adele-dicnander power" raises the question of the role of scientific fact and theory in science fiction by the mid-1940s, although here, too, in the scene in which Renfrew questions Cassellahat, there is humor and the suggestion of satire. One gains the impression that van Vogt was trapped by an idea he wished to exploit. In a sense "Far Centaurus" is a transitional story. In its lack of unity it looks back to the tradition emphasizing action, while in its confusion of tone it anticipates the changing mood of science fiction at mid-century.



## IF I FORGET THEE, O EARTH

Arthur C. Clarke

(1951)

When Marvin was ten years old, his father took him through the long, echoing corridors that led up through Administration and Power, until at last they came to the uppermost levels of all and were among the swiftly growing vegetation of the Farmlands. Marvin liked it here: it was fun watching the great, slender plants creeping with almost visible eagerness toward the sunlight as it filtered down through the plastic domes to meet them. The smell of life was everywhere, awakening inexpressible longings in his heart: no longer was he breathing the dry, cool air of the residential levels, purged of all smells but the faint tang of ozone. He wished he could stay here for a little while, but Father would not let him. They went onward until they had reached the entrance to the Observatory, which he had never visited: but they did not stop, and Marvin knew with a sense of rising excitement that there could be only one goal left. For the first time in his life, he was going Outside.

There were a dozen of the surface vehicles, with their wide balloon tires and pressurized cabins, in the great servicing chamber. His father must have been expected, for they were led at once to the little scout car waiting by the huge circular door of the airlock. Tense with expectancy, Marvin settled himself down in the cramped cabin while his father started the motor and checked the controls. The inner door of the lock slid open and then closed behind them: he heard the roar of the great air pumps fade slowly away as the pressure dropped to zero. Then the "Vac-

uum" sign flashed on, the outer door parted, and before Marvin lay the land which he had never yet entered.

He had seen it in photographs, of course: he had watched it imaged on television screens a hundred times. But now it was lying all around him, burning beneath the fierce sun that crawled so slowly across the jet-black sky. He stared into the west, away from the blinding splendor of the sun—and there were the stars, as he had been told but had never quite believed. He gazed at them for a long time, marveling that anything could be so bright and yet so tiny. They were intense unscintillating points, and suddenly he remembered a rhyme he had once read in one of his father's books:

*Twinkle, twinkle, little star,  
How I wonder what you are.*

Well, *he* knew what the stars were. Whoever asked that question must have been very stupid. And what did they mean by "twinkle"? You could see at a glance that all the stars shone with the same steady, unwavering light. He abandoned the puzzle and turned his attention to the landscape around him.

They were racing across a level plain at almost a hundred miles an hour, the great balloon tires sending up little spurts of dust behind them. There was no sign of the Colony: in the few minutes while he had been gazing at the stars, its domes and radio towers had fallen below the horizon. Yet there were other indications of man's presence, for about a mile ahead Marvin could see the curiously shaped structures clustering round the head of a mine. Now and then a puff of vapor would emerge from a squat smokestack and would instantly disperse.

They were past the mine in a moment: Father was driving with a reckless and exhilarating skill as if—it was a strange thought to come into a child's mind—he were trying to escape from something. In a few minutes they had reached the edge of the plateau on which the Colony had been built. The ground fell sharply away beneath them in a dizzying slope whose lower

stretches were lost in shadow. Ahead, as far as the eye could reach, was a jumbled wasteland of craters, mountain ranges, and ravines. The crests of the mountains, catching the low sun, burned like islands of fire in a sea of darkness: and above them the stars still shone as steadfastly as ever.

There could be no way forward—yet there was. Marvin clenched his fists as the car edged over the slope and started the long descent. Then he saw the barely visible track leading down the mountainside, and relaxed a little. Other men, it seemed, had gone this way before.

Night fell with a shocking abruptness as they crossed the shadow line and the sun dropped below the crest of the plateau. The twin searchlights sprang into life, casting blue-white bands on the rocks ahead, so that there was scarcely need to check their speed. For hours they drove through valleys and past the foot of mountains whose peaks seemed to comb the stars, and sometimes they emerged for a moment into the sunlight as they climbed over higher ground.

And now on the right was a wrinkled, dusty plain, and on the left, its ramparts and terraces rising mile after mile into the sky, was a wall of mountains that marched into the distance until its peaks sank from sight below the rim of the world. There was no sign that men had ever explored this land, but once they passed the skeleton of a crashed rocket, and beside it a stone cairn surmounted by a metal cross.

It seemed to Marvin that the mountains stretched on forever: but at last, many hours later, the range ended in a towering, precipitous headland that rose steeply from a cluster of little hills. They drove down into a shallow valley that curved in a great arc toward the far side of the mountains: and as they did so, Marvin slowly realized that something very strange was happening in the land ahead.

The sun was now low behind the hills on the right: the valley before them should be in total darkness. Yet it was awash with a cold white radiance that came spilling over the crags beneath which they were driving. Then, suddenly, they were out in the

open plain, and the source of the light lay before them in all its glory.

It was very quiet in the little cabin now that the motors had stopped. The only sound was the faint whisper of the oxygen feed and an occasional metallic crepitation as the outer walls of the vehicle radiated away their heat. For no warmth at all came from the great silver crescent that floated low above the far horizon and flooded all this land with pearly light. It was so brilliant that minutes passed before Marvin could accept its challenge and look steadfastly into its glare, but at last he could discern the outlines of continents, the hazy border of the atmosphere, and the white islands of cloud. And even at this distance, he could see the glitter of sunlight on the polar ice.

It was beautiful, and it called to his heart across the abyss of space. There in that shining crescent were all the wonders that he had never known—the hues of sunset skies, the moaning of the sea on pebbled shores, the patter of falling rain, the unhurried benison of snow. These and a thousand others should have been his rightful heritage, but he knew them only from the books and ancient records, and the thought filled him with the anguish of exile.

Why could they not return? It seemed so peaceful beneath those lines of marching cloud. Then Marvin, his eyes no longer blinded by the glare, saw that the portion of the disk that should have been in darkness was gleaming faintly with an evil phosphorescence: and he remembered. He was looking upon the funeral pyre of a world—upon the radioactive aftermath of Armageddon. Across a quarter of a million miles of space, the glow of dying atoms was still visible, a perennial reminder of the ruinous past. It would be centuries yet before that deadly glow died from the rocks and life could return again to fill that silent, empty world.

And now Father began to speak, telling Marvin the story which until this moment had meant no more to him than the fairy tales he had once been told. There were many things he could not understand: it was impossible for him to picture the glowing,



multicolored pattern of life on the planet he had never seen. Nor could he comprehend the forces that had destroyed it in the end, leaving the Colony, preserved by its isolation, as the sole survivor. Yet he could share the agony of those final days, when the Colony had learned at last that never again would the supply ships come flaming down through the stars with gifts from home. One by one the radio stations had ceased to call: on the shadowed globe the lights of the cities had dimmed and died, and they were alone at last, as no men had ever been alone before, carrying in their hands the future of the race.

Then had followed the years of despair, and the long-drawn battle for survival in this fierce and hostile world. That battle had been won, though barely: this little oasis of life was safe against the worst that Nature could do. But unless there was a goal, a future toward which it could work, the Colony would lose the will to live, and neither machines nor skill nor science could save it then.

So, at last, Marvin understood the purpose of this pilgrimage. He would never walk beside the rivers of that lost and legendary world, or listen to the thunder raging above its softly rounded hills. Yet one day—how far ahead?—his children's children would return to claim their heritage. The winds and the rains would scour the poisons from the burning lands and carry them to the sea, and in the depths of the sea they would waste their venom until they could harm no living things. Then the great ships that were still waiting here on the silent, dusty plains could lift once more into space, along the road that led to home.

That was the dream: and one day, Marvin knew with a sudden flash of insight, he would pass it on to his own son, here at this same spot with the mountains behind him and the silver light from the sky streaming into his face.

He did not look back as they began the homeward journey. He could not bear to see the cold glory of the crescent Earth fade from the rocks around him, as he went to rejoin his people in their long exile.

## Notes

Like Benét's "By the Waters of Babylon," Arthur Clarke's "If I Forget Thee, O Earth" deals with the initiation of a youth into the adult society of a post-catastrophic future. The similarities of the stories might be enumerated, not the least of which is the skill with which both authors evoke their imagined worlds. Most important, however, are certain essential differences: not only in the ages of the boys but also in narrative perspective and tone. Benét's John, son of John, reflects upon his own past actions which ended in his unique medicine-dream and his personal affirmation: "We must build again." In contrast, Clarke allows the reader to discover through Marvin's eyes "the land which he had never yet entered" and the world he can never enter. For John, son of John, since then, manhood and leadership; for ten-year-old Marvin, the end of childhood's innocence and the beginning of understanding.

Again in contrast to Benét, Clarke succeeds through graphically visualizing his scene and giving dramatic immediacy to the journey of Marvin and his father. The high mark of Clarke's artistry lies, however, in the tension that he creates between his account of their drive through the "jumbled wasteland of craters, mountain ranges, and ravines" and a series of images that make vivid what it means to live in the moon colony. One, Marvin's puzzlement over the nursery rhyme, is pathetic in its suggestion of the loss of commonplace knowledge: "he knew what stars were . . . [but] what did they mean by *twinkle*." At first the images center upon confinement and the very fact of life. In the Farmlands, for example, "The smell of life was everywhere, awakening inexpressible longings in his heart: no longer was he breathing the dry, cool air of the residential levels, purged of all smells . . ." Marvin notices his father's exuberance, as though he were "trying to escape from something." These images culminate as Marvin looks upon "the lost and legendary world"; the rivers, the raging thunder, "the hues of sunset skies, the patter of falling rain, the unhurried benison of snow": all involve air and water and, therefore, life. Clarke augments them by images stressing isolation: "the barely visible track," although "it seemed" other men had traveled it; the feeling that men had never explored this land, although "once" they saw the wreckage of a burned-out rocket and a cross; and the vastness, to a ten-year-old's eyes, of the interminable mountains.

Through the tension between such images and the dramatic immediacy of the journey, Clarke gives a density of texture and a reality to the human condition achieved by few other sf writers. Through Marvin the reader learns what it is like to live as he does and thus can better share his awakening.

Yet as he listens to the father's story and looks "upon the radioactive aftermath of Armageddon," the reader understands that this is, indeed, a "pilgrimage." Marvin is no longer important as an individual; his is but the single name given to those countless generations of children who will be brought upon the same journey to keep alive a dream. He becomes a symbolic figure—filled "with the anguish of exile"—and rediscovers for us the heritage, the love of Earth, which stands at the heart of Arthur Clarke's lament.

It seems appropriate that the title should be adapted from the 137th Psalm. (Indeed, though the one word differs from the King James text, there is the suggestion that both Clarke and Benét—two authors who succeeded so well with the same theme—may have had that Psalm in mind as they wrote.)

By the rivers of Babylon, there  
we sat down, yea, we wept, when  
we remembered Zion.

We hanged our harps upon the  
willows in the midst thereof.

For there they that carried us  
away captive required of us a song;  
and they that wasted us *required of*  
*us* mirth, *saying*, Sing us one of the  
songs of Zion.

How shall we sing the Lord's song  
in a strange land?

If I forget thee, O Jerusalem, let  
my right hand forget *her cunning*.

If I do not remember thee, let my  
tongue cleave to the roof of my  
mouth; if I prefer not Jerusalem  
above my chief joy. . . .



## DESERTION

Clifford D. Simak

(1944, 1952)

### *Editor's Preface*

These are the stories that the Dogs tell when the fires burn high and the wind is from the north. Then each family circle gathers at the hearthstone and the pups sit silently and listen and when the story's done they ask many questions:

"What is Man?" they'll ask.

Or perhaps: "What is a city?"

Or: "What is a war?"

There is no positive answer to any of these questions. There are suppositions and there are theories and there are many educated guesses, but there are no answers.

In a family circle, many a storyteller has been forced to fall back on the ancient explanation that it is nothing but a story, there is no such thing as a Man or city, that one does not search for truth in a simple tale, but takes it for its pleasure and lets it go at that.

Explanations such as these, while they may do to answer pups, are no explanations. One does search for truth in such simple tales as these.

The legend, consisting of eight tales, has been told for countless centuries. So far as can be determined, it has no historic starting point; the most minute study of it fails entirely to illustrate the stages of its development. There is no doubt that through many years of telling it has become stylized, but there is no way to trace the direction of its stylization.

That it is ancient and, as some writers claim, that it may be of non-Doggish origin in part, is borne out by the abundance of jabberwocky which studs the tales—words and phrases (and worst of all, ideas) which have no meaning now and may have never had a meaning. Through telling and retelling, these words and phrases have become accepted, have been assigned, through context, a certain arbitrary value. But there is no way of knowing whether or not these arbitrary values even approximate the original meaning of the words.

This edition of the tales will not attempt to enter into the many technical arguments concerning the existence or nonexistence of Man, of the puzzle of the city, of the several theories relating to war, or of the many other questions which arise to plague the student who would seek in the legend some evidence of its having roots in some basic or historic truth.

The purpose of this edition is only to give the full, unexpurgated text of the tales as they finally stand. Chapter notes are utilized to point out the major points of speculation, but with no attempt at all to achieve conclusions. For those who wish some further understanding of the tales or of the many points of consideration which have arisen over them there are ample texts, written by Dogs of far greater competence than the present editor.

Recent discovery of fragments of what originally must have been an extensive body of literature has been advanced as the latest argument which would attribute at least part of the legend to mythological (and controversial) Man rather than to the Dogs. But until it can be proved that Man did, in fact, exist, argument that the discovered fragments originated with Man can have but little point.

Particularly significant or disturbing, depending upon the viewpoint that one takes, is the fact the apparent title of the literary fragment is the same as the title of one of the tales in the legend here presented. The word itself, of course, is entirely meaningless.

The first question, of course, is whether there ever was such a

creature as Man. At the moment, in the absence of positive evidence, the sober consensus must be that there was not, that Man, as presented in the legend, is a figment of folklore invention. Man may have risen in the early days of Doggish culture as an imaginary being, a sort of racial god, on which the Dogs might call for help, to which they might retire for comfort.

Despite these sober conclusions, however, there are those who see in Man an actual elder god, a visitor from some mystic land or dimension, who came and stayed awhile and helped and then passed on to the place from which he came.

There still are others who believe that Man and Dog may have risen together as two co-operating animals, may have been complementary in the development of a culture, but that at some distant point in time they reached the parting of the ways.

Of all the disturbing factors in the tales (and they are many) the most disturbing is the suggestion of reverence which is accorded Man. It is hard for the average reader to accept this reverence as mere storytelling. It goes far beyond the perfunctory worship of a tribal god; one almost instinctively feels that it must be deep-rooted in some now forgotten belief or rite involving the prehistory of our race.

There is little hope now, of course, that any of the many areas of controversy which revolve about the legend ever will be settled.

Here, then, are the tales, to be read as you see fit—for pleasure only, for some sign of historical significance, for some hint of hidden meaning. Our best advice to the average reader: Don't take them too much to heart, for complete confusion, if not madness, lurks along the road.

### *Notes on the Fourth Tale*

Of all the tales this is the one which has occasioned the most anguish on the part of those who would seek some explanation and significance in the legend.

That it must be entirely myth and nothing else even Tige will admit. But if it is myth, what does it mean? If this tale is myth, are not all the others myth as well?

Jupiter, where the action takes place, is supposed to be one of the other worlds which may be found by crossing space. The scientific impossibility of the existence of such worlds has been noted elsewhere. And, if we are to accept Bounce's theory that the other worlds dealt with in the legend are none other than our own multiple worlds, it seems reasonable to suppose that such a world as the one described would have been located by this date. That there are certain of the cobbly worlds which are closed is common knowledge, but the reason for their closure is well known and none of them is closed because of conditions such as those described in this fourth tale.

Some scholars believe that the fourth tale is an interloper, that it has no business in the legend, that it is something which was picked up and inserted bodily. It is hard to accept this conclusion since the tale does tie in with the legend, furnishing one of the principal story pivots upon which the legend turns.

The character of Towser in this tale has been cited on many occasions as inconsistent with the essential dignity of our race.

Yet, while Towser may be distasteful to certain squeamish readers, he serves well as a foil for the human in the story. It is Towser, not the human, who is first ready to accept the situation which develops; Towser, not the human, who is the first to understand. And Towser's mind, once it is freed from human domination, is shown to be at least the equal of the human's.

Towser, flea-bitten as he may be, is a character one need not be ashamed of.

Short as it is, this fourth tale probably is the most rewarding of the eight. It is one that recommends itself for thoughtful, careful reading.



#### IV. *Desertion*

Four men, two by two, had gone into the howling maelstrom that was Jupiter and had not returned. They had walked into the keening gale—or rather, they had loped, bellies low against the ground, wet sides gleaming in the rain.

For they did not go in the shape of men.

Now the fifth man stood before the desk of Kent Fowler, head of Dome No. 3, Jovian Survey Commission.

Under Fowler's desk, old Towser scratched a flea, then settled down to sleep again.

Harold Allen, Fowler saw with a sudden pang, was young—too young. He had the easy confidence of youth, the face of one who never had known fear. And that was strange. For men in the domes of Jupiter did know fear—fear and humility. It was hard for Man to reconcile his puny self with the mighty forces of the monstrous planet.

"You understand," said Fowler, "that you need not do this. You understand that you need not go."

It was formula, of course. The other four had been told the same thing, but they had gone. This fifth one, Fowler knew, would go as well. But suddenly he felt a dull hope stir within him that Allen wouldn't go.

"When do I start?" asked Allen.

There had been a time when Fowler might have taken quiet pride in that answer, but not now. He frowned briefly.

"Within the hour," he said.

Allen stood waiting, quietly.

"Four other men have gone out and have not returned," said Fowler. "You know that, of course. We want you to return. We don't want you going off on any heroic rescue expedition. The main thing, the only thing, is that you come back, that you prove man can live in a Jovian form. Go to the first survey stake, no

farther, then come back. Don't take any chances. Don't investigate anything. Just come back."

Allen nodded. "I understand all that."

"Miss Stanley will operate the converter," Fowler went on. "You need have no fear on that particular score. The other men were converted without mishap. They left the converter in apparently perfect condition. You will be in thoroughly competent hands. Miss Stanley is the best qualified conversion operator in the Solar System. She has had experience on most of the other planets. That is why she's here."

Allen grinned at the woman and Fowler saw something flicker across Miss Stanley's face—something that might have been pity, or rage—or just plain fear. But it was gone again and she was smiling back at the youth who stood before the desk. Smiling in that prim, school-teacherish way she had of smiling, almost as if she hated herself for doing it.

"I shall be looking forward," said Allen, "to my conversion."

And the way he said it, he made it all a joke, a vast, ironic joke.

But it was no joke.

It was serious business, deadly serious. Upon these tests, Fowler knew, depended the fate of men on Jupiter. If the tests succeeded, the resources of the giant planet would be thrown open. Man would take over Jupiter as he already had taken over the other smaller planets. And if they failed—

If they failed, Man would continue to be chained and hampered by the terrific pressure, the greater force of gravity, the weird chemistry of the planet. He would continue to be shut within the domes, unable to set actual foot upon the planet, unable to see it with direct, unaided vision, forced to rely upon the awkward tractors and the televisor, forced to work with clumsy tools and mechanisms or through the medium of robots that themselves were clumsy.

For Man, unprotected and in his natural form, would be blotted out by Jupiter's terrific pressure of fifteen thousand pounds per square inch, pressure that made terrestrial sea bottoms seem a vacuum by comparison.

Even the strongest metal Earthmen could devise couldn't exist under pressure such as that, under the pressure and the alkaline rains that forever swept the planet. It grew brittle and flaky, crumbling like clay, or it ran away in little streams and puddles of ammonia salts. Only by stepping up the toughness and strength of that metal, by increasing its electronic tension, could it be made to withstand the weight of thousands of miles of swirling, choking gases that made up the atmosphere. And even when that was done, everything had to be coated with tough quartz to keep away the rain—the liquid ammonia that fell as bitter rain.

Fowler sat listening to the engines in the sub-floor of the dome—engines that ran on endlessly, the dome never quiet of them. They had to run and keep on running, for if they stopped, the power flowing into the metal walls of the dome would stop, the electronic tension would ease up and that would be the end of everything.

Towser roused himself under Fowler's desk and scratched another flea, his leg thumping hard against the floor.

"Is there anything else?" asked Allen.

Fowler shook his head. "Perhaps there's something you want to do," he said. "Perhaps you—"

He had meant to say write a letter and he was glad he caught himself quick enough so he didn't say it.

Allen looked at his watch. "I'll be there on time," he said. He swung around and headed for the door.

Fowler knew Miss Stanley was watching him and he didn't want to turn and meet her eyes. He fumbled with a sheaf of papers on the desk before him.

"How long are you going to keep this up?" asked Miss Stanley and she bit off each word with a vicious snap.

He swung around in his chair and faced her then. Her lips were drawn into a straight, thin line, her hair seemed skinned back from her forehead tighter than ever, giving her face that queer, almost startling death-mask quality.

He tried to make his voice cool and level. "As long as there's any need of it," he said. "As long as there's any hope."

"You're going to keep on sentencing them to death," she said. "You're going to keep marching them out face to face with Jupiter. You're going to sit in here safe and comfortable and send them out to die."

"There is no room for sentimentality, Miss Stanley," Fowler said, trying to keep the note of anger from his voice. "You know as well as I do why we're doing this. You realize that Man in his own form simply cannot cope with Jupiter. The only answer is to turn men into the sort of things that can cope with it. We've done it on the other planets."

"If a few men die, but we finally succeed, the price is small. Through the ages men have thrown away their lives on foolish things, for foolish reasons. Why should we hesitate, then, at a little death in a thing as great as this?"

Miss Stanley sat stiff and straight, hands folded in her lap, the lights shining on her graying hair and Fowler, watching her, tried to imagine what she might feel, what she might be thinking. He wasn't exactly afraid of her, but he didn't feel quite comfortable when she was around. These sharp blue eyes saw too much, her hands looked far too competent. She should be somebody's Aunt sitting in a rocking chair with her knitting needles. But she wasn't. She was the top-notch conversion unit operator in the Solar System and she didn't like the way he was doing things.

"There is something wrong, Mr. Fowler," she declared.

"Precisely," agreed Fowler. "That's why I'm sending young Allen out alone. He may find out what it is."

"And if he doesn't?"

"I'll send someone else."

She rose slowly from her chair, started toward the door, then stopped before his desk.

"Some day," she said, "you will be a great man. You never let a chance go by. This is your chance. You knew it was when this dome was picked for the tests. If you put it through, you'll go up a notch or two. No matter how many men may die, you'll go up a notch or two."

"Miss Stanley," he said and his voice was curt, "young Allen is going out soon. Please be sure that your machine—"

"My machine," she told him, icily, "is not to blame. It operates along the co-ordinates the biologists set up."

He sat hunched at his desk, listening to her footsteps go down the corridor.

What she said was true, of course. The biologists had set up the co-ordinates. But the biologists could be wrong. Just a hair-breadth of difference, one iota of digression and the converter would be sending out something that wasn't the thing they meant to send. A mutant that might crack up, go haywire, come unstuck under some condition or stress of circumstance wholly unsuspected.

For Man didn't know much about what was going on outside. Only what his instruments told him was going on. And the samplings of those happenings furnished by those instruments and mechanisms had been no more than samplings, for Jupiter was unbelievably large and the domes were very few.

Even the work of the biologists in getting the data on the Lopers, apparently the highest form of Jovian life, had involved more than three years of intensive study and after that two years of checking to make sure. Work that could have been done on Earth in a week or two. But work that, in this case, couldn't be done on Earth at all, for one couldn't take a Jovian life form to Earth. The pressure here on Jupiter couldn't be duplicated outside of Jupiter and at Earth pressure and temperature the Lopers would simply have disappeared in a puff of gas.

Yet it was work that had to be done if Man ever hoped to go about Jupiter in the life form of the Lopers. For before the converter could change a man to another life form, every detailed physical characteristic of that life form must be known—surely and positively, with no chance of mistake.

Allen did not come back.

The tractors, combing the nearby terrain, found no trace of him, unless the skulking thing reported by one of the drivers had been the missing Earthman in Loper form.

The biologists sneered their most accomplished academic sneers when Fowler suggested the co-ordinates might be wrong. Carefully they pointed out, the co-ordinates worked. When a man was put into the converter and the switch was thrown, the man became a Loper. He left the machine and moved away, out of sight, into the soupy atmosphere.

Some quirk, Fowler had suggested; some tiny deviation from the thing a Loper should be, some minor defect. If there were, the biologists said, it would take years to find it.

And Fowler knew that they were right.

So there were five men now instead of four and Harold Allen had walked out into Jupiter for nothing at all. It was as if he'd never gone so far as knowledge was concerned.

Fowler reached across his desk and picked up the personnel file, a thin sheaf of paper neatly clipped together. It was a thing he dreaded but a thing he had to do. Somehow the reason for these strange disappearances must be found. And there was no other way than to send out more men.

He sat for a moment listening to the howling of the wind above the dome, the everlasting thundering gale that swept across the planet in boiling, twisting wrath.

Was there some threat out there, he asked himself? Some danger they did not know about? Something that lay in wait and gobbled up the Lopers, making no distinction between Lopers that were *bona fide* and Lopers that were men? To the gobblers, of course, it would make no difference.

Or had there been a basic fault in selecting the Lopers as the type of life best fitted for existence on the surface of the planet? The evident intelligence of the Lopers, he knew, had been one factor in that determination. For if the thing Man became did not have capacity for intelligence, Man could not for long retain his own intelligence in such a guise.

Had the biologists let that one factor weigh too heavily, using it to offset some other factor that might be unsatisfactory, even disastrous? It didn't seem likely. Stiffnecked as they might be, the biologists knew their business.

Or was the whole thing impossible, doomed from the very start? Conversion to other life forms had worked on other planets, but that did not necessarily mean it would work on Jupiter. Perhaps Man's intelligence could not function correctly through the sensory apparatus provided Jovian life. Perhaps the Lopers were so alien there was no common ground for human knowledge and the Jovian conception of existence to meet and work together.

Or the fault might lie with Man, be inherent with the race. Some mental aberration which, coupled with what they found outside, wouldn't let them come back. Although it might not be an aberration, not in the human sense. Perhaps just one ordinary human mental trait, accepted as commonplace on Earth, would be so violently at odds with Jovian existence that it would blast human sanity.

Claws rattled and clicked down the corridor. Listening to them, Fowler smiled wanly. It was Towser coming back from the kitchen, where he had gone to see his friend, the cook.

Towser came into the room, carrying a bone. He wagged his tail at Fowler and flopped down beside the desk, bone between his paws. For a long moment his rheumy old eyes regarded his master and Fowler reached down a hand to ruffle a ragged ear.

"You still like me, Towser?" Fowler asked and Towser thumped his tail.

"You're the only one," said Fowler.

He straightened and swung back to the desk. His hand reached out and picked up the file.

Bennett? Bennett had a girl waiting for him back on Earth.

Andrews? Andrews was planning on going back to Mars Tech just as soon as he earned enough to see him through a year.

Olson? Olson was nearing pension age. All the time telling the boys how he was going to settle down and grow roses.

Carefully, Fowler laid the file back on the desk.

Sentencing men to death. Miss Stanley had said that, her pale lips scarcely moving in her parchment face. Marching men out to die while he, Fowler, sat here safe and comfortable.

They were saying it all through the dome, no doubt, especially since Allen had failed to return. They wouldn't say it to his face, of course. Even the man or men he called before this desk and told they were the next to go, wouldn't say it to him.

But he would see it in their eyes.

He picked up the file again. Bennett, Andrews, Olson. There were others, but there was no use in going on.

Kent Fowler knew that he couldn't do it, couldn't face them, couldn't send more men out to die.

He leaned forward and flipped up the toggle on the intercommunicator.

"Yes, Mr. Fowler."

"Miss Stanley, please."

He waited for Miss Stanley, listening to Towser chewing half-heartedly on the bone. Towser's teeth were getting bad.

"Miss Stanley," said Miss Stanley's voice.

"Just wanted to tell you, Miss Stanley, to get ready for two more."

"Aren't you afraid," asked Miss Stanley, "that you'll run out of them? Sending out one at a time, they'd last longer, give you twice the satisfaction."

"One of them," said Fowler, "will be a dog."

"A dog!"

"Yes, Towser."

He heard the quick, cold rage that iced her voice. "Your own dog! He's been with you all these years—"

"That's the point," said Fowler. "Towser would be unhappy if I left him behind."

It was not the Jupiter he had known through the televisior. He had expected it to be different, but not like this. He had expected a hell of ammonia rain and stinking fumes and the deafening, thundering tumult of the storm. He had expected swirling clouds and fog and the snarling flicker of monstrous thunderbolts.

He had not expected the lashing downpour would be reduced to drifting purple mist that moved like fleeing shadows over a



red and purple sward. He had not even guessed the snaking bolts of lightning would be flares of pure ecstasy across a painted sky.

Waiting for Towser, Fowler flexed the muscles of his body, amazed at the smooth, sleek strength he found. Not a bad body, he decided, and grimaced at remembering how he had pitied the Lopers when he glimpsed them through the television screen.

For it had been hard to imagine a living organism based upon ammonia and hydrogen rather than upon water and oxygen, hard to believe that such a form of life could know the same quick thrill of life that humankind could know. Hard to conceive of life out in the soupy maelstrom that was Jupiter, not knowing, of course, that through Jovian eyes it was no soupy maelstrom at all.

The wind brushed against him with what seemed gentle fingers and he remembered with a start that by Earth standards the wind was a roaring gale, a two-hundred-mile an hour howler laden with deadly gases.

Pleasant scents seeped into his body. And yet scarcely scents, for it was not the sense of smell as he remembered it. It was as if his whole being was soaking up the sensation of lavender—and yet not lavender. It was something, he knew, for which he had no word, undoubtedly the first of many enigmas in terminology. For the words he knew, the thought symbols that served him as an Earthman would not serve him as a Jovian.

The lock in the side of the dome opened and Towser came tumbling out—at least he thought it must be Towser.

He started to call to the dog, his mind shaping the words he meant to say. But he couldn't say them. There was no way to say them. He had nothing to say them with.

For a moment his mind swirled in muddy terror, a blind fear that eddied in little puffs of panic through his brain.

How did Jovians talk? How—

Suddenly he was aware of Towser, intensely aware of the bumbling, eager friendliness of the shaggy animal that had followed him from Earth to many planets. As if the thing that was Towser had reached out and for a moment sat within his brain.

And out of the bubbling welcome that he sensed, came words.

"Hiya, pal."

Not words really, better than words. Thought symbols in his brain, communicated thought symbols that had shades of meaning words could never have.

"Hiya, Towser," he said.

"I feel good," said Towser. "Like I was a pup. Lately I've been feeling pretty punk. Legs stiffening up on me and teeth wearing down to almost nothing. Hard to mumble a bone with teeth like that. Besides, the fleas give me hell. Used to be I never paid much attention to them. A couple of fleas more or less never meant much in my early days."

"But . . . but—" Fowler's thoughts tumbled awkwardly. "You're talking to me!"

"Sure thing," said Towser. "I always talked to you, but you couldn't hear me. I tried to say things to you, but I couldn't make the grade."

"I understood you sometimes," Fowler said.

"Not very well," said Towser. "You knew when I wanted food and when I wanted a drink and when I wanted out, but that's about all you ever managed."

"I'm sorry," Fowler said.

"Forget it," Towser told him. "I'll race you to the cliff."

For the first time, Fowler saw the cliff, apparently many miles away, but with a strange crystalline beauty that sparkled in the shadow of the many-colored clouds.

Fowler hesitated. "It's a long way—"

"Ah, come on," said Towser and even as he said it he started for the cliff.

Fowler followed, testing his legs, testing the strength in that new body of his, a bit doubtful at first, amazed a moment later, then running with a sheer joyousness that was one with the red and purple sward, with the drifting smoke of the rain across the land.

As he ran the consciousness of music came to him, a music that

beat into his body, that surged throughout his being, that lifted him on wings of silver speed. Music like bells might make from some steeple on a sunny, springtime hill.

As the cliff drew nearer the music deepened and filled the universe with a spray of magic sound. And he knew the music came from the tumbling waterfall that feathered down the face of the shining cliff.

Only, he knew, it was no waterfall, but an ammonia-fall and the cliff was white because it was oxygen, solidified.

He skidded to a stop beside Towser where the waterfall broke into a glittering rainbow of many hundred colors. Literally many hundred, for here, he saw, was no shading of one primary to another as human beings saw, but a clearcut selectivity that broke the prism down to its last ultimate classification.

"The music," said Towser.

"Yes, what about it?"

"The music," said Towser, "is vibrations. Vibrations of water falling."

"But, Towser, you don't know about vibrations."

"Yes, I do," contended Towser. "It just popped into my head."

Fowler gulped mentally. "Just popped!"

And suddenly, within his own head, he held a formula—the formula for a process that would make metal to withstand the pressure of Jupiter.

He stared, astounded, at the waterfall and swiftly his mind took the many colors and placed them in their exact sequence in the spectrum. Just like that. Just out of blue sky. Out of nothing, for he knew nothing either of metals or of colors.

"Towser," he cried. "Towser, something's happening to us!"

"Yeah, I know," said Towser.

"It's our brains," said Fowler. "We're using them, all of them, down to the last hidden corner. Using them to figure out things we should have known all the time. Maybe the brains of Earth things naturally are slow and foggy. Maybe we are the morons of the universe. Maybe we are fixed so we have to do things the hard way."

And, in the new sharp clarity of thought that seemed to grip him, he knew that it would not only be the matter of colors in a waterfall or metals that would resist the pressure of Jupiter. He sensed other things, things not quite clear. A vague whispering that hinted of greater things, of mysteries beyond the pale of human thought, beyond even the pale of human imagination. Mysteries, fact, logic built on reasoning. Things that any brain should know if it used all its reasoning power.

"We're still mostly Earth," he said. "We're just beginning to learn a few of the things we are to know—a few of the things that were kept from us as human beings, perhaps because we were human beings. Because our human bodies were poor bodies. Poorly equipped for thinking, poorly equipped in certain senses that one has to have to know. Perhaps even lacking in certain senses that are necessary to true knowledge."

He stared back at the dome, a tiny black thing dwarfed by the distance.

Back there were men who couldn't see the beauty that was Jupiter. Men who thought that swirling clouds and lashing rain obscured the planet's face. Unseeing human eyes. Poor eyes. Eyes that could not see the beauty in the clouds, that could not see through the storm. Bodies that could not feel the thrill of trilling music stemming from the rush of broken water.

Men who walked alone, in terrible loneliness, talking with their tongue like Boy Scouts wigwagging out their messages, unable to reach out and touch one another's mind as he could reach out and touch Towser's mind. Shut off forever from that personal, intimate contact with other living things.

He, Fowler, had expected terror inspired by alien things out here on the surface, had expected to cower before the threat of unknown things, had steeled himself against disgust of a situation that was not of Earth.

But instead he had found something greater than Man had ever known. A swifter, surer body. A sense of exhilaration, a deeper sense of life. A sharper mind. A world of beauty that even the dreamers of the Earth had not yet imagined.

"Let's get going," Towser urged.

"Where do you want to go?"

"Anywhere," said Towser. "Just start going and see where we end up. I have a feeling . . . well, a feeling—"

"Yes, I know," said Fowler.

For he had the feeling, too. The feeling of high destiny. A certain sense of greatness. A knowledge that somewhere off beyond the horizons lay adventure and things greater than adventure.

Those other five had felt it, too. Had felt the urge to go and see, the compelling sense that here lay a life of fullness and of knowledge.

That, he knew, was why they had not returned.

"I won't go back," said Towser.

"We can't let them down," said Fowler.

Fowler took a step or two, back toward the dome, then stopped.

Back to the dome. Back to that aching, poison-laden body he had left. It hadn't seemed aching before, but now he knew it was.

Back to the fuzzy brain. Back to muddled thinking. Back to the flapping mouths that formed signals others understood. Back to eyes that now would be worse than no sight at all. Back to squalor, back to crawling, back to ignorance.

"Perhaps some day," he said, muttering to himself.

"We got a lot to do and a lot to see," said Towser. "We got a lot to learn. We'll find things—"

Yes, they could find things. Civilizations, perhaps. Civilizations that would make the civilization of Man seem puny by comparison. Beauty and, more important, an understanding of that beauty. And a comradeship no one had ever known before—that no man, no dog had ever known before.

And life. The quickness of life after what seemed a drugged existence.

"I can't go back," said Towser.

"Nor I," said Fowler.

"They would turn me back into a dog," said Towser.  
"And me," said Fowler, "back into a man."

## Notes

Like Isaac Asimov and Robert Heinlein, Clifford D. Simak sketched the panorama of the future history of man and Earth. Unlike them, in eight stories published between 1944 and 1951 and gathered together in the episodic novel *City* (1952), he judged man and found him wanting. By his own admission, his intellectual reaction to the events of World War II and its aftermath fueled his theme. Whereas Arthur C. Clarke's "If I Forget Thee, O Earth" was a lament, Simak's *City* was an indictment.

Significantly, he turned, as had H. G. Wells, to biology and the psychological make-up of the race to examine its destiny. He, too, knew that man as a species may well change, perhaps not realizing the extent or consequences of that change until it was too late to counteract it. His was a three-pronged attack: first, upon man's "preoccupation with a mechanical civilization rather than with a culture based on some of the sounder, more worthwhile concepts of life"; secondly, upon "his inability to understand and appreciate the thought and viewpoint of another man," resulting in a terrible isolation within his own consciousness that produced a "psychological, almost a physiological need for approval of [his] thoughts and actions" and an intolerance "of any divergence from the norm"; thirdly, upon his "mad scramble for power and knowledge," though he had no humane vision to guide him or his use of his acquisitions.

Each episode focuses upon a crucial moment, sometimes centuries apart, for the eight as a whole span a sweep of 10,000 years. Simak's point of departure is the assertion that such scientific advancements as atomic power, automation, helicopters, and hydroponics will destroy man's urban culture, rendering both the city and farming obsolete, thereby forcing mankind into a crisis situation to which it must adapt quickly. The second episode portrays a "manorial existence, based on old family homes and leisurely acres, with atomics supplying power and robots in place of serfs." Once the cheek-to-jowl torment of city life ends, the pendulum swings to the opposite pole; through misjudgments and psychological limitations, man falters.

The first four episodes—"Desertion" was the fourth—were written and published in 1944, although internal evidence in "Desertion"

indicates a lack of the narrative ties which Simak employed throughout the others. Originally, then, it stood alone, but he did make it "pivotal" to the whole of *City*. It provided him, conveniently, with a means of clearing the stage of mankind. Given the promise of something better, all but an impotent handful flee to Jupiter; mankind escapes its humanity without regret. As an individual story, "Desertion" undertakes one of the classic sf patterns: the solution of a specific problem. In its resolution, however, it is unique. It has importance, too, both for the lack of physical action and for concentration upon the character of Fowler. Yet he alone—even as a first-person narrator—could not give a credible report of the awakening he experiences. Simak must find a way to verify it. This Towser does effectively by reinforcing the concept of greatly increased awareness. Most important, of course, "Desertion" dramatizes Simak's denunciation of the human condition more fully than any of the previous episodes.

Yet *City* is no dystopian tirade, as were so many sf stories after World War II. Again Simak draws upon biology for the speculation setting the series apart. In discussing human destiny, one character reflects: "Thus far has man come alone. One thinking, intelligent race all by itself. Think how much farther, how much faster it might have gone had there been two races . . . A *different* mind than the human mind, but one that will work with the human mind. That will see and understand things the human mind cannot, that will develop, if you will, philosophies the human mind could not." To end man's isolation, he deliberately induces successful mutations into dogs so that they can speak and have sight with which to read. When man falters, the dogs' culture flourishes. Knowledge of their origin and subservience to man is kept from them so that they will have a chance to develop freely. Man himself becomes a legend. Doggish culture is psychically oriented; killing is unknown (an inheritance from the last few centuries of man); all animals are tamed and life is revered; the existence of parallel worlds, side-by-side in time, is discovered.

Yet *City* is no canine pastoral. Just as the destiny of the dogs was changed, so, too, through pure intellectual curiosity, that of the ants is changed. A man encloses an anthill and warms it so that they will not have to hibernate, no longer have to start their cycle anew each year. Although he idly destroys the hill, the ants emerge millennia later, controlling the robots so as to build a great metallic hill which engulfs the Earth. The dogs must move to a parallel world, from which they can examine the legend of Man.

Any summary can only suggest the intellectual complexity of *City*. Simak kept before him the principle of change and created a credible

non-human world. He brought to science fiction the vitality of the animal fable as a perspective from which to make moral judgment. His realization of that potential of *City* seems apparent in that the seventh episode is entitled "Aesop," while reference is made in its note to the discovery of an ancient literary fragment, possibly of "non-Doggish origin," bearing the same title. In a sense, however, his finest touch occurs in his adaptation of the traditional narrative frame—done "on his own" to tie the stories together when they were published as a novel. Its simplicity of tone is deceptive; through it, its "editor" gives the whole an objective and scholarly detachment which elevates the seriousness of *City*. It transforms a series of tales into a subject worthy of study; it provides him yet another means to underscore his theme: "Without at least broad purpose, without certain implanted stability, no culture can survive, and this is the lesson."

As long as the dream persevered that science and technology would contribute to the inevitable progress of mankind, science fiction remained the instrument of a callow didacticism, as in the utopias, and could project only a linear future which was but an extension of the present-day. Seeming to ignore the metaphors of Wells, the body of sf assumed the survival of humanity and its cultures. Even those writers who warned that disasters might occur, after which man would have to rebuild (and correct certain social injustices) merely played with the cyclic theory of history. The mythos of the galactic empire also assumed that whatever mutations and separations might take place, humanity's descendants would eventually emerge triumphant throughout the universe. After Hiroshima, moving toward an anti-scientific stance, many sf writers substituted dystopia for utopia, but the effect was the same: the projection of a linear history. Their voices grew more urgent, perhaps, as they foresaw an earthly hell instead of an earthly paradise, but once again their social concern limited them to a portrait of man and his future society.

In *City*, Clifford Simak freed recent science fiction from its set patterns by opening the possibility for the creation of imaginary worlds better able to sustain metaphor. As few sf writers before him, he gave science fiction a moral stature. Perhaps no work between Olaf Stapledon's *Last and First Men* (1930) and *City* so well illustrated the potential of the genre for the novel of ideas. In recognition of its achievement, *City* received the International Fantasy Award in 1953.



## THIRTEEN FOR CENTAURUS

J. G. Ballard

(1962)

Abel knew.

Three months earlier, just after his sixteenth birthday, he had guessed, but had been too unsure of himself, too overwhelmed by the logic of his discovery, to mention it to his parents. At times, lying back half asleep in his bunk while his mother crooned one of the old lays to herself, he would deliberately repress the knowledge, but always it came back, nagging at him insistently, forcing him to jettison most of what he had long regarded as the real world.

None of the other children at the Station could help. They were immersed in their games in Playroom, or chewing pencils over their tests and homework.

"Abel, what's the matter?" Zenna Peters called after him as he wandered off to the empty storeroom on D-Deck. "You're looking sad again."

Abel hesitated, watching Zenna's warm, puzzled smile, then slipped his hands into his pockets and made off, springing down the metal stairway to make sure she didn't follow him. Once she sneaked into the storeroom uninvited and he had pulled the light bulb out of the socket, shattered about three weeks of conditioning. Dr. Francis had been furious.

As he hurried along the D-Deck corridor he listened carefully for the doctor, who had recently been keeping an eye on Abel, watching him shrewdly from behind the plastic models in Playroom. Perhaps Abel's mother had told him about the nightmare,

when he would wake from a vice of sweating terror, an image of a dull burning disc fixed before his eyes.

*If only Dr. Francis could cure him of that dream.*

Every six yards down the corridor he stepped through a bulkhead, and idly touched the heavy control boxes on either side of the doorway. Deliberately unfocusing his mind, Abel identified some of the letters above the switches

M-T-R      SC-N

but they scrambled into a blur as soon as he tried to read the entire phrase. Conditioning was too strong. After he trapped her in the storeroom Zenna had been able to read a few of the notices, but Dr. Francis whisked her away before she could repeat them. Hours later, when she came back, she remembered nothing.

As usual when he entered the storeroom, he waited a few seconds before switching on the light, seeing in front of him the small disc of burning light that in his dreams expanded until it filled his brain like a thousand arc lights. It seemed endlessly distant, yet somehow mysteriously potent and magnetic, arousing dormant areas of his mind close to those which responded to his mother's presence.

As the disc began to expand he pressed the switch tab.

To his surprise, the room remained in darkness. He fumbled for the switch, a short cry slipping involuntarily through his lips. Abruptly, the light went on.

"Hello, Abel," Dr. Francis said easily, right hand pressing the bulb into its socket. "Quite a shock, that one." He leaned against a metal crate. "I thought we'd have a talk together about your essay." He took an exercise book out of his white plastic suit as Abel sat down stiffly. Despite his dry smile and warm eyes there was something about Dr. Francis that always put Abel on his guard.

*Perhaps Dr. Francis knew too?*

"The Closed Community," Dr. Francis read out. "A strange subject for an essay, Abel."

Abel shrugged. "It was a free choice. Aren't we really expected to choose something unusual?"

Dr. Francis grinned. "A good answer. But seriously, Abel, why pick a subject like that?"

Abel fingered the seals on his suit. These served no useful purpose, but by blowing through them it was possible to inflate the suit. "Well, it's a sort of study of life at the Station, how we all get on with each other. What else is there to write about?—I don't see that it's so strange."

"Perhaps not. No reason why you shouldn't write about the Station. All four of the others did too. But you called yours 'The Closed Community.' The Station isn't closed, Abel—or is it?"

"It's closed in the sense that we can't go outside," Abel explained slowly. "That's all I meant."

"Outside," Dr. Francis repeated. "It's an interesting concept. You must have given the whole subject a lot of thought. When did you first start thinking along these lines?"

"After the dream," Abel said. Dr. Francis had deliberately side-stepped his use of the word "outside" and he searched for some means of getting to the point. In his pocket he felt the small plumbline he carried around. "Dr. Francis, perhaps you can explain something to me. Why is the Station revolving?"

"Is it?" Dr. Francis looked up with interest. "How do you know?"

Abel reached up and fastened the plumbline to the ceiling stanchion. "The interval between the ball and the wall is about an eighth of an inch greater at the bottom than at the top. Centrifugal forces are driving it outwards. I calculated that the Station is revolving at about two feet per second."

Dr. Francis nodded thoughtfully. "That's just about right," he said matter-of-factly. He stood up. "Let's take a trip to my office. It looks as if it's time you and I had a serious talk."

The Station was on four levels. The lower two contained the crew's quarters, two circular decks of cabins which housed the

14 people on board the Station. The senior clan was the Peters, led by Captain Theodore, a big stern man of taciturn disposition who rarely strayed from Control. Abel had never been allowed there, but the Captain's son, Matthew, often described the hushed domelike cabin filled with luminous dials and flickering lights, the strange humming music.

All the male members of the Peters clan worked in Control—Grandfather Peters, a white-haired old man with humorous eyes, had been Captain before Abel was born—and with the Captain's wife and Zenna they constituted the elite of the Station.

However, the Grangers, the clan to which Abel belonged, was in many respects more important, as he had begun to realize. The day-to-day running of the Station, the detailed programming of emergency drills, duty rosters and commissary menus, was the responsibility of Abel's father, Matthias, and without his firm but flexible hand the Bakers, who cleaned the cabins and ran the commissary, would never have known what to do. And it was only the deliberate intermingling in Recreation which his father devised that brought the Peters and Bakers together, or each family would have stayed indefinitely in its own cabins.

Lastly, there was Dr. Francis. He didn't belong to any of the three clans. Sometimes Abel asked himself where Dr. Francis had come from, but his mind always fogged at a question like that, as the conditioning blocks fell like bulkheads across his thought trains (logic was a dangerous tool at the Station). Dr. Francis' energy and vitality, his relaxed good humor—in a way, he was the only person in the Station who ever made any jokes—were out of character with everyone else. Much as he sometimes disliked Dr. Francis for snooping around and being a know-all, Abel realized how dreary life in the Station would seem without him.

Dr. Francis closed the door of his cabin and gestured Abel into a seat. All the furniture in the Station was bolted to the floor, but Abel noticed that Dr. Francis had unscrewed his chair so that he could tilt it backward. The huge vacuum-proof cylinder of the doctor's sleeping tank jutted from the wall, its massive metal body

able to withstand any accident the Station might suffer. Abel hated the thought of sleeping in the cylinder—luckily the entire crew quarters were accident-secure—and wondered why Dr. Francis chose to live alone up on A-Deck.

"Tell me, Abel," Dr. Francis began, "has it ever occurred to you to ask why the Station is here?"

Abel shrugged. "Well, it's designed to keep us alive, it's our home."

"Yes, that's true, but obviously it has some other object than just our own survival. Who do you think built the Station in the first place?"

"Our fathers, I suppose, or grandfathers. Or *their* grandfathers."

"Fair enough. And where were they before they built it?"

Abel struggled with the *reductio ad absurdum*. "I don't know, they must have been floating around in mid-air!"

Dr. Francis joined in the laughter. "Wonderful thought. Actually it's not that far from the truth. But we can't accept that as it stands."

The doctor's self-contained office gave Abel an idea. "Perhaps they came from another Station? An even bigger one?"

Dr. Francis nodded encouragingly. "Brilliant, Abel. A first-class piece of deduction. All right, then, let's assume that. Somewhere, away from us, a huge Station exists, perhaps a hundred times bigger than this one, maybe even a thousand. Why not?"

"It's possible," Abel admitted, accepting the idea with surprising ease.

"Right. Now you remember your course in advanced mechanics—the imaginary planetary system, with the orbiting bodies held together by mutual gravitational attraction? Let's assume further that such a system actually exists. O.K.?"

"Here?" Abel said quickly. "In your cabin?" Then he added "In your sleeping cylinder?"

Dr. Francis sat back. "Abel, you do come up with some amazing things. An interesting association of ideas. No, it would be too big for that. Try to imagine a planetary system orbiting around a

central body of absolutely enormous size, each of the planets a million times larger than the Station." When Abel nodded, he went on. "And suppose that the big Station, the one a thousand times larger than this, were attached to one of the planets, and that the people in it decided to go to another planet. So they build a smaller Station, about the size of this one, and sent it off through the air. Make sense?"

"In a way." Strangely, the completely abstract concepts were less remote than he would have expected. Deep in his mind dim memories stirred, interlocking with what he had already guessed about the Station. He gazed steadily at Dr. Francis. "You're saying that's what the Station is doing? That the planetary system exists?"

Dr. Francis nodded. "You'd more or less guessed before I told you. Unconsciously, you've known all about it for several years. A few minutes from now I'm going to remove some of the conditioning blocks, and when you wake up in a couple of hours you'll understand everything. You'll know then that in fact the Station is a spaceship, flying from our home planet, Earth, where our grandfathers were born, to another planet millions of miles away, in a distant orbiting system. Our grandfathers always lived on Earth, and we are the first people ever to undertake such a journey. You can be proud that you're here. Your grandfather, who volunteered to come, was a great man, and we've got to do everything to make sure that the Station keeps running."

Abel nodded quickly. "When do we get there—the planet we're flying to?"

Dr. Francis looked down at his hands, his face growing somber. "We'll never get there, Abel. The journey takes too long. This is a multi-generation space vehicle, only our children will land and they'll be old by the time they do. But don't worry, you'll go on thinking of the Station as your only home, and that's deliberate, so that you and your children will be happy here."

He went over to the TV monitor screen by which he kept in touch with Captain Peters, his fingers playing across the control tabs. Suddenly the screen lit up, a blaze of fierce points of light

flared into the cabin, throwing a brilliant phosphorescent glitter across the walls, dappling Abel's hands and suit. He gaped at the huge balls of fire, apparently frozen in the middle of a giant explosion, hanging in vast patterns.

"This is the celestial sphere," Dr. Francis explained. "The starfield into which the Station is moving." He touched a bright speck of light in the lower half of the screen. "Alpha Centauri, the star around which revolves the planet the Station will one day land upon." He turned to Abel. "You remember all these terms I'm using, don't you, Abel? None of them seems strange."

Abel nodded, the wells of his unconscious memory flooding into his mind as Dr. Francis spoke. The TV screen blanked and then revealed a new picture. They appeared to be looking down at an enormous topline structure, the flanks of a metal pylon sloping toward its center. In the background the starfield rotated slowly in a clockwise direction. "This is the Station," Dr. Francis explained, "seen from a camera mounted on the nose boom. All visual checks have to be made indirectly, as the stellar radiation would blind us. Just below the ship you can see a single star, the Sun, from which we set out 50 years ago. It's now almost too distant to be visible, but a deep inherited memory of it is the burning disc you see in your dreams. We've done what we can to erase it, but unconsciously all of us see it too."

He switched off the set and the brilliant pattern of light swayed and fell back. "The social engineering built into the ship is far more intricate than the mechanical, Abel. It's three generations since the Station set off, and birth, marriage and birth again have followed exactly as they were designed to. As your father's heir great demands are going to be made on your patience and understanding. Any disunity here would bring disaster. The conditioning programs are not equipped to give you more than a general outline of the course to follow. Most of it will be left to you."

"Will you always be here?"

Dr. Francis stood up. "No, Abel, I won't. No one here lives for-

ever. Your father will die, and Captain Peters and myself." He moved to the door. "We'll go now to Conditioning. In three hours' time, when you wake up, you'll find yourself a new man."

Letting himself back into his cabin, Francis leaned wearily against the bulkhead, feeling the heavy rivets with his fingers, here and there flaking away as the metal slowly rusted. When he switched on the TV set he looked tired and dispirited, and gazed absently at the last scene he had shown Abel, the boom camera's view of the ship. He was just about to select another frame when he noticed a dark shadow swing across the surface of the hull.

He leaned forward to examine it, frowning in annoyance as the shadow moved away and faded among the stars. He pressed another tab, and the screen divided into a large chessboard, five frames wide by five deep. The top line showed Control, the main pilot and navigation deck lit by the dim glow of the instrument panels, Captain Peters sitting impassively before the compass screen.

Next, he watched Matthias Granger begin his afternoon inspection of the ship. Most of the passengers seemed reasonably happy, but their faces lacked any luster. All spent at least 2-3 hours each day bathing in the UV light flooding through the recreation lounge, but the pallor continued, perhaps an unconscious realization that they had been born and were living in what would also be their own tomb. Without the continuous conditioning sessions, and the hypnotic reassurance of the subsonic voices, they would long ago have become will-less automatons.

Switching off the set, he prepared to climb into the sleeping cylinder. The airlock was three feet in diameter, waist-high off the floor. The time seal rested at zero, and he moved it forward 12 hours, then set it so that the seal could only be broken from within. He swung the lock out and crawled in over the molded foam mattress, snapping the door shut behind him.

Lying back in the thin yellow light, he slipped his fingers through the ventilator grille in the rear wall, pressed the unit into its socket and turned it sharply. Somewhere an electric mo-



tor throbbed briefly, the end wall of the cylinder swung back slowly like a vault door and bright daylight poured in.

Quickly, Francis climbed out onto a small metal platform that jutted from the upper slope of a huge white asbestos-covered dome. Fifty feet above was the roof of a large hangar. A maze of pipes and cables traversed the surface of the dome, interlacing like the vessels of a giant bloodshot eye, and a narrow stairway led down to the floor below. The entire dome, some 150 feet wide, was revolving slowly. A line of five trucks was drawn up by the stores depot on the far side of the hangar, and a man in a brown uniform waved to him from one of the glass-walled offices.

At the bottom of the ladder he jumped down onto the hangar floor, ignoring the curious stares from the soldiers unloading the stores. Halfway across he craned up at the revolving bulk of the dome. A black perforated sail, 50 feet square, like a fragment of a planetarium, was suspended from the roof over the apex of the dome, a TV camera directly below it, a large metal sphere mounted about five feet from the lens. One of the guy ropes had snapped and the sail tilted slightly to reveal the catwalk along the center of the roof.

He pointed this out to a maintenance sergeant warming his hands in one of the ventilator outlets from the dome. "You'll have to string that back. Some fool was wandering along the catwalk and throwing his shadow straight onto the model. I could see it clearly on the TV screen. Luckily no one spotted it."

"O.K., Doctor, I'll get it fixed." He chuckled sourly. "That would have been a laugh, though. Really give them something to worry about."

The man's tone annoyed Francis. "They've got plenty to worry about as it is."

"I don't know about that, Doctor. Some people here think they have it all ways. Quiet and warm in there, nothing to do except sit back and listen to those hypno-drills." He looked out bleakly at the abandoned airfield stretching away to the cold tundra be-

yond the perimeter, and turned up his collar. "We're the boys back here on Mother Earth who do the work, out in this Godforsaken dump. If you need any more space cadets, Doctor, remember me."

Francis managed a smile and stepped into the control office, made his way through the clerks sitting at trestle tables in front of the progress charts. Each carried the name of one of the dome passengers and a tabulated breakdown of progress through the psychometric tests and conditioning programs. Other charts listed the day's rosters, copies of those posted that morning by Matthias Granger.

Inside Colonel Chalmers' office Francis relaxed back gratefully in the warmth, describing the salient features of his day's observation. "I wish you could go in there and move around them, Paul," he concluded, "it's not the same spying through the TV cameras. You've got to talk to them, measure yourself against people like Granger and Peters."

"You're right, they're fine men, like all the others. It's a pity they're wasted there."

"They're not wasted," Francis insisted. "Every piece of data will be immensely valuable when the first spaceships set out." He ignored Chalmers' muttered "If they do" and went on: "Zenna and Abel worry me a little. It may be necessary to bring forward the date of their marriage. I know it will raise eyebrows, but the girl is as fully mature at 15 as she will be four years from now, and she'll be a settling influence on Abel, stop him from thinking too much."

Chalmers shook his head doubtfully. "Sounds a good idea, but a girl of 15 and a boy of 16—? You'd raise a storm, Roger. Technically they're wards of court, every decency league would be up in arms."

Francis gestured irritably. "Need they know? We've really got a problem with Abel, the boy's too clever. He'd more or less worked out for himself that the Station was a spaceship, he merely lacked the vocabulary to describe it. Now that we're start-

ing to lift the conditioning blocks he'll want to know everything. It will be a big job to prevent him from smelling a rat, particularly with the slack way this place is being run. Did you see the shadow on the TV screen? We're damn lucky Peters didn't have a heart attack."

Chalmers nodded. "I'm getting that tightened up. A few mistakes are bound to happen, Roger. It's damn cold for the control crew working around the dome. Try to remember that the people outside are just as important as those inside."

"Of course. The real trouble is that the budget is ludicrously out of date. It's only been revised once in 50 years. Perhaps General Short can generate some official interest, get a new deal for us. He sounds like a pretty brisk new broom." Chalmers pursed his lips doubtfully, but Francis continued, "I don't know whether the tapes are wearing out, but the negative conditioning doesn't hold as well as it used to. We'll probably have to tighten up the programs. I've made a start by pushing Abel's graduation forward."

"Yes, I watched you on the screen here. The control boys became quite worked up next door. One or two of them are as keen as you, Roger, they'd been programming ahead for three months. It meant a lot of time wasted for them. I think you ought to check with me before you make a decision like that. The dome isn't your private laboratory."

Francis accepted the reproof. Lamely, he said, "It was one of those spot decisions, I'm sorry. There was nothing else to do."

Chalmers gently pressed home his point. "I'm not so sure. I thought you rather overdid the long-term aspects of the journey. Why go out of your way to tell him he would never reach planet-fall? It only heightens his sense of isolation, makes it that much more difficult if we decide to shorten the journey."

Francis looked up. "There's no chance of that, is there?"

Chalmers paused thoughtfully. "Roger, I really advise you not to get too involved with the project. Keep saying to yourself they're-not-going-to-Alpha-Centauri. They're here on Earth, and

if the government decided it they'd be let out tomorrow. I know the courts would have to sanction it but that's a formality. It's 50 years since this project was started and a good number of influential people feel that it's gone on for too long. Ever since the Mars and Moon colonies failed space programs have been cut right back. They think the money here is being poured away for the amusement of a few sadistic psychologists."

"You know that isn't true," Francis retorted. "I may have been overhasty, but on the whole this project has been scrupulously conducted. Without exaggeration, if you did send a dozen people on a multi-generation ship to Alpha Centauri you couldn't do better than duplicate everything that's taken place here, down to the last cough and sneeze. If the information we've obtained had been available, the Mars and Moon colonies never would have failed!"

"True. But irrelevant. Don't you understand, when everyone was eager to get into space they were prepared to accept the idea of a small group being sealed into a tank for 100 years, particularly when the original team volunteered. Now, when interest has evaporated, people are beginning to feel that there's something obscene about this human zoo, what began as a grand adventure of the spirit of Columbus, has become a grisly joke. In one sense we've learned too much—the social stratification of the three families is the sort of unwelcome datum that doesn't do the project much good. Another is the complete ease with which we've manipulated them, made them believe anything we've wanted." Chalmers leaned forward across the desk. "Confidentially, Roger, General Short has been put in command for one reason only—to close this place down. It may take years, but it's going to be done, I warn you. The important job now is to get those people out of there, not keep them in."

Francis stared bleakly at Chalmers. "Do you really believe that?"

"Frankly, Roger, yes. This project should never have been launched. You can't manipulate people the way we're doing—the

endless hypno-drills, the forced pairing of children—look at yourself, five minutes ago you were seriously thinking of marrying two teen-age children just to stop them using their minds. The whole thing degrades human dignity, all the taboos, the increasing degree of introspection—sometimes Peters and Granger don't speak to anyone for two or three weeks—the way life in the dome has become tenable only by accepting the insane situation as the normal one. I think the reaction against the project is healthy.”

Francis stared out at the dome. A gang of men were loading the so-called “compressed food” (actually frozen foods with the brand names removed) into the commissary hatchway. Next morning, when Baker and his wife dialed the prearranged menu, the supplies would be promptly delivered, apparently from the space-hold. To some people, Francis knew, the project might well seem a complete fraud.

Quietly he said: “The people who volunteered accepted the sacrifice, and all it involved. How's Short going to get them out? Just open the door and whistle?”

Chalmers smiled, a little wearily. “He's not a fool, Roger. He's as sincerely concerned about their welfare as you are. Half the crew, particularly the older ones, would go mad within five minutes. But don't be disappointed, the project has more than proved its worth.”

“It won't do that until they land.' If the project ends it will be we who have failed, not them. We can't rationalize by saying it's cruel or unpleasant. We owe it to the 14 people in the dome to keep it going.”

Chalmers watched him shrewdly. “14? You mean 13, don't you, Doctor? Or are you inside the dome too?”

The ship had stopped rotating. Sitting at his desk in Command, planning the next day's fire drills, Abel noticed the sudden absence of movement. All morning, as he walked around the ship—he no longer used the term Station—he had been aware of an inward drag that pulled him toward the wall, as if one leg were shorter than the other.

When he mentioned this to his father the older man merely said: "Captain Peters is in charge of Control. Always let him worry where the navigation of the ship is concerned."

This sort of advice now meant nothing to Abel. In the previous two months his mind had attacked everything around him voraciously, probing and analyzing, examining every facet of life in the Station. An enormous, once suppressed vocabulary of abstract terms and relationships lay latent below the surface of his mind, and nothing would stop him applying it.

Over their meal trays in the commissary he grilled Matthew Peters about the ship's flight path, the great parabola which would carry it to Alpha Centauri.

"What about the currents built into the ship?" he asked. "The rotation was designed to eliminate the magnetic poles set up when the ship was originally constructed. How are you compensating for that?"

Matthew looked puzzled. "I'm not sure, exactly. Probably the instruments are automatically compensated." When Abel smiled skeptically he shrugged. "Anyway, Father knows all about it. There's no doubt we're right on course.

"We hope," Abel murmured *sotto voce*. The more Abel asked Matthew about the navigational devices he and his father operated in Control the more obvious it became that they were merely carrying out low-level instrument checks, and that their role was limited to replacing burnt-out pilot lights. Most of the instruments operated automatically, and they might as well have been staring at cabinets full of mattress fluff.

What a joke if they were!

Smiling to himself, Abel realized that he had probably stated no more than the truth. It would be unlikely for the navigation to be entrusted to the crew when the slightest human error could throw the spaceship irretrievably out of control, send it hurtling into a passing star. The designers of the ship would have sealed the automatic pilots well out of reach, given the crew light supervisory duties that created an illusion of control.

That was the real clue to life aboard the ship. None of their roles could be taken at face value. The day-to-day, minute-to-minute programming carried out by himself and his father were merely a set of variations on a pattern already laid down; the permutations possible were endless, but the fact that he could send Matthew Peters to the commissary at 12 o'clock rather than 12:30 didn't give him any real power over Matthew's life. The master programs printed by the computers selected the day's menus, safety drills and recreation periods, and a list of names to choose from, but the slight leeway allowed, the extra two or three names supplied, were there in case of illness, not to give Abel any true freedom of choice.

One day, Abel promised himself, he would program himself out of the conditioning sessions. Shrewdly he guessed that the conditioning still blocked out a great deal of interesting material, that half his mind remained submerged. Something about the ship suggested that there might be more to it than—

"Hello, Abel, you look far away." Dr. Francis sat down next to him. "What's worrying you?"

"I was just calculating something," Abel explained quickly. "Tell me, assuming that each member of the crew consumes about three pounds of non-circulated food each day, roughly half a ton per year, the total cargo must be about 800 tons, and that's not allowing for any supplies after planet-fall. There should be at least 1500 tons aboard. Quite a weight."

"Not in absolute terms, Abel. The Station is only a small fraction of the ship. The main reactors, fuel tanks and space holds together weigh over 30,000 tons. They provide the gravitational pull that holds you to the floor."

Abel shook his head slowly. "Hardly, Doctor, the attraction must come from the stellar gravitational fields, or the weight of the ship would have to be about  $6 \times 10^{20}$  tons."

Dr. Francis watched Abel reflectively, aware that the young man had led him into a simple trap. The figure he had quoted was near enough the Earth's mass. "These are complex problems,

Abel. I wouldn't worry too much about stellar mechanics. Captain Peters has that responsibility."

"I'm not trying to usurp it," Abel assured him. "Merely to extend my own knowledge. Don't you think it might be worth departing from the rules a little? For example, it would be interesting to test the effects of continued isolation. We could select a small group, subject them to artificial stimuli, even seal them off from the rest of the crew and condition them to believe they were back on Earth. It could be a really valuable experiment, Doctor."

As he waited in the conference room for General Short to finish his opening harangue, Francis repeated the last sentence to himself, wondering idly what Abel, with his limitless enthusiasm, would have made of the circle of defeated faces around the table.

"... regret as much as you do, gentlemen, the need to discontinue the project. However, now that a decision has been made by the Space Department, it is our duty to implement it. Of course, the task won't be an easy one. What we need is a phased withdrawal, a gradual readjustment of the world around the crew that will bring them down to Earth as gently as a parachute." The General was a brisk, sharp-faced man in his fifties, with burly shoulders but sensitive eyes. He turned to Dr. Kersh, who was responsible for the dietary and bietric controls aboard the dome. "From what you tell me, Doctor, we might not have as much time as we'd like. This boy Abel sounds something of a problem."

Kersh smiled. "I was looking in at the commissary, overheard him tell Dr. Francis that he wanted to run an experiment on a small group of the crew. An isolation drill, would you believe it. He's estimated that the two-man tractor crews may be isolated for up to two years when the first foraging trips are made."

Captain Sanger, the engineering officer, added: "He's also trying to duck his conditioning sessions. He's wearing a couple of foam pads under his earphones, missing about 90 per cent of the subsonics. We spotted it when the EEG tape we record showed no alpha waves. At first we thought it was a break in the cable,



but when we checked visually on the screen we saw that he had his eyes open. He wasn't listening."

Francis drummed on the table. "It wouldn't have mattered. The subsonic was a maths instruction sequence—the four-figure anti-log system."

"A good thing he did miss them," Kersh said with a laugh. "Sooner or later he'll work out that the dome is traveling in an elliptical orbit 93 million miles from a dwarf star of the G<sub>0</sub> spectral class."

"What are you doing about this attempt to evade conditioning, Dr. Francis?" Short asked. When Francis shrugged vaguely he added: "I think we ought to regard the matter fairly seriously. From now on we'll be relying on the programming."

Flatly, Francis said: "Abel will resume the conditioning. There's no need to do anything. Without the regular daily contact he'll soon feel lost. The subsonic voice is composed of his mother's vocal tones, when he no longer hears it he'll lose his orientations, feel completely deserted."

Short nodded slowly. "Well, let's hope so." He addressed Dr. Kersh. "At a rough estimate, Doctor, how long will it take to bring them back? Bearing in mind they'll have to be given complete freedom and that every TV and newspaper network in the world will interview each one a hundred times."

Kersh chose his words carefully. "Obviously a matter of years, General. All the conditioning drills will have to be gradually re-scored, as a stop-gap measure we may need to introduce a meteor collision . . . guessing, I'd say three to five years. Possibly longer."

"Fair enough. What would you estimate, Dr. Francis?"

Francis fiddled with his blotter, trying to view the question seriously. "I've no idea. *Bring them back*. What do you really mean, General? Bring what back?" Irritated, he snapped: "A hundred years."

Laughter crossed the table, and Short smiled at him, not un-

amiably. "That's fifty years more than the original project, Doctor. You can't have been doing a very good job here."

Francis shook his head. "You're wrong, General. The original project was to get them to Alpha Centauri. Nothing was said about bringing them *back*." When the laughter fell away Francis cursed himself for his foolishness; antagonizing the General wouldn't help the people in the dome.

But Short seemed unruffled. "All right, then, it's obviously going to take some time." Pointedly, with a glance at Francis, he added: "It's the men and women in the ship we're thinking of, not ourselves, if we need a hundred years we'll take them, not one less. You may be interested to hear that the Space Department chiefs feel about fifteen years will be necessary. At least." There was a quickening of interest around the table. Francis watched Short with surprise. In fifteen years a lot could happen, there might be another spaceward swing of public opinion.

"The Department recommends that the project continue as before, with whatever budgetary parings we can make—stopping the dome is just a start—and that we condition the crew to believe that a round trip is in progress, that their mission is merely one of reconnaissance, and that they are bringing vital information back to Earth. When they step out of the spaceship they'll be treated as heroes and accept the strangeness of the world around them." Short looked across the table, waiting for someone to reply. Kersh stared doubtfully at his hands, and Sanger and Chalmers played mechanically with their blotters.

Just before Short continued Francis pulled himself together, realizing that he was faced with his last opportunity to save the project. However much they disagreed with Short, none of the others would try to argue with him.

"I'm afraid that won't do, General," he said, "though I appreciate the Department's foresight and your own sympathetic approach. The scheme you've outlined sounds plausible, but it just won't work." He sat forward, his voice controlled and precise. "General, ever since they were children these people have been trained to

accept that they were a closed group, and would never have contact with anyone else. On the unconscious level, on the level of their functional nervous systems, no one else in the world exists, for them the neuronics basis of reality is isolation. You'll never train them to invert their whole universe, any more than you can train a fish to fly. If you start to tamper with the fundamental patterns of their psyches you'll produce the sort of complete mental block you see when you try to teach a left-handed person to use his right."

Francis glanced at Dr. Kersh, who was nodding in agreement. "Believe me General, contrary to what you and the Space Department naturally assume, the people in the dome do *not* want to come out. Given the choice they would prefer to stay there, just as the goldfish prefers to stay in its bowl."

Short paused before replying, evidently reassessing Francis. "You may be right, Doctor," he admitted. "But where does that get us? We've got 15 years, perhaps 25 at the outside."

"There's only one way to do it," Francis told him. "Let the project continue, exactly as before, but with one difference. Prevent them from marrying and having children. In 25 years only the present younger generation will still be alive, and a further five years from then they'll all be dead. A life span in the dome is little more than 45 years. At the age of 30 Abel will probably be an old man. When they start to die off no one will care about them any longer."

There was a full half minute's silence, and then Kersh said: "It's the best suggestion, General. Humane, and yet faithful both to the original project and the Department's instructions. The absence of children would be only a slight deviation from the conditioned pathway. The basic isolation of the group would be strengthened, rather than diminished, also their realization that they themselves will never see planet-fall. If we drop the pedagogical drills and play down the space flight they will soon become a small close community, little different from any other out-group on the road to extinction."

Chalmers cut in: "Another point, General. It would be far easier—and cheaper—to stage, and as the members died off we could progressively close down the ship until finally there might be only a single deck left, perhaps even a few cabins."

Short stood up and paced over to the window, looking out through the clear glass over the frosted panes at the great dome in the hangar.

"It sounds a dreadful prospect," he commented. "Completely insane. As you say, though, it may be the only way out."

Moving quietly among the trucks parked in the darkened hangar, Francis paused for a moment to look back at the lighted windows of the control deck. Two or three of the night staff sat watch over the line of TV screens, half asleep themselves as they observed the sleeping occupants of the dome.

He ducked out of the shadows and ran across to the dome, climbed the stairway to the entrance point thirty feet above. Opening the external lock, he crawled in and closed it behind him, then unfastened the internal entry hatch and pulled himself out of the sleeping cylinder into the silent cabin.

A single dim light glowed over the TV monitor screen as it revealed the three orderlies in the control deck, lounging back in a haze of cigarette smoke six feet from the camera.

Francis turned up the speaker volume, then tapped the mouthpiece sharply with his knuckle.

Tunic unbuttoned, sleep still shadowing his eyes, Colonel Chalmers leaned forward intently into the screen, the orderlies at his shoulder.

"Believe me, Roger, you're proving nothing. General Short and the Space Department won't withdraw their decision now that a special bill of enactment has been passed." When Francis still looked skeptical he added: "If anything, you're more likely to jeopardize them."

"I'll take a chance," Francis said. "Too many guarantees have been broken in the past. Here I'll be able to keep an eye on things." He tried to sound cool and unemotional; the cine-

cameras would be recording the scene and it was important to establish the right impression. General Short would be only too keen to avoid a scandal. If he decided Francis was unlikely to sabotage the project he would probably leave him in the dome.

Chalmers pulled up a chair, his face earnest, "Roger, give yourself time to reconsider everything. You may be more of a discordant element than you realize. Remember, nothing would be easier than getting you out—a child could cut his way through the rusty hull with a blunt can opener."

"Don't try it," Francis warned him quietly. "I'll be moving down to C-Deck, so if you come in after me they'll all know. Believe me, I won't try to interfere with the withdrawal programs. And I won't arrange any teen-age marriages. But I think the people inside may need me now for more than eight hours a day."

"Francis!" Chalmers shouted. "Once you go down there you'll never come out! Don't you realize you're entombing yourself in a situation that's totally unreal? You're deliberately withdrawing into a nightmare, sending yourself off on a non-stop journey to *nowhere!*"

Curtly, before he switched the set off for the last time, Francis replied: "Not nowhere, Colonel: Alpha Centauri."

Sitting down thankfully in the narrow bunk in his cabin, Francis rested briefly before setting off for the commissary. All day he had been busy coding the computer punch tapes for Abel, and his eyes ached with the strain of manually stamping each of the thousands of minuscule holes. For eight hours he had sat without a break in the small isolation cell, electrodes clamped to his chest, knees and elbows while Abel measured his cardiac and respiratory rhythms.

The tests bore no relation to the daily programs Abel now worked out for his father, and Francis was finding it difficult to maintain his patience. Initially Abel had tested his ability to follow a prescribed set of instructions, producing an endless exponential function, then a digital representation of *pi* to a thousand places. Finally Abel had persuaded Francis to co-

operate in a more difficult test—the task of producing a totally random sequence. Whenever he unconsciously repeated a simple progression, as he did if he was tired or bored, or a fragment of a larger possible progression, the computer scanning his progress sounded an alarm on the desk and he would have to start afresh. After a few hours the buzzer rasped out every ten seconds, snapping at him like a bad-tempered insect. Francis had finally hobbled over to the door that afternoon, entangling himself in the electrode leads, found to his annoyance that the door was locked (ostensibly to prevent any interruption by a fire patrol), then saw through the small porthole that the computer in the cubicle outside was running unattended.

But when Francis' pounding roused Abel from the far end of the next laboratory he had been almost irritable with the doctor for wanting to discontinue the experiment.

"Damn it, Abel, I've been punching away at these things for three weeks now." He winced as Abel disconnected him, brusquely tearing off the adhesive tape. "Trying to produce random sequences isn't all that easy—my sense of reality is beginning to fog." (Sometimes he wondered if Abel was secretly waiting for this.) "I think I'm entitled to a vote of thanks."

"But we arranged for the trial to last three days, Doctor," Abel pointed out. "It's only later that the valuable results begin to appear. It's the errors you make that are interesting. The whole experiment is pointless now."

"Well, it's probably pointless anyway. Some mathematicians used to maintain that a random sequence was impossible to define."

"But we can assume that it is possible," Abel insisted. "I was just giving you some practice before we started on the transfinite numbers."

Francis balked here. "I'm sorry, Abel. Maybe I'm not so fit as I used to be. Anyway, I've got other duties to attend to."

"But they don't take long, Doctor. There's really nothing for you to do now."

He was right, as Francis was forced to admit. In the year he had spent in the dome Abel had remarkably streamlined the daily routines, provided himself and Francis with an excess of leisure time, particularly as the latter never went to conditioning (Francis was frightened of the subsonic voices—Chalmers and Short would be subtle in their attempts to extricate him, perhaps too subtle).

Life aboard the dome had been more of a drain on him than he anticipated. Chained to the routines of the ship, limited in his recreations and with few intellectual pastimes—there were no books aboard the ship—he found it increasingly difficult to sustain his former good humor, was beginning to sink into the deadening lethargy that had overcome most of the other crew members. Matthias Granger had retreated to his cabin, content to leave the programming to Abel, spent his time playing with a damaged clock, while the two Peters rarely strayed from Control. The three wives were almost completely inert, satisfied to knit and murmur to each other. The days passed indistinguishably. Sometimes Francis told himself wryly “he nearly *did* believe that they were en route for Alpha Centauri. That would have been a joke for General Short!”

At 6:30 when he went to the commissary for his evening meal, he found that he was a quarter of an hour late.

“Your meal time was changed this afternoon,” Baker told him, lowering the hatchway. “I got nothing ready for you.”

Francis began to remonstrate but the man was adamant. “I can’t make a special dip into space-hold just because you didn’t look at Routine Orders, can I, Doctor?”

On the way out Francis met Abel, tried to persuade him to countermand the order. “You could have warned me, Abel. Damnation, I’ve been sitting inside your test rig all afternoon.”

“But you went back to your cabin, Doctor,” Abel pointed out smoothly. “You pass three SRO bulletins on your way from the laboratory. Always look at them at every opportunity, remember.

Last-minute changes are liable at any time. I'm afraid you'll have to wait until 10:30 now."

Francis went back to his cabin, suspecting that the sudden change had been Abel's revenge on him for discontinuing the test. He would have to be more conciliatory with Abel, or the young man could make his life a hell, literally starve him to death. Escape from the dome was impossible now—there was a mandatory 20-year sentence on anyone making an unauthorized entry into the space simulator.

After resting for an hour or so, he left his cabin at 8 o'clock to carry out his duty checks of the pressure seals by the B-Deck Meteor Screen. He always went through the pretence of reading them, enjoying the sense of participation in the space flight which the exercise gave him, deliberately accepting the illusion.

The seals were mounted in the control point set at ten yard intervals along the perimeter corridor, a narrow circular passageway around the main corridor. Alone there, the servos clicking and snapping, he felt at peace within the space vehicle. "Earth itself is in orbit around the Sun," he mused as he checked the seals, "and the whole solar system is traveling at 40 miles a second toward the constellation Lyra. The degree of illusion that exists is a complex question."

Something cut through his reverie.

The pressure indicator was flickering slightly. The needle wavered between 0.001 and 0.0015 psi. The pressure inside the dome was fractionally above atmospheric, in order that dust might be expelled through untoward cracks (though the main object of the pressure seals was to get the crew safely into the vacuum-proof emergency cylinders in case the dome was damaged and required internal repairs).

For a moment Francis panicked, wondering whether Short had decided to come in after him—the reading, although meaningless, indicated that a breach had opened in the hull. Then the hand moved back to zero, and footsteps sounded along the radial corridor at right angles past the next bulkhead.



Quickly Francis stepped into its shadow. Before his death old Peters had spent a lot of time mysteriously pottering around the corridor, probably secreting a private food cache behind one of the rusting panels.

He leaned forward as the footsteps crossed the corridor.

Abel?

He watched the young man disappear down a stairway, then made his way into the radial corridor, searching the steel-gray sheeting for a retractable panel. Immediately adjacent to the end wall of the corridor, against the outer skin of the dome, was a small fire-control booth.

A tuft of slate-white hairs lay on the floor of the booth.

Asbestos fibers!

Francis stepped into the booth, within a few seconds located a loosened panel that had rusted off its rivets. About ten inches by six, it slid back easily. Beyond it was the outer wall of the dome, a handsbreadth away. Here too was a loose plate, held in position by a crudely fashioned hook.

Francis hesitated, then lifted the hook and drew back the panel.

*He was looking straight down into the hangar!*

Below, a line of trucks was disgorging supplies onto the concrete floor under a couple of spotlights, a sergeant shouting orders at the labor squad. To the right was the control deck, Chalmers in his office on the evening shift.

The spy-hole was directly below the stairway, and the overhanging metal steps shielded it from the men in the hangar. The asbestos had been carefully frayed so that it concealed the retractable plate. The wire hook was as badly rusted as the rest of the hull, and Francis estimated that the window had been in use for over 30 or 40 years.

So almost certainly old Peters had regularly looked out through the window, and knew perfectly well that the spaceship was a myth. Nonetheless he had stayed aboard, perhaps realizing that the truth would destroy the others, or preferred to be captain of

an artificial ship rather than a self-exposed curiosity in the world outside.

Presumably he had passed on the secret. Not to his bleak taciturn son, but to the one other lively mind, one who would keep the secret and make the most of it. For his own reasons he too had decided to stay in the dome, realizing that he would soon be the effective captain, free to pursue his experiments in applied psychology. He might even have failed to grasp that Francis was not a true member of the crew. His confident mastery of the programming, his lapse of interest in Control, his casualness over the safety devices, all meant one thing—

*Abel knew!*

## Notes

Early in the 1960s J. G. Ballard established himself as one of the major spokesmen for those who would bring technical and thematic innovation to science fiction. In one of the best analyses of his earlier works, Brian Aldiss cited the guest editorial for *New Worlds*, the British sf magazine which has been the focus of the controversy regarding the "New Wave," in which Ballard insisted that "Science fiction must jettison its present narrative forms and plots. Most of them are too explicit to express any subtle interplay between character and theme." He wanted sf to give up its traditional concern with such matters as interstellar travel and aliens in favor of an emphasis upon the biological sciences, for "the only truly alien planet is Earth." It is not clear even now what direction he wishes the genre as a whole to take, but as far as his own works are concerned, he has concentrated upon psychology and the social sciences. The central impulse of his writing has been the deliberate attempt to create vivid, often distorted landscapes which are but projections of tormented, estranged psyches.

Although "Thirteen for Centaurus" may seem no more than an example of his adaptation of conventional material, the multi-generation starflight, into a study of character, it contains hints, at least, of the direction in which his work has developed. Its reality—or fact—is the government-controlled experiment involving the simulated ship. Largely absent, or only implied, in the scenes with Colonel Chalmers

and General Short is the criticism of social engineering that will dominate such stories as "The Subliminal Man," for these central debates about the fate of the project are essentially expository and neutral. They do, however, give Ballard a chance to remind the reader of several judgments of it. Chalmers declares that it is a pity such men as Granger and Peters are "wasted there"; the sergeant told to repair the guy rope of the "celestial sphere" announces that some "people here think they have it all ways"; finally, Dr. Francis emphasizes that for the crew members "the basis of reality is isolation" and that "tampering with the fundamental patterns of their psyches" will cause complete mental blockage (catatonic withdrawal?). These scenes function to underscore the distortion, the absurdity, of the world of the Dome.

"Thirteen for Centaurus" begins as an account of Abel's initiation—not into adult society but into an awareness of his alienation. The reader learns at once that "three months earlier, just after his sixteenth birthday, he guessed . . . forcing him to jettison most of what he had long regarded as the real world." Somehow the dream of the burning disc has helped precipitate his discovery. He knows that he is isolated (the children cannot help) and that there is perhaps a complete divorce between his consciousness and the "true" nature of the world. He is estranged, but he forsakes his previous illusion and deliberately sets out to gather information, turning to Dr. Francis in a series of incidents beginning with his sudden question regarding the rotation of the ship. To what extent he has known about and understood his conditioning, one cannot say for certain, but Francis freely reveals that he is being conditioned (manipulated), at one time saying, "The social engineering built into the ship is far more intricate than the mechanical . . ." He adds that after a three-hour session, Abel will awaken "a new man." But Abel wishes to be his own man; he avoids the sub-sonic programming. He soon decides that "none of their roles could be taken at face value." In other words, he has increasingly realized the meaninglessness of life within the Dome, a verdict reinforced both by the scenes with Chalmers and Short and by Ballard's descriptions of the inmates as potential "will-less automatons." Their psyches have already been tampered with; they are already withdrawing. Were this a later Ballard story, one could easily interpret Abel as a symbolic figure representing the futile, absurd condition of humanity as Ballard sees it.

Any hesitation to do so results from Ballard's shifting his narrative focus from Abel to Dr. Francis, giving him the climactic scene. Once he enters the Dome permanently, he and Abel seem to exchange

their earlier roles. Equally important, whereas Abel has tried deliberately to free himself from the illusion, Francis has deliberately surrendered to it. Ballard tells the reader as much in the final scene, but the suggestion began much earlier. Francis counts himself as the fourteenth member of the crew, tells General Short that the Dome is going to Alpha Centauri, and, as Chalmers shouts at him, entombs himself in "a situation that's totally unreal"—withdraws "into a nightmare." In that final scene, thinking of the movement of the solar system toward Lyra, Francis remarks that "the degree of illusion that exists is a complex question." Both characters, for opposite reasons, are alienated, immersed in the same meaningless world. But what does the double image of estranged man accomplish that the portrait of Abel alone does not? The simplest answer may be that both are necessary to show that neither intellectual effort (Abel) nor physical action—commitment—(Dr. Francis) changes the basic absurdity of existence. On the other hand, anticipating Ballard's later works, the scenes with Chalmers and Short as well as Francis' early authoritarianism may indicate Ballard's attempt to expand the original figure to the order of the universe itself. However one reconciles certain elements of "Thirteen for Centaurus," no one can doubt that Ballard has seen the potential of science fiction for metaphorical statement.

## CAPTAIN HONARIO HARPPLAYER, R.N.

Harry Harrison

(1963)

Captain Honario Harpplayer was pacing the tiny quarter-deck of the H.M.S. *Redundant*, hands clasped behind his back, teeth clamped in impotent fury. Ahead of him the battered French fleet limped toward port, torn sails flapping and spars trailing over-side in the water, splintered hulls agape where his broadsides had gone thundering through their fragile wooden sides.

"Send two hands for'ard, if you please, Mr. Shrub," he said, "and have them throw water on the mainsail. Wet sails will add an eighth of a knot to our speed and we may overtake those cowardly frogs yet."

"B-but, sir," the stolid first mate, Shrub, stammered, quailing before the thought of disagreeing with his beloved captain. "If we take any more hands off the pumps we'll sink. We're holed in thirteen places below the waterline, and . . ."

"Damn your eyes, sir! I issued an order, not a request for a debate. Do as you were told."

"Aye aye, sir," Shrub mumbled, humbled, knuckling a tear from one moist spaniel eye.

Water splashed onto the sails and the *Redundant* instantly sank lower in the water. Harpplayer clasped his hands behind his back and hated himself for this display of unwarranted temper toward the faithful Shrub. Yet he had to keep up this pose of strict disciplinarian before the crew, the sweepings and dregs of a thousand waterfronts, just as he had to wear a girdle to keep up his own front and a truss to keep up his hernia. He had to keep up a good front because he was the captain of this ship, the smallest

ship in the blockading fleet to bear a post captain, yet still an important part of the fleet that lay like a strangling noose around Europe, locking in the mad tyrant Napoleon whose dreams of conquest could never extend to England whilst these tiny wooden ships stood in the way.

"Give us a prayer, cap'n, to speed us on our way to 'eaven cause we're sinkin'!" a voice called from the crowd of seamen at the pumps.

"I'll have that man's name, Mr. Dogleg," Harpplayer called to the midshipman, a mere child of seven or eight, who commanded the detail. "No rum for him for a week."

"Aye aye, sir," piped Mr. Dogleg, who was just learning to talk.

The ship was sinking, the fact was inescapable. Rats were running on deck, ignoring the cursing, stamping sailors, and hurling themselves into the sea. Ahead the French fleet had reached the safety of the shore batteries on Cape Pietfieux and the gaping mouths of these guns were turned toward the *Redundant*, ready to spout fire and death when the fragile ship came within range.

"Be ready to drop sail, Mr. Shrub," Harpplayer said, then raised his voice so all the crew could hear. "Those cowardly Frenchies have run away and cheated us of a million pounds in prize money."

A growl went up from the crew who, next to a love for rum, loved the pounds, shilling and pence with which they could buy the rum. The growl was suddenly cut off in muffled howls of pain as the mainmast, weakened by the badly aimed French cannon, fell onto the mass of laboring men.

"No need to drop sail, Mr. Shrub, the slaves of our friend Boney have done it for us," Harpplayer said, forcing himself to make one of his rare jests so loved by the crew. He hated himself for the falseness of his feelings, ingratiating himself into the sympathies of these illiterate men by such means, but it was his duty to keep a taut ship. Besides, if he didn't make any jokes the men would hate him for the slave-driving, cold-blooded, chance-taking

master that he was. They still hated him, of course, but they laughed while they did it.

They were laughing now as they cut away the tangle of rigging and dragged out the bodies to lay them in neat rows upon the deck. The ship sank lower in the water.

"Avast that body dragging," he ordered, "and man the pumps, or we'll have our dinners on the bottom of the sea."

The men laughed a ragged laugh again and hurried to their tasks.

They were easy to please, and Harpplayer envied them their simple lives. Even with the heavy work, bad water and an occasional touch of the cat, their existence was better than his tortured life on the lonely pinnacle of command. The decisions were all his to make, and to a man of his morbid and paranoiac nature this made life a living hell. His officers, who all hated him, were incompetents. Even Shrub, faithful, long-suffering, loyal Shrub, had his weakness: namely the fact that he had an I.Q. of about 60 which, combined with his low birth, meant he could never rise above the rank of rear-admiral.

While he considered the varied events of the day Harpplayer began his compulsive pacing on the tiny quarter-deck, and its other occupants huddled against the starboard side where they wouldn't be in his way. Four paces in one direction, turn, then three-and-a-half paces back with his knee bringing up with a shuddering crack against the port carronade. Yet Harpplayer did not feel this, his cardplayer's brain was whirling with thoughts, evaluating and weighing plans, rejecting those that held a modicum of sanity and only considering those that sounded too insane to be practical. No wonder he was called "Sapsucker Harpy" throughout the fleet and held in awe as a man who could always pull victory from the jaws of defeat, and always at an immense cost in lives. But that was war. You gave your commands and good men died, and that was what the press gangs on shore were for. It had been a long and trying day, yet he still would not permit himself to relax. Tension and the agony of apprehension had seized him in the relentless grip of a Cerberus ever since

soon after dawn that morning when the lookout had announced the discovery of sails on the horizon. There had been only ten of them, Frenchy ships of the line, and before the morning fog had cleared, the vengeful form of the *Redundant* had been upon them, like a wolf among the sheep. Broadside after broadside had roared out from the precisely serviced English guns, ten balls for every one that popped out of the French cannon, manned by cowardly sweepings of the eighth and ninth classes of 1812, gray-bearded patriarchs and diapered infants who only wished they were back in the familial vineyards instead of here, fighting for the Tyrant, facing up to the wrath of the death-dealing cannon of their island enemy, the tiny country left to fight alone against the might of an entire continent. It had been a relentless stern chase, and only the succor of the French port had prevented the destruction of the entire squadron. As it was, four of them lay among the conger eels on the bottom of the ocean and the remaining six would need a complete refitting before they were fit to leave port and once more dare the retributive might of the ships that ringed their shores.

Harpplayer knew what he had to do.

"If you please, Mr. Shrub, have the hose rigged. I feel it is time for a bath."

A ragged cheer broke from the toiling sailors, since they knew what to expect. In the coldest northern waters or in the dead of winter Harpplayer insisted on this routine of the bath. The hoses were quickly attached to the laboring pumps and soon columns of icy water were jetting across the deck.

"In we go!" shouted Harpplayer, and stepped back well out of the way of any chance droplets, at the same time scratching with a long index finger at the skin of his side, unwashed since the previous summer. He smiled at the childish antics of Shrub and the other officers prancing nude in the water, and only signaled for the pumps to cease their work when all of the white skins had turned a nice cerulean.

There was a rumble, not unlike distant thunder yet sharper and louder, from the northern horizon. Harpplayer turned and for a



long instant saw a streak of fire painted against the dark clouds, before it died from the sky, leaving only an afterimage in his eyes. He shook his head to clear it, and blinked rapidly a few times. For an instant there he could have sworn that the streak of light had come down, instead of going up, but that was manifestly impossible. Too many late nights playing boston with his officers, no wonder his eyesight was going.

"What was that, Captain?" Lieutenant Shrub asked, his words scarcely audible through the chattering of his teeth.

"A signal rocket—or perhaps one of those newfangled Congreve war rockets. There's trouble over there and we're going to find out just what it is. Send the hands to the braces, if you please, fill the main-tops'l and lay her on the starboard tack."

"Can I put my pants on first?"

"No impertinence, sir, or I'll have you in irons!"

Shrub bellowed the orders through the speaking trumpet and all the hands laughed at his shaking naked legs. Yet in a few seconds the well-trained crew, who not six days before had been wenching and drinking ashore on civvy street, never dreaming that the wide-sweeping press gangs would round them up and send them to sea, leapt to the braces, hurled the broken spars and cordage overside, sealed the shot holes, buried the dead, drank their grog and still had enough energy left over for a few of their number to do a gay hornpipe. The ship heeled as she turned, water creamed under her bows and then she was on the new tack, reaching out from the shore, investigating this new occurrence, making her presence felt as the representative of the mightiest blockading fleet the world, at that time, had ever known.

"A ship ahead, sir," the masthead lookout called. "Two points off the starboard bow."

"Beat to quarters," Harpplayer ordered.

Through the heavy roll of the drum and the slap of the sailors' bare horny feet on the deck, the voice of the lookout could be barely heard.

"No sails nor spars, sir. She's about the size of our longboat."

"Belay that last order. And when that lookout comes off duty

I want him to recite five hundred times, a boat is something that's picked up and put on a ship."

Pressed on by the freshing land breeze the *Redundant* closed rapidly on the boat until it could be made out clearly from the deck.

"No masts, no spars, no sails—what makes it move?" Lieutenant Shrub asked with gape-mouthed puzzlement.

"There is no point in speculation in advance, Mr. Shrub. This craft may be French or a neutral so I'll take no chances. Let us have the carronades loaded and run out. And I want the Marines in the futtock-shrowds, with their pieces on the half-cock, if you please. I want no one to fire until they receive my command, and I'll have anyone who does boiled in oil and served for breakfast."

"You are the card, sir!"

"Am I? Remember the cox'in who got his orders mixed yesterday?"

"Very gamey, sir, if I say so," Shrub said, picking a bit of gristle from between his teeth. "I'll issue the orders, sir."

The strange craft was like nothing Harpplayer had ever seen before. It advanced without visible motive power and he thought of hidden rowers with underwater oars, but they would have to be midgets to fit in the boat. It was decked over and appeared to be covered with a glass hutment of some kind. All in all a strange device, and certainly not French. The unwilling slaves of the Octopus in Paris would never master the precise techniques to construct a diadem of the sea such as this. No, this was from some alien land, perhaps from beyond China or the mysterious islands of the East. There was a man seated in the craft and he touched a lever that rolled back the top window. He stood then and waved to them. A concerted gasp ran through the watchers, for every eye in the ship was fastened on this strange occurrence.

"What is this, Mr. Shrub," Harpplayer shouted. "Are we at a fun fair or a Christmas pantomime? Discipline, sir!"

"B-but, sir," the faithful Shrub stammered, suddenly at a loss for words. "That man, sir—he's *green*!"

"I want none of your damn nonsense, sir," Harpplayer snapped

irritably, annoyed as he always was when people babbled about their imagined "colors." Paintings, and sunsets and such tripe. Nonsense. The world was made up of healthy shades of gray and that was that. Some fool of a Harley Street quack had once mentioned an imaginary malady which he termed "color blindness" but had desisted with his tomfoolery when Harpplayer had mentioned the choice of seconds.

"Green, pink or purple, I don't care what shade of gray the fellow is. Throw him a line and have him up here where we can hear his story."

The line was dropped and after securing it to a ring on his boat the stranger touched a lever that closed the glass cabin once more, then climbed easily to the deck above.

"Green fur . . ." Shrub said, then clamped his mouth shut under Harpplayer's fierce glare.

"Enough of that, Mr. Shrub. He's a foreigner and we will treat him with respect, at least until we find out what class he is from. He is a bit hairy, I admit, but certain races in the north of the Nipponese Isles are that way, perhaps he comes from there. I bid you welcome, sir," he said addressing the man. "I am Captain Honario Harpplayer, commander of His Majesty's ship, *Redundant*."

"*Kwl-kkle-wrrl-kl . . . I*"

"Not French," Harpplayer muttered, "nor Latin nor Greek I warrant. Perhaps one of those barbaric Baltic tongues, I'll try him on German. *Ich rate Ihnen, Reiseschecks mitzunehmen?* Or an Italian dialect? *E proibito; però qui si vendono cartoline ricordo.*"

The stranger responded by springing up and down excitedly, then pointing to the sun, making circular motions around his head, pointing to the clouds, making falling motions with his hands, and shrilly shouting "*M'ku, m'kul*"

"Feller's barmy," the Marine officer said, "and besides, he got too many fingers."

"I can count to seven without your help," Shrub told him angrily, "I think he's trying to tell us it's going to rain."

"He may be a meteorologist in his own land," Harpplayer said safely, "but here he is just another alien."

The officers nodded agreement, and this motion seemed to excite the stranger for he sprang forward shouting his unintelligible gibberish. The alert Marine guard caught him in the back of the head with the butt of his Tower musket and the hairy man fell to the deck.

"Tried to attack you, Captain," the Marine officer said. "Shall we keelhaul him, sir?"

"No, poor chap is a long way from home, may be worried. We must allow for the language barrier. Just read him the Articles of War and impress him into the service. We're short of hands after that last encounter."

"You are of a very forgiving nature, sir, and an example for us all. What shall we do with his ship?"

"I'll examine it. There may be some principle of operation here that would be of interest to Whitehall. Drop a ladder. I'll have a look myself."

After some fumbling Harpplayer found the lever that moved the glass cabin, and when it slid aside he dropped into the cockpit that it covered. A comfortable divan faced a board covered with a strange collection of handles, buttons and divers machines concealed beneath crystal covers. It was a perfect example of the decadence of the East, excessive decoration and ornamentation where a panel of good English oak would have done as well, and a simple pivoted bar to carry the instructions to the slaves that rowed the boat. Or perhaps there was an animal concealed behind the panel, he heard a deep roar when he touched a certain lever. This evidently signaled the galley slave—or animal—to begin his labors, since the little craft was now rushing through the water at a good pace. Spray was slapping into the cockpit so Harpplayer closed the cover, which was a good thing. Another button must have tilted a concealed rudder because the boat suddenly plunged its nose down and sank, the water rising up until it washed over the top of the glass. Luckily, the craft was stoutly made and did not leak, and another button caused the boat to surface again.

It was at that instant that Harpplayer had the idea. He sat as

one paralyzed, while his rapid thoughts ran through the possibilities. Yes, it might work—it *would* work! He smacked his fist into his open palm and only then realized that the tiny craft had turned while he had been thinking and was about to ram into the *Redundant*, whose rail was lined with frighten-eyed faces. With a skillful touch he signaled the animal (or slave) to stop and there was only the slightest bump as the vessels touched.

"Mr. Shrub," he called.

"Sir?"

"I want a hammer, six nails, six kegs of gunpowder each with a two minute fuse and a looped rope attached, and a dark lantern."

"But, sir—what for?" For once the startled Shrub forgot himself enough to question his captain.

The plan had so cheered Harpplayer that he took no unbrage at this sudden familiarity. In fact he even smiled into his cuff, the expression hidden by the failing light.

"Why—six barrels because there are six ships," he said with unaccustomed coyness. "Now, carry on."

The gunner and his mates quickly completed their task and the barrels were lowered in a sling. They completely filled the tiny cockpit, barely leaving room for Harpplayer to sit. In fact there was no room for the hammer and he had to hold it between his teeth.

"Mither Thrub," he said indistinctly around the hammer, suddenly depressed as he realized that in a few moments he would be pitting his own frail body against the hordes of the usurper who cracked the whip over a continent of oppressed slaves. He quailed at his temerity at thus facing the Tyrant of Europe, then quailed before his own disgust at his frailty. The men must never know that he had these thoughts, that he was the weakest of them. "Mr. Shrub," he called again, and there was no sound of his feelings in his voice. "If I do not return by dawn you are in command of this ship and will make a full report. Good-by. In triplicate, mind."

"Oh, sir—" Shrub began, but his words were cut off as the glass

cover sprang shut and the tiny craft hurled itself against all the power of a continent.

Afterward Harpplayer was to laugh at his first weakness. Truly, the escapade was as simple as strolling down Fleet Street on a Sunday morning. The foreign ship sank beneath the surface and slipped past the batteries on Cape Pietfieux, that the English sailors called Cape Pitfix, and into the guarded waters of Cienfique. No guard noticed the slight roiling of the waters of the bay and no human eye saw the dim shape that surfaced next to the high wooden wall that was the hull of the French ship of the line. Two sharp blows of the hammer secured the first keg of gunpowder and a brief flash of light came from the dark lantern as the fuse was lit. Before the puzzled sentries on the deck above could reach the rail the mysterious visitor was gone, and they could not see the telltale fuse sputtering away, concealed by the barrel of death that it crept slowly toward. Five times Harpplayer repeated this simple, yet deadly, activity, and as he was driving the last nail there was a muffled explosion from the first ship. Hutment closed, he made his way from the harbor, and behind him six ships, the pride of the Tyrant's navy, burnt in pillars of flame until all that was left was the charred hulls, settling to the ocean floor.

Captain Harpplayer opened the glass hutment when he was past the shore batteries, and looked back with satisfaction at the burning ships. He had done his duty and his small part toward ending this awful war that had devastated a continent and would, in the course of a few years, kill so many of the finest Frenchmen that the height of the entire French race would be reduced by an average of more than five inches. The last pyre died down and, feeling a twinge of regret, since they had been fine ships, though in fief to the Madman in Paris, he turned the bow of his craft toward the *Redundant*.

It was dawn when he reached the ship, and exhaustion tugged at him. He grabbed the ladder lowered for him and painfully climbed to the deck. The drums whirled and the sideboys saluted; the bos'uns' pipes trilled.

"Well done, sir, or well done," Shrub exclaimed, rushing for-

ward to take his hand. "We could see them burning from here."

Behind them, in the water, there was a deep burbling, like the water running from the tub when the plug is pulled, and Harpplayer turned just in time to see the strange craft sinking into the sea and vanishing from sight.

"Damn silly of me," he muttered. "Forgot to close the hatch. Running quite a sea, must have washed in."

His ruminations were sharply cut through by a sudden scream. He turned just in time to see the hairy stranger run to the rail and stare, horrified, at the vanishing craft. Then the man, obviously bereaved, screamed horribly and tore great handfuls of hair from his head, a relatively easy task since he had so much. Then, before anyone could think to stop him, he had mounted to the rail and plunged headfirst into the sea. He sank like a rock, and either could not swim, or did not want to; he seemed strangely attached to his craft, since he did not return to the surface.

"Poor chap," Harpplayer said with the compassion of a sensitive man, "to be alone, and so far from home. Perhaps he is happier dead."

"Aye, perhaps," the stolid Shrub muttered, "but he had the makings of a good topman in him, sir. Could run right out on the spars he could, held on very well he did, what with those long toenails of his that bit right into the wood. Had another toe in his heel that helped him hold on."

"I'll ask you not to discuss the deformities of the dead. We'll list him in the report as Lost Overboard. What was his name?"

"Wouldn't tell us, sir, but we carry him in the books as Mr. Green."

"Fair enough. Though foreign-born, he would be proud to know that he died bearing a good English name." Then, curtly dismissing the faithful and stupid Shrub, Harpplayer resumed walking the quarterdeck, filled with the silent agony which was his and his alone, and would be until the guns of the Corsican Ogre were spiked forever.

## Notes

Although humor has long been a factor in science fiction, as when Robert W. Chambers satirized the idea of choosing marriage partners by computer in *The Green Mouse* (1910), seldom have its writers attempted parody. The basic reason may lie in the essential high seriousness of the genre, involved as it has been in social criticism and heroic adventure. Harry Harrison succeeds in "Captain Honario Harpplayer, R.N." by fusing together three elements which by themselves might not be capable of sustaining humor. He relies upon our familiarity with one of the most widely known heroes of popular fiction, C. S. Forester's Horatio Hornblower; our knowledge, alluded to in passing even by Forester, of the brutality of the British naval system at the turn of the nineteenth century; and at least our acquaintance with the concept of the encounter between Earthman and an intelligent alien race. The result is an exercise in absurdity.

In early science fiction, the space-opera especially, the alien took the place of the Indian or the Yellow Horde ("the only good blob is a dead blob") and, unfortunately, has retained that villainous role, by and large, in the sf film. In 1931 in *Writer's Digest*, one Captain S. P. Meek, apparently a pseudonym, advised would-be writers of the "pseudo-scientific story" that aliens "need not resemble humans," but that "hordes" of such "monsters" should be available to pursue a girl, thus introducing the possibility of a "thread of romance" into the stories. In contrast, for at least the past quarter century—Murray Leinster's "First Contact" (1945) may be judged the turning point—the alien has fared much better. In "Far Centaurus" van Vogt's protagonist acknowledges the intellectual "thrill" of such a meeting, while Arthur C. Clarke has suggested that it may bring an end to man's cosmic loneliness. One recalls, too, that at the opening of his *Childhood's End* (1953), in the midst of a crisis threatening war, aliens intervene to bring stability to Earth. Other examples might be cited. Robert Plank has written of the psychological need of humanity to believe in imaginary beings, naming the alien, usually superior to man, as the most recent expression of that need. In short, in science fiction the encounter with the alien has been idealized; indeed, in recent years he has more often been in the right than has humanity. This tendency seems to explain why Harrison turns to the past instead of the future. He must establish a familiar context in which to ask, with



Jack London, *what if* an alien spaceship landed near London, New York, Paris—amid civilization?

But there must be no ambiguity to his answer. Thus, the combination of Captain Honario Harpplayer and "Mr. Green" achieves several things that might otherwise be difficult to attain succinctly. First, the deflation of Harpplayer reinforces the portrait of the alien and emphasizes how literature idealizes its subject matter at the cost of divorcing it from reality. Secondly, as complementary figures, they give memorable form to his central theme.

To accomplish his ends, he creates the H.M.S. *Redundant* as an embodiment of the British establishment of its period. Its choice seems dictated by the desirability to show the society at a time of crisis and to capture something from the past which retains at least a portion of its heroic (romantic) stature in the minds of his audience. One feels that were he to thumb through the Hornblower stories, he would find specific scenes that Harrison has distorted; erroneous, of course, but he does assign Hornblower's essential poses and attitudes to his own bumbling Captain of the Line, echoing many of Forester's phrases. In undercutting him and the *Redundant*—perhaps at times a trifle heavily-handedly—Harrison lays bare a harsh, unimaginative man obsessed by his personal duel with the "Frenchies," whatever its cost, and blind to all that is not British, dismissing anything that he does not understand or anything that does not fit his concept of the proper order of things as "foreign"—"alien." (Surely the nicest touch of the story is either Harpplayer's color blindness or his insistence that the crew not "discuss the deformities of the dead.") He sees, but sees not. Such is civilization's ambassador at the moment of first contact.

Enter the alien, bewildered and unable to communicate, to be given a preconceived place in the known—or imagined—order of things and to be "impressed" as a "good topman." Yet there is a terrible logic behind the outcome; what else can one expect from an unimaginative, honorable Captain of the Line, who is unacquainted with, and whose society has not yet passed through the Industrial Revolution? Harpplayer's use of the spaceship to raid the French harbor, as well as his concept of its workings, confirms that logic. In this manner does Harrison fuse form and theme to denounce man's narrowness of vision and his obsession with war. In so doing, he modifies London's question: what can one expect of man at the first encounter with alien intelligence?



## DRIFTGLASS

Samuel R. Delany

(1967)

### I

Sometimes I go down to the port, splashing sand with my stiff foot at the end of my stiff leg locked in my stiff hip, with the useless arm a-swinging, to get wet all over again, drink in the dives with cronies ashore, feeling old, broken, sorry for myself, laughing louder and louder. The third of my face that was burned away in the accident was patched with skin grafts from my chest, so what's left of my mouth distorts all loud sounds; sloppy sartorial reconstruction. Also I have a hairy chest. Chest hair does not look like beard hair, and it grows all up under my right eye. And: my beard is red, my chest hair brown, while the thatch curling down over neck and ears is sun-streaked to white here, darkened to bronze there, 'midst general blondness.

By reason of my being a walking (I suppose my gait could be called headlong limping) horror show, plus a general inclination to sulk, I spend most of the time up in the wood and glass and aluminum house on the surf-sloughed point that the Aquatic Corp ceded me along with my pension. Rugs from Turkey there, copper pots, my tenor recorder which I can no longer play, and my books.

But sometimes, when the gold fog blurs the morning, I go down to the beach and tromp barefoot in the wet edging of the sea, searching for driftglass.

It was foggy that morning, and the sun across the water moiled the mists like a brass ladle. I lurched to the top of the rocks,

looked down through the tall grasses into the frothing inlet where she lay, and blinked.

She sat up, long gills closing down her neck and the secondary slits along her back just visible at their tips because of much hair, wet and curling copper, falling there. She saw me. "What are you doing here, huh?" She narrowed blue eyes.

"Looking for driftglass."

"What?"

"There's a piece." I pointed near her and came down the rocks like a crab with one stiff leg.

"Where?" She turned over, half in, half out of the water, the webs of her fingers cupping nodules of black stone.

While the water made cold overtures between my toes, I picked up the milky fragment by her elbow where she wasn't looking. She jumped, because she obviously had thought it was somewhere else.

"See?"

"What . . . what is it?" She raised her cool hand to mine. For a moment the light through the milky gem and the pale film of my own webs pearly the screen of her palms. (Details like that. Yes, they are the important things, the points from which we suspend later pain.) A moment later wet fingers closed to the back of mine.

"Driftglass," I said. "You know all the Coca-Cola bottles and cut-crystal punch bowls and industrial silicon slag that goes into the sea?"

"I know the Coca-Cola bottles."

"They break, and the tide pulls the pieces back and forth over the sandy bottom, wearing the edges, changing their shape. Sometimes chemicals in the glass react with chemicals in the ocean to change the color. Sometimes veins work their way through in patterns like snowflakes, regular and geometric; others, irregular and angled like coral. When the pieces dry, they're milky. Put them in water and they become transparent again."

"Ohhh!" She breathed as the beauty of the blunted triangular

fragment in my palm assailed her like perfume. Then she looked at my face, blinking the third, aqueous-filled lid that we use as a correction lens for underwater vision.

She watched the ruin calmly.

Then her hand went to my foot where the webs had been torn back in the accident. She began to take in who I was. I looked for horror, but saw only a little sadness.

The insignia on her buckle—her stomach was making little jerks the way you always do during the first few minutes when you go from breathing water to air—told me she was a Biological Technician. (Back up at the house there was a similar uniform of simulated scales folded in the bottom drawer of the dresser and the belt insignia said Depth Gauger.) I was wearing some very frayed jeans and a red cotton shirt with no buttons.

She reached for my neck, pushed my collar back from my shoulders and touched the tender slits of my gills, outlining them with cool fingers. "Who are you?" Finally.

"Cal Svenson."

She slid back down in the water. "You're the one who had the terrible . . . but that was years ago! They still talk about it, down . . ." She stopped.

As the sea softens the surface of a piece of glass, so it blurs the souls and sensibilities of the people who toil beneath her. And according to the last report of the Marine Reclamation Division there are to date seven hundred and fifty thousand who have been given gills and webs and sent under the foam where there are no storms, up and down the American coast.

"You live on shore? I mean around here? But so long ago . . ."

"How old are you?"

"Sixteen."

"I was two years older than you when the accident happened."

"You were eighteen?"

"I'm twice that now. Which means it happened almost twenty years ago. It is a long time."

"They still talk about it."

"I've almost forgotten," I said. "I really have. Say, do you play the recorder?"

"I used to."

"Good! Come up to my place and look at my tenor recorder. And I'll make some tea. Perhaps you can stay for lunch—"

"I have to report back to Marine Headquarters by three. Tork is going over the briefing to lay the cable for the big dive, with Jonni and the crew." She paused, smiled. "But I can catch the undertow and be there in half an hour if I leave by two thirty."

On the walk up I learned her name was Ariel. She thought the patio was charming, and the mosaic evoked, "Oh, look!" and "Did you do this yourself?" a half-dozen times. (I had done it, in the first lonely years.) She picked out the squid and the whale in battle, the wounded shark and the diver. She told me she didn't get time to read much, but she was impressed by all the books. She listened to me reminisce. She talked a lot to me about her work, husbanding the deep-down creatures they were scaring up. Then she sat on the kitchen stool, playing a Lukas Foss serenade on my recorder, while I put rock salt in the bottom of the broiler tray for two dozen Oysters Rockefeller, and the tea water whistled. I'm a comparatively lonely guy. I like being followed by beautiful young girls.

## II

"Hey, Juao!" I bawled across the jetty.

He nodded to me from the center of his nets, sun glistening on polished shoulders, sun lost in rough hair. I walked across to where he sat, sewing like a spider. He pulled another section up over his horny toes, then grinned at me with his mosaic smile: gold, white, black gap below, crooked yellow; white, gold, white. Shoving my bad leg in front, I squatted.

"I fished out over the coral where you told me." He filled his cheek with his tongue and nodded. "You come up to the house for a drink, eh?"

"Fine."

"Just—a moment more."

There's a certain sort of Brazilian you find along the shore in the fishing villages, old yet ageless. See one of their men and you think he could be fifty, he could be sixty—will probably look the same when he's eighty-five. Such was Juao. We once figured it out. He's seven hours older than I am.

We became friends some time before the accident when I got tangled in his nets working high lines in the Vorea Current. A lot of guys would have taken their knife and hacked their way out of the situation, ruining fifty-five, sixty dollars' worth of nets. That's an average fisherman's monthly income down here. But I surfaced and sat around in his boat while we untied me. Then we came in and got plastered. Since I cost him a day's fishing, I've been giving him hints on where to fish ever since. He buys me drinks when I come up with something.

This has been going on for twenty years. During that time my life has been smashed up and land-bound. In the same time Juao has married off his five sisters, got married himself and has two children. (Oh, those *bolitos* and *teneros asados* that Amalia of the oiled braid and laughing breasts would make for Sunday dinner/supper/Monday breakfast.) I rode with them in the ambulance copter all the way into Brasilia; in the hospital hall Juao and I stood together, both still barefoot, he tattered with fish scales in his hair, me just tattered, and I held him while he cried and I tried to explain to him how a world that could take a pubescent child and with a week of operations make an amphibious creature that can exist for a month on either side of the sea's foam-fraught surface could still be helpless before certain general endocrine cancers coupled with massive renal deterioration. Juao and I returned to the village alone, by bus, three days before our birthday—back when I was twenty-three and Juao was twenty-three and seven hours old.

"This morning," Juao said. (The shuttle danced in the web at the end of the orange line.) "I got a letter for you to read me. It's about the children. Come on, we go up and drink." The shut-

tle paused, backtracked twice, and he yanked the knot tight. We walked along the port toward the square. "Do you think the letter says that the children are accepted?"

"If it's from the Aquatic Corp. They just send postcards when they reject someone. The question is, how do *you* feel about it?"

"You are a good man. If they grow up like you, then it will be fine."

"But you're still worried." I'd been prodding Juao to get the kids into the International Aquatic Corp nigh on since I became their godfather. The operations had to be performed near puberty. It would mean much time away from the village during their training period—and they might eventually be stationed in any ocean in the world. But two motherless children had not been easy on Juao or his sisters. The Corp would mean education, travel, interesting work, the things that make up one kind of good life. They wouldn't look twice their age when they were thirty-five; and not too many amphimen look like me.

"Worry is part of life. But the work is dangerous. Did you know there is an amphiman going to try and lay cable down in the Slash?"

I frowned. "Again?"

"Yes. And that is what you tried to do when the sea broke you to pieces and burned the parts, eh?"

"Must you be so damned picturesque?" I asked. "Who's going to beard the lion this time?"

"A young amphiman named Tork. They speak of him down at the docks as a brave man."

"Why the hell are they still trying to lay the cable there? They've gotten by this long without a line through the Slash."

"Because of the fish," Juao said. "You told me why twenty years ago. The fish are still there, and we fishermen who cannot live below are still here. If the children go for the operations, then there will be less fishermen. But today . . ." He shrugged. "They must either lay the line across the fish paths or down in the Slash." Juao shook his head.

Funny things, the great power cables the Aquatic Corp has



been strewing across the ocean floor to bring power to their undersea mines and farms, to run their oil wells—and how many flaming wells have I capped down there—for their herds of whale, and chemical distillation plants. They carry two-hundred-sixty-cycle current. Over certain sections of the ocean floor, or in sections of the water with certain mineral contents, this sets up inductance in the water itself which sometimes—and you will probably get a Nobel prize if you can detail exactly why it isn't always—drive the fish away over areas up to twenty-five and thirty miles, unless the lines are laid in the bottom of those canyons that delve into the ocean floor.

"This Tork thinks of the fishermen. He is a good man too."

I raised my eyebrows—the one that's left, anyway—and tried to remember what my little Undine had said about him that morning. And remembered not much.

"I wish him luck," I said.

"What do you feel about this young man going down into the coral-rimmed jaws to the Slash?"

I thought for a moment. "I think I hate him."

Juao looked up.

"He is an image in a mirror where I look and am forced to regard what I was," I went on. "I envy him the chance to succeed where I failed, and I can come on just as quaint as you can. I hope he makes it."

Juao twisted his shoulders in a complicated shrug (once I could do that) which is coastal Brazilian for, "I didn't know things had progressed to that point, but seeing that they have, there is little to be done."

"The sea is that sort of mirror," I said.

"Yes." Juao nodded.

Behind us I heard the slapping of sandals on concrete. I turned in time to catch my goddaughter in my good arm. My godson had grabbed hold of the bad one and was swinging on it.

"Tio Cal—?"

"Hey, Tio Cal, what did you bring us?"

"You will pull him over," Juao reprimanded them. "Let go."

And, bless them, they ignored their father.

"What did you bring us?"

"What did you bring us, Tio Cal?"

"If you let me, I'll show you." So they stepped back, dark-eyed and quivering. I watched Juao watching: brown pupils on ivory balls, and in the left eye a vein had broken in a jagged smear. He was loving his children, who would soon be as alien to him as the fish he netted. He was also looking at the terrible thing that was me and wondering what would come to his own spawn. And he was watching the world turn and grow older, clocked by the waves, reflected in that mirror.

It's impossible for me to see what the population explosion and the budding colonies on Luna and Mars and the flowering beneath the ocean really look like from the disrupted cultural melange of a coastal fishing town. But I come closer than many others, and I know what I don't understand.

I pushed around in my pocket and fetched out the milky fragment I had brought from the beach. "Here. Do you like this one?" And they bent above my webbed and alien fingers.

In the supermarket, which is the biggest building in the village, Juao bought a lot of cake mixes. "That moist, delicate texture," whispered the box when you lifted it from the shelf, "with that deep flavor, deeper than chocolate!"

I'd just read an article about the new vocal packaging in a U.S. magazine that had gotten down last week, so I was prepared and stayed in the fresh vegetable section to avoid temptation. Then we went up to Juao's house. The letter proved to be what I'd expected. The kids had to take the bus into Brasilia tomorrow. My godchildren were on their way to becoming fish.

We sat on the front steps and drank and watched the donkeys and the motorbikes and the men in baggy trousers, the women in yellow scarves and bright skirts with wreaths of garlic and sacks of onions. As well, a few people glittered by in the green scales of amphimen uniforms.

Finally Juao got tired and went in to take a nap. Most of my

life has been spent on the coast of countries accustomed to siestas, but those first formative ten were passed on a Danish collective farm and the idea never really took. So I stepped over my god-daughter, who had fallen asleep on her fists on the bottom step, and walked back through the town toward the beach.

## III

At midnight Ariel came out of the sea, climbed the rocks, and clicked her nails against my glass wall so the droplets ran, pearled by the gibbous moon.

Earlier I had stretched in front of the fireplace on the sheep-skin throw to read, then dozed off. The conscientious timer had asked me if there was anything I wanted, and getting no answer had turned off the Dvorak *Cello Concerto* that was on its second time around, extinguished the reading lamp, and stopped dropping logs onto the flame so that now, as I woke, the grate was carpeted with coals.

She clicked again, and I raised my head from the cushion. The green uniform, her amber hair—all color was lost under the silver light outside. I lurched across the rug, touched the button, and the glass slid into the floor. The breeze came to my face, as the barrier fell.

"What do you want?" I asked. "What time is it, anyway?"

"Tork is on the beach, waiting for you."

The night was warm but windy. Below the rocks silver flakes chased each other in to shore. The tide lay full.

I rubbed my face. "The new boss man? Why didn't you bring him up to the house? What does he want to see me about?"

She touched my arm. "Come. They are all down on the beach."

"Who all?"

"Tork and the others."

She led me across the patio and to the path that wound to the sand. The sea roared in the moonlight. Down the beach people

stood around a driftwood fire that whipped the night. Ariel walked beside me.

Two of the fishermen from town were crowding each other on the bottom of an overturned washtub, playing guitars. The singing, raucous and rhythmic, jarred across the paled sand. Shark's teeth shook on the necklace of an old woman dancing. Others were sitting on an overturned dinghy, eating.

Over one part of the fire on a skillet two feet across, oil frothed through pink islands of shrimp. One woman ladled them in, another ladled them out.

"Tio Cal"

"Look, Tio Cal is here!"

"Hey, what are you two doing up?" I asked. "Shouldn't you be home in bed?"

"Poppa Juao said we could come. He'll be here, too, soon."

I turned to Ariel. "Why are they all gathering?"

"Because of the laying of the cable tomorrow at dawn."

Someone was running up the beach, waving a bottle in each hand.

"They didn't want to tell you about the party. They thought that it might hurt your pride."

"My what . . . ?"

"If you knew they were making so big a thing of the job you had failed at—"

"But—"

"—and that had hurt you so in failure. They did not want you to be sad. But Tork wants to see you. I said you would not be sad. So I went to bring you down from the rocks."

"Thanks, I guess."

"Tio Cal?"

But the voice was bigger and deeper than a child's.

He sat on a log back from the fire, eating a sweet potato. The flame flickered on his dark cheekbones, in his hair, wet and black. He stood, came to me, held up his hand. I held up mine and we slapped palms. "Good." He was smiling. "Ariel told me you would come. I will lay the power line down through the Slash to-

morrow." His uniform scales glittered down his arms. He was very strong. But standing still, he still moved. The light on the cloth told me that. "I . . ." He paused. I thought of a nervous, happy dancer. "I wanted to talk to you about the cable." I thought of an eagle, I thought of a shark. "And about the . . . accident. If you would."

"Sure," I said. "If there's anything I could tell you that would help."

"See, Tork," Ariel said. "I told you he would talk to you about it."

I could hear his breathing change. "It really doesn't bother you to talk about the accident?"

I shook my head and realized something about that voice. It was a boy's voice that could imitate a man's. Tork was not over nineteen.

"We're going fishing soon," Tork told me. "Will you come?"

"If I'm not in the way."

A bottle went from the woman at the shrimp crate to one of the guitarists, down to Ariel, to me, then to Tork. (The liquor, made in a cave seven miles inland, was almost rum. The too tight skin across the left side of my mouth makes the manful swig a little difficult to bring off. I got "rum" down my chin.)

He drank, wiped his mouth, passed the bottle on and put his hand on my shoulder. "Come down to the water."

We walked away from the fire. Some of the fishermen stared after us. A few of the amphimen glanced, and glanced away.

"Do all the young people of the village call you Tio Cal?"

"No. Only my godchildren. Their father and I have been friends since I was your age."

"Oh, I thought perhaps it was a nickname. That's why I called you that."

We reached wet sand where orange light cavorted at our feet. The broken shell of a lifeboat rocked in moonlight. Tork sat down on the shell's rim. I sat beside him. The water splashed to our knees.

"There's no other place to lay the power cable?" I asked. "There is no other way to take it except through the Slash?"

"I was going to ask you what you thought of the whole business. But I guess I don't really have to." He shrugged and clapped his hands together a few times. "All the projects this side of the bay have grown huge and cry for power. The new operations tax the old lines unmercifully. There was a power failure last July in Cayine down the shelf below the twilight level. The whole village was without light for two days, and twelve amphimen died of overexposure to the cold currents coming up from the depths. If we laid the cables farther up, we chance disrupting our own fishing operations as well as those of the fishermen on shore."

I nodded.

"Cal, what happened to you in the Slash?"

Eager, scared Tork. I was remembering now, not the accident, but the midnight before, pacing the beach, guts clamped with fists of fear and anticipation. Some of the Indians back where they make the liquor still send messages by tying knots in palm fibers. One could have spread my entrails then, or Tork's tonight, to read our respective horospecs.

Juao's mother knew the knot language, but he and his sisters never bothered to learn because they wanted to be modern, and, as children, still confused with modernity the new ignorances, lacking modern knowledge.

"When I was a boy," Tork said, "we would dare each other to walk the boards along the edge of the ferry slip. The sun would be hot and the boards would rock in the water, and if the boats were in and you fell down between the boats and the piling, you could get killed." He shook his head. "The crazy things kids will do. That was back when I was eight or nine, before I became a waterbaby."

"Where was it?"

Tork looked up. "Oh. Manila. I'm Filipino."

The sea licked our knees, and the gunwale sagged under us.

"What happened in the Slash?"

"There's a volcanic flaw near the base of the Slash."

"I know."

"And the sea is as sensitive down there as a fifty-year-old woman with a new hairdo. We had an avalanche. The cable broke. The sparks were so hot and bright they made gouts of foam fifty feet high on the surface, so they tell me."

"What caused the avalanche?"

I shrugged. "It could have been just a goddamned coincidence. There are rock falls down there all the time. It could have been the noise from the machines—though we masked them pretty well. It could have been something to do with the inductance from the smaller cables for the machines. Or maybe somebody just kicked out the wrong stone that was holding everything up."

One webbed hand became a fist, sank into the other, and hung. Calling, "Call"

I looked up. Juao, pants rolled to his knees, shirt sailing in the sea wind, stood in the weave of white water. The wind lifted Tork's hair from his neck; and the fire roared on the beach.

Tork looked up too.

"They're getting ready to catch a big fish!" Juao called.

Men were already pushing their boats out. Tork clapped my shoulder. "Come, Cal. We fish now." We waded back to the shore.

Juao caught me as I reached dry sand. "You ride in my boat, Cal!"

Someone came with the acrid flares that hissed; the water slapped around the bottom of the boats as we wobbled into the swell.

Juao vaulted in and took up the oars. Around us green amphimen walked into the sea, struck forward, and were gone.

Juao pulled, leaned, pulled. The moonlight slid down his arms. The fire diminished on the beach.

Then among the boats, there was a splash, an explosion, and the red flare bloomed in the sky: the amphimen had sighted a big fish.

The flare hovered, pulsed once, twice, three times, four times

(twenty, forty, sixty, eighty stone they estimated its weight to be), then fell.

Suddenly I shrugged out of my shirt, pulled at my belt buckle. "I'm going over the side, Juao!"

He leaned, he pulled, he leaned. "Take the rope."

"Yeah. Sure." It was tied to the back of the boat. I made a loop in the other end, slipped it around my shoulder. I swung my bad leg over the side, flung myself on the black water—

—mother-of-pearl shattered over me. That was the moon, blocked by the shadow of Juao's boat ten feet overhead. I turned below the rippling wounds Juao's oars made stroking the sea.

One hand and one foot with torn webs, I rolled over and looked down. The rope snaked to its end, and I felt Juao's strokes pulling me through the water.

They fanned below with underwater flares. Light undulated on their backs and heels. They circled, they closed, like those deep-sea fish who carry their own illumination. I saw the prey, glistening as it neared a flare.

You chase a fish with one spear among you. And that spear would be Tork's tonight. The rest have ropes to bind him that go up to the fishermen's boats.

There was a sudden confusion of lights below. The spear had been shot!

The fish, long as a tall and short man together, rose through the ropes. He turned out to sea, trailing his pursuers. But others waited there, tried to loop him. Once I had flung those ropes, treated with tar and lime to dissolve the slime of the fish's body and hold to the beast. The looped ropes caught, and by the movement of the flares, I saw them jerked from their paths. The fish turned, rose again, this time toward me.

He pulled around when one line ran out (and somewhere on the surface the prow of a boat doffed deep) but turned back and came on.

Of a sudden, amphimen were flicking about me as the fray's center drifted by. Tork, his spear dug deep, forward and left of the marlin's dorsal, had hauled himself astride the beast.

The fish tried to shake him, then dropped his tail and rose



straight. Everybody started pulling toward the surface. I broke foam and grabbed Juao's gunwale.

Tork and the fish exploded up among the boats. They twisted in the air, in moonlight, in froth. The fish danced across the water on its tail, fell.

Juao stood up in the boat and shouted. The other fishermen shouted too, and somebody perched on the prow of a boat flung a rope and someone in the water caught it.

Then fish and Tork and me and a dozen amphimen all went underwater at once.

They dropped in a corona of bubbles. The fish struck the end of another line, and shook himself. Tork was thrown free, but he doubled back.

Then the lines began to haul the beast up again, quivering, whipping, quivering again.

Six lines from six boats had him. For one moment he was still in the submarine moonlight. I could see his wound tossing scarves of blood.

When he (and we) broke surface, he was thrashing again, near Juao's boat. I was holding onto the side when suddenly Tork, glistening, came out of the water beside me and went over into the dinghy.

"Here you go," he said, turning to kneel at the bobbing rim, and pulled me up while Juao leaned against the far side to keep balance.

Wet rope slopped on the prow. "Hey, Cal!" Tork laughed, grabbed it up, and began to haul.

The fish prised wave from white wave in the white water.

The boats came together. The amphimen had all climbed up. Ariel was across from us, holding a flare that drooled smoke down her arm. She peered by the hip of the fisherman who was standing in front of her.

Juao and Tork were hauling the rope. Behind them I was coiling it with one hand as it came back to me.

The fish came up and was flopped into Ariel's boat, tail out, head up, chewing air.

I had just finished pulling on my trousers when Tork fell down

on the seat behind me and grabbed me around the shoulders with his wet arms. "Look at our fish, Tio Call! Look!" He gasped air, laughing, his dark face diamonded beside the flares. "Look at our fish there, Call"

Juao, grinning white and gold, pulled us back in to shore. The fire, the singing, hands beating hands—and my godson had put pebbles in the empty rum bottles and was shaking them to the music—the guitars spiraled around us as we carried the fish up the sand and the men brought the spit.

"Watch it!" Tork said, grasping the pointed end of the great stick that was thicker than his wrist.

We turned the fish over.

"Here, Cal?"

He prodded two fingers into the white flesh six inches back from the bony lip.

"Fine."

Tork jammed the spit in.

We worked it through the body. By the time we carried it to the fire, they had brought more rum.

"Hey, Tork. Are you going to get some sleep before you go down in the morning?" I asked.

He shook his head. "Slept all afternoon." He pointed toward the roasting fish with his elbow. "That's my breakfast."

But when the dancing grew violent a few hours later, just before the fish was to come off the fire, and the kids were pushing the last of the sweet potatoes from the ashes with sticks, I walked back to the lifeboat shell we had sat on earlier. It was three quarters flooded.

Curled below still water, Tork slept, fist loose before his mouth, the gills at the back of his neck pulsing rhythmically. Only his shoulder and hip made islands in the floated boat.

"Where's Tork?" Ariel asked me at the fire. They were swinging up the sizzling fish.

"Taking a nap."

"Oh, he wanted to cut the fish!"

"He's got a lot of work coming up. Sure you want to wake him?"

"No, I'll let him sleep."

But Tork was coming up from the water, brushing his dripping hair back from his forehead.

He grinned at us, then went to carve. I remember him standing on the table, astraddle the meat, arm going up and down with the big knife (details, yes, those are the things you remember), stopping to hand down the portions, then hauling his arm back to cut again.

That night, with music and stomping on the sand and shouting back and forth over the fire, we made more noise than the sea.

#### IV

The eight-thirty bus was more or less on time.

"I don't think they want to go," Juao's sister said. She was accompanying the children to the Aquatic Corp Headquarters in Brasilia.

"They are just tired," Juao said. "They should not have stayed up so late last night. Get on the bus now. Say good-bye to Tio Cal."

"Good-bye."

"Good-bye."

Kids are never their most creative in that sort of situation. And I suspect that my godchildren may just have been suffering their first (or one of their first) hangovers. They had been very quiet all morning.

I bent down and gave them a clumsy hug. "When you come back on your first weekend off, I'll take you exploring down below at the point. You'll be able to gather your own coral now."

Juao's sister got teary, cuddled the children, cuddled me, Juao, then got on the bus.

Someone was shouting out the bus window for someone at the bus stop not to forget something. They trundled around the

square and then toward the highway. We walked back across the street where the café owners were putting out canvas chairs.

"I will miss them," he said, like a long-considered admission.

"You and me both." At the docks near the hydrofoil wharf where the submarine launches went out to the undersea cities, we saw a crowd. "I wonder if they had any trouble laying the—"

A woman screamed in the crowd. She pushed from the others, dropping eggs and onions. She began to pull her hair and shriek. (Remember the skillet of shrimp? She had been the woman laddling them out.) A few people moved to help her.

A clutch of men broke off and ran into a side street. I grabbed a running amphiman, who whirled to face me.

"What in hell is going on?"

For a moment his mouth worked on his words for all the trite world like a beached fish.

"From the explosion . . ." he began. "They just brought them back from the explosion at the Slash!"

I grabbed his other shoulder. "What happened?"

"About two hours ago. They were just a quarter of the way through, when the whole fault gave way. They had a goddamn underwater volcano for half an hour. They're still getting seismic disturbances."

Juao was running toward the launch. I pushed the guy away and limped after him, struck the crowd and jostled through calico, canvas, and green scales.

They were carrying the corpses out of the hatch of the submarine and laying them on a tarpaulin spread across the dock. They still return bodies to the countries of birth for the family to decide the method of burial. When the fault had given, the hot slag that had belched into the steaming sea was mostly molten silicon.

Three of the bodies were only slightly burned here and there; from their bloated faces (one still bled from the ear) I guessed they had died from sonic concussion. But several of the bodies were almost totally encased in dull, black glass.

"Tork—" I kept asking. "Is one of them Tork?"

It took me forty-five minutes, asking first the guys who were

carrying the bodies, then going into the launch and asking some guy with a clipboard, and then going back on the dock and into the office to find out that one of the more unrecognizable bodies, yes, was Tork.

Juao brought me a glass of buttermilk in a café on the square. He sat still a long time, then finally rubbed away his white moustache, released the chair rung with his toes, put his hands on his knees.

"What are you thinking about?"

"That it's time to go fix nets. Tomorrow morning I will fish." He regarded me a moment. "Where should I fish tomorrow, Cal?"

"Are you wondering about . . . well, sending the kids off today?"

He shrugged. "Fishermen from this village have drowned. Still it is a village of fishermen. Where should I fish?"

I finished my buttermilk. "The mineral content over the Slash should be high as the devil. Lots of algae will gather tonight. Lots of small fish down deep. Big fish hovering over."

He nodded. "Good. I will take the boat out there tomorrow."

We got up.

"See you, Juao."

I limped back to the beach.

v

The fog had unsheathed the sand by ten. I walked around, poking clumps of weeds with a stick, banging the same stick on my numb leg. When I lurched up to the top of the rocks, I stopped in the still grass. "Ariel?"

She was kneeling in the water, head down, red hair breaking over sealed gills. Her shoulders shook, stopped, shook again.

"Ariel?" I came down over the blistered stones.

She turned away to look at the ocean.

The attachments of children are so important and so brittle. "How long have you been sitting here?"

She looked at me now, the varied waters of her face stilled on drawn cheeks. And her face was exhausted. She shook her head.

Sixteen? Seventeen? Who was the psychologist, back in the seventies, who decided that "adolescents" were just physical and mental adults with no useful work? "You want to come up to the house?"

The head shaking got faster, then stopped.

After a while I said, "I guess they'll be sending Tork's body back to Manila."

"He didn't have a family," she explained. "He'll be buried here, at sea."

"Oh," I said.

And the rough volcanic glass, pulled across the ocean's sands, changing shape, dulling—

"You were—you liked Tork a lot, didn't you? You kids looked like you were pretty fond of each other."

"Yes. He was an awfully nice—" Then she caught my meaning and blinked. "No," she said. "Oh, no. I was—I was engaged to Jonni . . . the brown-haired boy from California? Did you meet him at the party last night? We're both from Los Angeles, but we only met down here. And now . . . they're sending his body back this evening." Her eyes got very wide, then closed.

"I'm sorry."

I'm a clumsy cripple, I step all over everybody's emotions. In that mirror I guess I'm too busy looking at what might have been.

"I'm sorry, Ariel."

She opened her eyes and began to look around her.

"Come on up to the house and have an avocado. I mean, they have avocados in now, not at the supermarket. But at the old town market on the other side. And they're better than any they grow in California."

She kept looking around.

"None of the amphimen get over there. It's a shame, because soon the market will probably close, and some of their fresh

foods are really great. Oil and vinegar is all you need on them." I leaned back on the rocks. "Or a cup of tea?"

"Okay." She remembered to smile. I know the poor kid didn't feel like it. "Thank you. I won't be able to stay long, though."

We walked back up the rocks toward the house, the sea on our left. Just as we reached the patio, she turned and looked back. "Cal?"

"Yes? What is it?"

"Those clouds over there, across the water. Those are the only ones in the sky. Are they from the eruption in the Slash?"

I squinted. "I think so. Come on inside."

## Notes

"Fiction makes models of reality."

"Consider: naturalistic fictions are parallel world stories in which the divergence from the real is too slight for historical verification."

". . . in all the *brouhaha* clinging about these unreal worlds, chords are sounded in total sympathy with the real."

"The vision (sense of wonder, if you will) that sf tries for seems to me very close to the vision of poetry, particularly poetry as it concerned the nineteenth-century Symbolists."

". . . whatever the inspiration or vision . . . the only way a writer can present it is by what he can make happen in the reader's mind between one word and another, by the way he can maneuver the existing tensions between words and objects."

These views—admittedly taken out of context—most of them from a paper given at the Modern Language Association Seminar on Science Fiction in 1968 and published first in *Extrapolation*—indicate why Samuel R. Delany asks no special favors for the genre. He asks, instead, that science fiction—speculative fiction, as he prefers to call it—be judged only in the terms that one judges any fiction. Repeatedly he has emphasized that the strength of sf lies in the breadth of freedom it gives a writer to summon up his images of the human experience. In his major critical essay, "Critical Methods: Speculative Fiction," cited in the Introduction and published in *Quark*, the quarterly magazine which he edited with Marilyn Hacker, he named four images that express the variant myths of the world—Arcadia, the Land of Flies,

Brave New World, and the New Jerusalem—and suggested that science fiction criticism examine “how all four mystic visions sit in concert in given books,” not praising or condemning a book because it does or does not “reflect any one.” This view has particular importance for the genre: it marks an end to the insistence that sf be an instrument of didacticism; it calls for both reader and writer to cease thinking of it in terms of ideology, whether utopian or dystopian. He asks, simply, that sf be effective fiction.

“Driftglass,” written in 1966 and published in 1967, precedes most of his critical writing, yet it illustrates how he worked his way toward his later position. Perhaps, however, what first attracts the reader’s attention is the way in which Delany has reversed his emphasis of conventional material. He has taken the principal action off stage and does not allow his protagonist to be the central actor—certainly not original with him—but more than this, his portrait of the future world differs. Generalizations are dangerous; nevertheless, except when a story has dwelt upon a reversion to barbarism, the body of science fiction has assumed an advanced technological society which has penetrated to and transformed the ends of the Earth. Most important, by and large it has focused upon that dominant society. True, Aldous Huxley’s *Brave New World*, for example, has its Reservation; Clifford Simak’s *City* has its mutants who retreat to the forests; and Ray Bradbury’s *Fahrenheit 451* has its learned recluses memorizing the great books of the world. Everyone can cite other examples. But even in these cases the narrative focuses upon the advanced society. The splinter groups, outsiders, underground people, misfits—one may call them what he will—have functioned in certain conventionalized ways: either as a group from which the protagonist emerges (thus resembling the small town which the youth leaves for the city in naturalistic fiction); as an asylum for the disenchanted protagonist; as the haven of those values the author holds dear; or as a convenient source of the rebels needed to overthrow the power structure of the advanced society. Uniformly, however, when given much attention, they serve as a means of judging the new society.

But Delany makes no judgment. Although the influence of Aquatic Corp. is everywhere felt, like the action it is pushed to the periphery of “Driftglass” in order to provide the context within which Delany can elaborate his chief interest. Through the voice of his narrator, he himself indicates what he is doing: “It’s impossible for me to see what the population explosion and the budding colonies on Luna and Mars and the flowering beneath the ocean really look like from the disrupted melange of a coastal fishing town.” Aquatic Corp. has brought



together people from the ends of the Earth, and it will give Juao's children "education, travel, interesting work, the things that make up one kind of good life," just as many contemporary jobs do; he creates a highly convincing future world because he shows that whatever advances may occur, it will be in a state of transition, just as present-day society is (and has been throughout modern times). His finest detail illustrating this situation is the "vocal packaging" of the cake mix. This emphasis permits him to weave a context of conventional sf materials but also facilitates his concentration upon the interplay of his characters.

His success, of course, rests with his narrator, Cal Svenson, whose voice gives the story its texture and tone, making everything important in terms of the individual, not the society. No other character is developed so fully because Delany isolates each of them, in turn, with Cal in order to bring out another phase of his reflections. The framing encounters with Ariel; the long, basically expository passage with Juao; the meeting with Tork, whose anxieties demand the approval of the older man: these take up the bulk of "Driftglass," but only the capture of the fish is actually a fully realized, dramatic scene. It is the heart of the story.

For Delany has followed his poetic impulse to explore his imagined world, and he does so through setting up a series of contrasting images. Experience ranges between Ariel (before she was identified, who briefly thought her a mermaid?) and Cal, whose initial description of himself identifies him with Caliban; thus, they frame "Driftglass." Other examples are innumerable: Cal sees Tork in a mirror image, acknowledging early his divided feelings toward the youth; Juao's children are beginning their careers as amphimen, while Cal's is long finished; two attempts are made to lay the cable through the Slash; the driftglass which Cal speaks of results from both industrial waste and the "rich volcanic glass" of the Slash. Yet as the sea smooths and dulls its driftglass, so memory smooths and dulls all experience into the fullness of human consciousness. Finally, of course, the fishing village and Aquatic Corp. work their sea-changes on one another. In Delany's future world Arcadia and Brave New World meet upon a Brazilian shore.



## STILL TRAJECTORIES

Brian W. Aldiss

(1967, 1969)

The jukebox played a number called "Low Point X." It was pub favorite the night that Speed Supervisor Jan Koninkrijk was forced to stay in the second-floor back room on his way home from Cologne. He looked out over small cluttered muttering roofs and heard the record, heard it again in his sleep, dreaming of speed and life's intermittent fulfillments as the melancholy tugboats hooted outside the hotel where the Meuse became the Maars.

The girl in the bar, so fair, good North Dutch stock in that dull south Dutch town, hair almost milk-colored, face so pale and sharp, interested in the sports end of the paper. The fountain sparkled.

She tried to be nice to me last night, to smile with warmth, Koninkrijk, speeding into Belgium, said to himself. I'm not interested much in stray women any more, but her life has a mystery. . . . The pathos, having to serve five per cent alcoholic drinks and watch night after night games of cards played always by the same men, listening to the tugs and "Low Point X." The numbskill acid famine snorting outside in the alleys. Was she signaling for help? I snooped on dialogues of the blood, Only silence there except for Low Point X Giving its coronary thud. . . . I'd better get back to Marta, no signals from her prison. A wife of shutters. Maybe this time she will be improved, so weary.

His Mercedes burned over the highway and hardly touched it, licking at one-sixty kilometers an hour along the autobahn from Cologne and Aachen through Brussels to Ostend and so

across to England. All now Arab-squirted. Piercing his mazed thoughts, Koninkrijk kept a sharp eye for madmen: the highway's crash record was bad—his switched-on cops called it Hotpants Highway since the days of the Acid Head War. But this overcast afternoon brought little opposition, so he plunged forward, whistled to himself, joy, boy, joy hoy jug-a-jig, hug a little pig, follow the band.

She would be slowing, fewer admirers, maybe one faithful one, coming to the bar every evening. Days paid out in hurried washing lines. Her good will under strain. She smiled and smiled and was a victim. If he pitied, he must still love. It was the possibilities she represented that he thirsted for. Her hand as she stretched out for his guilders. A fine line, ah, that marvelous mystery of the female, something so much finer than just sex. Streamlined. Her little nails like teeth. With an un-Dutch gesture, he had kissed her hand; they were alone; they had looked at each other, he not much the older. The room round them coloring. Had put ten cents in the jukebox for her to hear "Low Point X" again as he walked out. Just to please her.

Had he really looked at her? Had she ever really seen herself? Had she something to reveal, hidden and sweet, to the man who went seeking properly for it? But that was his old romantic idea. No one went seeking others any more; under the psychedelic rains, they mainlined only after themselves—and never hit true heights.

He lived at Aalter, just off the Highway, in a thin house. "My life is an art object," he said jokingly, heaving shoulders under shirt. There were the alternatives; his wife's presence, that girl's presence, his job, his possible new appointment in Cologne, his office, that mad Messiah in England; all were different nodes of his mind, all were substantiated by different nodes of the planetary surface; neither of which could be reached without the other; it was possible that one was the diagram of the other; all that was certain was that the linking medium was speed. It was the mixer, the mixen, cultural midden. Certainly there was speed, as the dial said, 175 kilometers, registering also in the coronary thud.

For some miles, Koninkrijk had been neglecting his thoughts as his eyes took in familiar territory, divesting itself of former naturalistic implications. He was beyond Brussels now, the sound of its cold kitchens. Here the enlargements to the Highway were on a grand scale. Two more lanes were being laid in either direction, thus doubling the previous number. But the new lanes were all twice the width of the previous ones, to allow for the fuzzy-set driving of speedsters under spell. Lips of senile earth had been piled back, cement towers erected; long low huts; immense credit boards with complicated foreign names; lamps, searchlights for night work; gigantic square things on wheels and tracks, yellow-bellied cranes; scaffolding, tips, mounds, ponds, mountains of gravel; old battered cars, new ones gaudy as Kandinskis and Kettels; mofettes like the fudged vents of corpses; and between everything chunky toy figures of men in striped scarlet luminescent work coats. Into the furrows he saw the new animal go. These men were creating the whole chaos only for speed, the new super fuzzy speed, the catagasm of snared minds.

He slowed at the Aalter turn. It was impossible to say how much he had been affected personally by the sprays, but Koninkrijk recognized that his viewpoint had altered since they fell, although he was working in France at the time of Arablitz; France had remained neutral and the old lie that Tenenti TV *protège les yeux*. Piedboeuf. He slowed as he began the long curve off, its direction confused by impedimenta of construction on either side. Aalter was already being eaten into under the road-widening scheme, the old Timmermans farmhouse obliterated, its fields gone, the footpath under trees destroyed.

The thin grim house occupied by the Koninkrijks was the only one left inhabited in the street, owing to the improvements. Seismological eruptions of the European psyche had thrown up a mass of agglomerate that half-buried nearby terraces. A bulldozer labored along the top of the ridge like a dung beetle, level with the old chimneys where smoke had once risen from a neighborly hearth. That was over now. There was no past or future, only the division between known and unknown, sweeping on, termi-

nator of a phantom Earth. The daffodils stood stiff in the Koninkrijk drive against just such a contingency, keeping the devouring detritus at bay, narcotic in their precision.

A thin rain, after moving across the North German Plain for hours, enveloped Aalter as Koninkrijk climbed from his Mercedes. The bellowing machines against my silent house so featureless and she in there, and the new animal with its wet eyes watching. He was not sure about the new animal; but he was slow now, on his feet and no longer stretched at speed, consequently vulnerable. Unpeeled. He bowed his head to the drizzle and made for the closed opaque glass porch. *She* would have no such refuge of privacy; only a back room behind the bar, all too accessible to the landlord when he rose at last, stale from his final cigar and five-per-center, to try and fumble from her person that missing combination of success he had failed to find in the hands of knockout whist. Marta, as the unknown crept closer, at least had privilege of her devious privacy.

Marta Koninkrijk awaited in this minute and all the other buried minutes a secret someone to crush her up into life; or so she hoped or feared. She sat away all the sterile hours of her husband's absence as if the bright spinning coin would never tarnish or the miser forget his hoard. Time never went by. The bombs had blessed her half into a long-threatened madness, though she was not so insane that she did not try to conceal from her husband how far she lived away from him among the ever-falling motes, or to conceal from herself how cherished was the perfection of immobility. She sat with her hands on her lap, sometimes reaching out with a finger to trace a hair-fine crack on the wall. Daring, this, for the day was nearing when the cracks would open and the forces of the earth pour in while the new machines rode triumphantly above the spouting chimney tops, bucking in like mnemonics of her deep-boring paralysis.

Koninkrijk had installed omnivision in the thin house for her. She could sit and comfort her barren self by leaving the outer world switched off while the inner world was switched on. From the living room, with its frail furniture, glistening surfaces, and

brilliant beveled-edge mirrors, she could watch intently the row of screens that showed the other rooms of the house; the screens extended her senses, always so etiolated, palely over the unfrequented mansion, giving her unwinking eyes in the upper corners of five other rooms. Faintly mauve and maureen, nothing moved in them all day except the stealthy play of light and shade trapped there; nothing made a sound, until the receptors picked up the buzz of an early fly, and then Marta leant forward, listening to it, puzzled to think of life assailing the fudged vents of her life. No bicycle wheel turns in the unpedaled mind. The omnivision itself made a faint noise like a fly, fainter than her breathing, conducted so tidily under her unmoving little bust. The stuffy rooms had their walls hung with gleaming mirrors of many shapes and pictures of small children in cornfields which she had brought here from her childhood; they could be viewed in the omnivision screens. Sometimes, she flicked a switch and spoke with a tremor into an empty room.

"Jan!" "Father!"

The rooms were full of incident from her immobile bastion in a wooden-armed chair. Nothing moved, but in the very immobility was the intensest vibration of life she knew, so intense that, like a girlhood delight, it must be kept covert. The very intensity almost betrayed the secrecy for, when the key intruded downstairs into the elaborate orifice of the lock, there appeared still to be a universe of time before he would appear at the stair top and discover that long-tranced inactivity of hers. Only after several millennia had passed and the radiations of undigested thought subsided somewhat, and the rasp of the key registered in each room's audio-receptor, did she steal quickly up, dodging the slender image of herself transfixed in every looking glass, and creep onto the landing to pull the lever in the toilet, assuring him of her activity, her normality, her earthy ordinariness. Into the lavatory bowl rattled a fall of earth. One day it would flood the house and blank out the last mauve image.

Always when he mounted the narrow stairs it was to this sound of rushing water. He put his wet one-piece neatly on its hook be-

fore he turned and embraced his wife, her fudged vents of concussion. Dry compressed inflexible orifices tangentially met. When he moved restlessly round the room, disrupting all the eons of stillness, the furniture shook; and from without, the obscene grunts of a dirt machine, pigging into clay layers. Life had lost all its loot, as they said.

"Any news?"

"I haven't been out. The machines. I didn't really feel . . ."

"You ought to get out."

"It's menacing. Even the daffodils . . ."

He crossed to the omnivision, switched over to Brussels. Momentary warming images. Bursting latticework, phantom case-ments. Some confused scenes as if settling into deep water, in some sort of a stadium. The cameraman could be on a perpetual trip judging by his random hand. Unlike Germany, here a government of sorts still held. Perhaps it was some kind of a beauty contest; girls in bikinis strutted, rakish of breast and mons, and many older women had turned up too—some at least in their seventies, flesh grouty and wrinkled, all foxed pudding. One of them was shouting, angry perhaps at getting no prize. Crowds in tight macks, looking all ways, and the stripped shots of a grandstand roof. A band played—not "Low Point X." He left it, looked at her, smiled, crossed to a narrow table and picked up the paper, neatly folded. The noise romping across her unwakened room.

"You haven't opened the paper."

"I didn't have time. Jan—"

"What?"

"Nothing. How was Aachen?"

"We've got this British saint, Charteris, coming through Aalter tomorrow, big crusade and fun you ought to take in."

"Who's he?"

"I'll have to be on duty early."

"Do you think he'll—you know—"

"He's a great man," spoken not looking up as he searched the muddled columns. Renewed piracy in the Adriatic. The Adrian-



tic. New ocean, unknown to pre-psychedelic man. Many such hideous discoveries made every day. Of what degree of reality? "A saint, at least."

On page four he found it, a brief mention. New Crusade. Thousands rallying to support new prophet of multicomplex event. From Loughborough in the heart of England's stormy industrial midlands may emerge new movement for washing at least ten times brighter smiled Mr. Voon and eventually embrace all of war-torn Europe says our London correspondent. Prophet of multicomplex event, soap powder with new secret psychotomimetic ingredient Yugoslav-born Colin Charteris is rallying take place in absolute darkness and Flemish observers agree that no thousands to his inspirational thinking. His first crusade motorcade through Europe is refrigerators at Ostend at four p.m. today and leaves tomorrow for what one commentator describes as several hundred incinerators automobiles pouring down here past Aalter at full speed, I'm bound to have more than one crash to deal with; better ring area squads now. Permanent alert from five tomorrow. Inform all hospital services too. Show eager. The tumbling bodies doing their impossible catagasms among ricochetting metals the dirty private things too beautifully ugly to be anything but a hoke. Oh in my loins oh Lord disperse do they have the orange-tip butterfly in England these killing years?

Both in their frail beds, a gulf of fifty-seven point oh nine centimeters between them. Darkness and the omnivision switched off but that connection nevertheless merely dormant: there would be another time when the currents would flow and the impulses re-establish that which ancestrally was where the glades of the forest stood like wallpaper all round in murmurous shade when the murderous mermaid pulls aside her jalousie and letting in the whispering brands of braided hair stretching to the closed clothed pillows. Koninkrijk he, suddenly rousing, felt the vibrations welling up through him. It was true, one was the diagram of the other, and nobody could decide which. Either vast machines were passing a hundred yards away on the arterial toad,

shaking the house minutely in its mortared darkness; or else accumulated fats and silts were building up in the arteries about his heart, stirring his whole anatomy with the premonitions of coronary thrombosis. If he woke Marta, he could presumably decide which was happening; yet even then there was the growing ambiguity about what a happening actually constituted. He could now recognize only areas in which the function vectors of events radiated either inward or outward, so that the old habit of being precise was misleading where not downright irrelevant. And he added to himself, before falling again into trembling sleep, that the Loughborough gospel of multicomplex was already spreading, ahead of its prophet, like disease outrunning its symptoms.

Angeline was crying in the arms of Charteris on the long damp dark beaches of Ostend, timescape all awash. The Escalation dirged by a dying fire: Her mother married a sunlit Ford Cortina. All the cars, most of them oparted, many stolen, clustered about the red Banshee along the promenade where Belgians loitered and sang, switched on by the rousing words of Charteris, goaded by music's grind.

Take pictures of yourselves, he had said, pictures every moment of the day. That's what you should do, that's what you do do. You drop them and they lie around and other people get into them and turn them into art. Every second take a picture and so you will see that the lives we lead consist of still moments and nothing but. There are many still moments, all different. Be awake but inward sleeping. You have all these alternatives. Think that way and you will discover still more. Cast out serpents. I am here but equally I am elsewhere. I don't need so much economy—it's the pot training of the child where the limitation starts. Forget it, live in all regions, part, split wide, be fuzzy, try all places at the same time, indecisivize time itself, shower out your photographs to the benefit of all. Make yourself a million and so you achieve a great still trajectory, not longwise in life but sideways,

a unilateral immortality. Try it, friends, try it with me, join me, join me in the great merry multicade!

All Angeline said after was, "But you aren't indestructible any more than I really saw a dog in a red tie that time."

He hugged her, half-hugged her, one arm round her while with the free hand he forked in beans to his mouth, at once feeding but not quite feeding as he said, "There's more than being just organical, like transliterated with the varied images all photopiled. You'll soon begin to see how fuzzy-set thinking abolishes the old subdivisions which Ouspenski calls functional defects in the receiving apparatus let go on too personal a closure. Be anti-breasted in a prefrontal sense. As I told the people, self-observation, the taking of soul photographs, brings self-change, developing the real I."

"Oh, stop it, Colin, you aren't fun to be with any more when you talk like that! How do you think I can hang on as I do, not without my own traits unappeased anyway. Did you or did you not kill my husband, besides, I don't see how you can get away with this multiple thing; I mean, some things are either/or, aren't they?"

With Angelina hanging crossly on his arm, he got up from the voluptuous sand and, moving to the water's edge surrounded by midnight followers, flung the bean tin into the Galilean dark.

"What things?"

"Well, either I'm going to have your child or I'm not, isn't that right. I suppose a pretty straight answer."

"Are you going to have a child?"

"I'm not sure."

"Then there's a third possibility." The chill thing flew to her.

Some of them had lights and ran clothed into the water to retrieve his tin, sacred floggable relic, unmindful of drowning, their beads floating about them. And the bean can moved over the face of the waters, out of reach, oiling up and down with orange teeth, beyond the Sabine music. Beyond that, the ambiguity of lunar decline and terrestrial rotation filtering into the dischance of blank night powder with new secret psychotomimetic ingredient.

A dirty boy there called Robbins, once been acclaimed a saint in Nottingham, ran into the water calling to Charteris "You are greater than me! You contain all cross references! So stop me drowning myself!"

Charteris stood by the margin of the sea ignoring Robbins as he floundered, reading momentarily the pinched timescapes of her countenance. Then he turned toward Ostend and said, "Friends, we must defy the great either/orness of the crass life that lived us like automata, howl like dogs if needed! Hunt! Hunt! Among the many futures scattled about like pebbles on this beach are a certain finite number of deaths and lives. Hunt them! I see us speeding into a great prongessional future which every blind moment is an eight-lane highway. Beside our catceleration rides splinternity, because the bone comes where the meat is sweetest. Hunt me, hunt the true me, the true you. Tomorrow, I precog that death will swallow me and throw me back to you again, and you will then see I have achieved the farther shore of either/orness. I will discard the dislocation!"

"A miracle!" cried the pop group and the hepos and motorcad-ers and all weirdies adjacent to the night. Angeline hugged him close, aware that he had to say nothing she could understand and still be wonderful. Near him was happening and the general stamnation broached. Behind them, clutching the holy relic of the bean tin, struggling and evacuating, Robbins went down into an unlit road beyond all terrestrial trajectory.

The promenade like a gray ridge of firm in early dawnlight, life, lootless.

Beyond the post-glacial shelf, where lights burned between night and day, stood derelict projects of hotels, petrified by the coming of French-built Arab aircraft; some half-made, blueprints in girder form, some half-demolished, all blank-eyed, broken-doored, with weeds in the foundations and leprous remains of human habitation. Here from their cattlepsy crawled the crusad-

ers, scratching themselves in the ambiguous morning and blowing acid breath.

Knee-deep in his groins, thin in his increasing thicket, cult-figure Colin Charteris the Simon Temple of himself makes his own mark in the graylight, emerging like a lion from his lair, his mange of hair all about him. Some of his larger jackals call a greeting, the Burtons, Featherstone-Haugh, little Gloria, thin dark Cass, Rubinstein with an early reefer glowing. The hero half-coughs in answer, scans craftily the stoned reigns of the beach, checks to see no great sweet jail trees sprang up there in the constabulary of the night, impoisoning them among writhing branches and the rough unshaven cyanightmarine light in a cell-out.

The old church in the Šumadija rags sweet hum of rotten fallen flesh and flowers and a buzzing bee where the old fellow on his last stone bed of all. Going with his so respected father and not a word spoken. The very scent of the grass and walls and a fine checker of stone. The prone face of shagged hair and gristle-vaulted nostril and his father lifting up a mottled hand detached from the slab. Words droning like a bee. The same sick false light in the cell. His own fear and comfort like key-in-lock and then the sick man heaving himself onto a spike of greaseflesh to reach—don't flinch Dušan!—and pat the budding coconut of Colin's mange of harum—

Angeline wondered if her period would not come again today and boiled coffee for her lord and master on a fold-up stove; she was uncertain whether or not she felt sick and, if she did feel sick, whether it was because she was pregnant or because she dreaded the prospect of another day's crazy part-automatic driving. Well, it was a fuzzy set world like her shaman said and she of and with it.

Some of them were already revving their cars or driving them over the ice rim onto the sand as being the quickest way to extricate from the muddle of beached beasts crouched like whales with beetle wings. Maintenance was going on to a limited extent,

mainly in the sphere of bits of rope tying on bits of machine. The sparky thing currently was to fill blown eggshells with paint and then stick them onto the bonnet with adhesive plaster; when you got moving, the paint peed out in crazy trickles or blew across the windscreen and roof of the automobile or, under sudden acceleration, the egg burst like a duff ventricle. Only Charteris's Banshee was unadorned by such whims. Like France, it was neutral. And Red.

"Where we going today, Col?"

"You know." In the background, flutes and gritars.

"Brussels?"

"Some name like that."

"Then where? Tomorrow? The day after, where?"

"That's it. You hit the mood exactly. The question marks the antidope for auto motion. More coffee there?"

"Drink the first lot, darling, then you get some more; didn't you learn any such thing when you were a boy? Didn't your father tell you? You know, this isn't a crusade—it's a migration! Animals not spirits, revolt of youth you make me laugh!"

The coffee ran down his chin, he was only half-drinking, as he nodded his head and said, "Sheer inspiration, yes! Crusade has only one object. What you think's deported but the old time? Migratory is more instinctive, more options open."

He expanded the theme as they climbed into the car, talking not only to her but to big mottled machine-face Banjo and other people who impinged, Burton now nagging for favors. The Serb had ceased to think what he was saying. It was the migratory converse; the result was that he astonished himself and this elation fed back into his system, rephotographed a thousand times, each time enlarged in a conflagration of sponging in idation or inundation of conflation, so that he could pursue more than one thought simultaneously down into its deep loughburrows, snooper-trooper fashion.

Burton was bellowing something at the top of his voice, but the engines drowned out what he said as they began to roll along the gray deserted front, away from littoral meanings, between echo-

ing shutters and sea. The new auto race, born and bred on motorways; on these great one-dimensional roads rolling they mobius-stripped themselves naked to all sensation, beaded, bearded, belted, busted, bepileptic, tearing across the synthetic twen-cen landskip, seaming all the way across Urp, Aish, Chine, leaving them under their roofer smoke, to the Archangels, godding it across the skidways in creasingack selleration bitch you'm in us all in catagusts of living.

Great flood of tatterdemalion vehicles in multicolor flooded out onto the Hotpants Highway, rushing, swerving, grinding, bumping, bucking, rupting, south toward Aalter and the infinite, traveling up to one-fifty photographs per minute, creasing axle aeration.

He lumbered up from the vast brown inaccessible other world of sleep and went hurriedly to shave. In the second bed, the wilting leaf of his wife still silent among her own shades.

As he looked at his motionless face, Koninkrijk thought of the good North Dutch girl back in the little hotel in Maastricht. Baby you won't get no sex Off of me in low point X. The last crash, driving with the cop fast to the scene of the accident maybe the same today my form of gratification just a vampire. It was a little Renault nose-deep in a cliff of lorry, as if snuggling there. The terrible anticipation as he jumped out of the still-moving car and ran toward it; in a year of life, maybe one moment of truth; in a hundred miles of speedtrack, this one node. The crossover roads like ganglia of an aborted space-time. A tractor driver hurrying forward, explaining in thick Flemish accident. I saw un I saw un, he swerve out to overtake me, this lorry pull up to let him by, see, this other chap don't pull up in time the first chap get clear away, ought to be a bloody law against it.

There is a law against it, out my way.

Voilà! All the luggage in the back of the car a jerry-built shrine tumbled forward over the shoulders of the driver. He wears no safety belt of harness, is utterly smashed, yet he lives and groans, seems to be begging for something in—German?

The ambulance arriving almost at once, hostile pedestrians also staring in through the now-public car windows. The uniformed men ease the crushed driver out bit by bit; the lorry driver and the tractor driver stand by, masking their helplessness with explanations and repeated phrases. He swerve out to overtake me. Koninkrijk with this dirty curiosity, recalling it again now obsessively with self-hate, mauls over the blood-gobbed contents of the car after the ambulance men have teased most of the victim clear.

His cold little distorted image of the man-run world held only this driving and crashing, nothing else; everything else led to climactic moments of driving and crashing, the sparky technological fulfillment offered by the first flint arrowhead, the schizophrenic clash of man's divided nature since he conjured good and bad out of meshing phenomena—to all that, crashung and drivung were the climax, a geared aggression beyond sexuality or indeed any moment's action.

The chemicals could merely mask basics.

Eating and defecating and the rest were just preparatory processes, getting the body tuned for the next cyborg down the roads. His wife-defective. Things other people did were just substitutes for speed death. Chinese peasants, groveling up to their kneecaps in paddy, longing for the day when they too could enjoy speed death. Congenitally deaf, hearing only engines.

He looked at his eyes in horror. His mind was sucked to the constant subject. Profession had become obsession. There would be another call today; he must get down to the station, fearing and hoping. The Charteris crusade was invented for his particular philosophy Charteris is rallying take place in absolute darkness. He heard Marta switch the omnivision on as he unplugged his razor. Tremors still churned at his core.

The immense cliff of earth loomed even higher above his neat red tiles this morning: chugging things like matchboxes labored up there, black against sky. New clay tumbling among daffodils. It was better in the station of the Speed Police—more like being in a liner, less like drowning in a sea.



"Good morning, Jan."

"Morning, Erik."

Koninkrijk went up to the tower, where two uniformed men lounged, chatting, smoking cheroots. He could look down through the glass roof of the duty room just below, see the current shift relaxed with their feet up, snuggled in wicker chairs, reading paperbacks and magazines. When the warning sirened, the room would be suddenly untidily empty, the paperbacks curly with open pages rubbed in the floor.

Most of these guys had the acid but kept on. Down in Brussels it was worse. As for Germany, Frankfurt and München were burning, they said.

Scanning the information panel, he took a reading of traffic states from other stations along the Highway. Building up from Ostend.

Already, the first throes of the crusade were bursting through the arteries of the Aalter stretch. From the station tower, a fine view; nobody saw it but Koninkrijk, as he read his own keynotes from the vast maimed spread; the remainder of the dutyites grazed their minds among tales of big-breasted whores, affrays with Nazis in occupied Scandinavia, shoot-ups in Fort Knox, double-crossings in Macao, or the litter of the previous night's activities; two officers going off-duty exchange dirty stories over a concession-price Stella Artois in the canteen; reality had a poor attendance, and I'm really the only one but even my eye's half ahead to the time when the English messiah Banshee jets past here in the saddle of the speed-death king and half back to the thought of that Maastricht girl maybe with her I would at last find that certain thing O Lord God I know I don't often but what am I to do about Marta is schizophrenia catching her paralysis my fever meshing causes.

Do you think the emergency government can carry on eh they say it's the food shortage but the Walloons are at the bottom of this you can bet Yeah food shortage they call it a world famine but we know who's at the bottom yeah we know who's at the bottom of it yeah Walloons.

What does she do in there all daylong and I'll have to move her at the weekend or they bury the house tombs doleful voices but how will I persuade her Christ O Lord Jesus get out there move man move leave it all behind since her confounded father interfering old.

The warning sounded and he was down into the front park as the men milled. He climbed into N-Car Five; the slam of his door was echoed by others. News coming over the car radio of a multi-vehicle pile-up on the south lane of the Highway two kilometers north of Aalter. Low Point X. All predicted. Let's go and they roared under the underpass and bucketed out on the feed and from the feed on to the Highway proper, yellow barrier barrels and red warning lights slicing by the hubs. Saliva dying like a tide. Yackerter yackerter speedbeaches of the freeworld man-madman intersurface.

The speedometer his thermometer, creeping up and familiar dirty excitement creaming in him. For someone the moment of truth had come big grind the necessary whiteout the shuttling metal death 3-Ding fast before the windscreen and still many marvelous microseconds safety before impact and the rictus of smiling fracture as the latent forces of acceleration actualized. Koninkrijk hated himself for this greedimaginative vampactof his highflown. Already the cathartos were barking beyond the ditched town, the PILE WONDER sign, the pasty dungheap at the Voeynants house shuttered, and beyond the road widening the crash fences started on either side, cambered outward and curved at the top to catch escaping metal. Fast shallow breathing. The acute angle subtended by impacted heart-bleats on mobility.

The accident heralded itself ahead. Bloodstream flowing south faltered, slowed, dribbled. Koninkrijk's vagus nerve fluttered with empathy. Somewhere ahead was the actual thrombus, all but entirely blocking the artery. The police car swung into the nearest emergency lane. Koninkrijk was out before it stopped and unlocking the barrier between lanes, hoiking a walkie-talkie with him. Sun warm on his shoulders grass too long against the chain

link got to keep nature out of this the weedicides this bloody war that Arabian spray.

It was a typical nose-to-tail job, ten cars involved, some pig-a-back on others like rough parody of animal or coleoptera copulating, sheaths split. Some still filtering through, all passenger heads craned to see desperately want to know if man still stuffed with red blood, ichor, water, what.

"Koch, Schachter, Deslormes, proceed to the rear, get the barriers up and blinker signals ten kilometers back so that there's no further escalation."

Moving forward as he spoke. Discipline the cover for lyric lymph-chug.

"Mittels and Arameche, keep a northward lane free for ambulances."

But they knew. They all needed shouting and excitement and the roar of engines. Everything was just a pattern, culled may be from the raped paperbacks on the station floor.

So like last time and maybe next time. Verisimilitude eroded. A lumbering Swiss truck with Berne number plates slewed half-off the verge. Into its rear, nose crumpled, a red Banshee. Man wrapped round steering wheel, head against shattered screen, piled luggage in back spewed forward over body and shoulders, some broken open, passenger door broken open, oparted ancient Wolseley piled into rear of Banshee, then terrible cluster of vehicles, British registration mostly, patterned crazily. One shot free, burning steadily against outside barrier, lying on its side. People running limping crawling still in trampled grass shouting and crowding and curiosity reality loose among the psychos. The police helicopter clattering up overhead, photographing it all, fanning smoke flat across the wreckage.

Climax of many dreams. Spilt seed of blood.

Loudspeakers barking farther along the road as Koch got to work.

Ambulances arriving, men at the double with float stretchers, doing their instant archaeology, digging down through the thin metallic strata to where life had pulsed a few tiny eons ago, sur-

facing with primitive and unformed artifacts of flesh. Someone saying, "The Banshee was Charteris's car." Time converting entirely into activity as matter converted into energy. Lost races dredged here bit by bit from their cumbrous armor.

Two hours' work later, Koninkrijk sitting exhausted jacket off on the muddied verge, listening in a daze to Charteris speaking to the elect.

"You know I half-foretold this would happen as we multicaded south. You heard the word. Here's a sort of semi-miracle as more-or-less predicted yesterday or whenever it was when we were at that place. The only places we really need are the in-between places that aren't places for they are trajectories of maximum possibility—you see how forced stoppage in this place here created maximum non-possibility for many of us which we call death, the low point where all avenues end.

"All our avenues take a discard but we must play to our most multiplicity in the pack-up. Banjo my agent his avenue is right at a dead breakage. All his phantoms nailed down under a shutter. He Burton who hailed from the Midland carmaker city of Coventry stopped me as we churned out of that place begging to be allowed to ride my Banshee. He had no sounds as to why but the whim so for that reason my thrush Angelina and I took to his heap while he in triumph rode the Banshee. Impulses are there for usage. So it can all be explained away that he had some suicidal wish or that he as a good agent stage-managed it to look like a miracle that I was spared from death as predicted or that if I had instead driven no pile-up would have occurred, or that either this accident was already preperformed in any of its guises or that it was in some way willed by me or us all photoed corporately from some messianic drive in our hidden minds like the serpent of our bosoms. If you all seek dutifully for the certainty of this occasion in its eternal recurrence, each of you will find a different solution more satisfying than others to you, which clips a speciality into the ego bracket, and so that will be regarded by you as the most 'probable' solution alongside all possibles: so like renegade compasses you will each point to a dif-

ferent pole of truth, where on this ribbon all will indicate a personal mean. That's what we side for isn't it, the difference? Don't get automatic! That I beg you to treasure, relish the uncertainty, shun certainty, search the fuzzy set, for when you find accepted probability, it must surely be a conspiracy not to be free between two or more of you, like the old prepsychedelic ideologies of non-permissive non-multisociety. All this I shall say less certainly in my book *Man the Driver*, but never more inspiredly than now in this sparked-out moment by the org-up of buddies where this loss so belts us in."

He pitched forward on his face as Angeline ran forward to break his fall. The uniformed police, the tatty audience, sun-specked, entropized again. The day hinged forward with mobility gain.

Koninkrijk saw his chance. Running forward to two police, he said lowly, "Get him into my car and let's take him back to H.Q. The coming prophet!"

He was sitting up on the hard white bunk picking with a fork at police hamandbeans on a hard white police plate in the hard gray migrainey room, with Angeline hard by him, and Koninkrijk respectful standing.

"Another miracle? I'm only moving on the big web. But I will see your wife, yes, bombardment of images tells me. It all floats us nearer to the lithocarp Brussels and her alternatives to transpelt for Burton's. Also I intuit she could have a need for me. Or a sort of need for which we could substitute a fulfillment." He half-smiled, sipping at a tumbler of water, sifting the water across his palate, seeing the plastic glass was made in France: Duraplex.

"He has a sort of impersonal thing helps people," Angeline said.

"I think she is schizophrenic, sir. She flushes the what's-it when I come in."

"We all do, most of us. The wish to live more than one life—natural now, as the brain complexifies from generation. The world will soon tolerate only multilivers. All pedestrians are at

their exits. You too? No dream world or semirealised thing aborting in the mental motorways?"

Slight bricky flush concealed under Koninkrijk's jowls. All the joys and sorrows really aborted into a secret drain life of autoplexy none shared except for her blue eyes, the tired willowy hand stretched over the sports page of a Maastricht paper.

"They do clash sometimes. I'll drive you to my house. She'll be there."

The girl Angeline came too. So he did not live entirely inside himself, or else found there echoes from those about in her head of weeping black hair. So he could be a genuine messiah—but what nonsense when he himself claimed but semimessiahhood, and after all Europe wasn't the Levant, was it? In under a kilometer, small space to burn the gas and the thin house present.

Wondering where he was he recalled all past confidence and frenzy and signed to them that he would enter the thin coffin door alone.

"Very well. I warn you, you'll find her reserved." Nervous glance at the woman Angeline. "Not pretty, my wife. Very thin, I think the spring disagrees with her, she can't unwind." Who was without these failures in their stationary time?

And father had said that she should have a new bicycle  
On her birthday at the end of May, as summer  
Began; but they had been too poor when her birthday arrived  
And he had given her instead a carton of crayons—  
The very best Swiss crayons—  
But she had never used them just to show her displeasure  
Because she had wanted to rove the Ardennes countryside;  
And perhaps it was since then that her father had been cold  
To her and ceased to show his love. Sometimes it almost seemed  
That if she kept rigid still he might appear stern  
In one of the other noiseless rooms, dark  
And showing his slight and characteristically lopsided smile,  
Saying, Marta, my child, come to your old Papal  
She had arranged the mirrors differently in the rooms,

Stacking them so that she could also observe the landing  
Via one of the violet-tinted screens  
The maureen-colored mirrors  
With a side glance down along  
The melancholy perspective  
Of the stair-  
Case.

Later, she would have to move herself  
To clean the house; but she so much preferred the sight of her  
Lair in abstraction through mirror and screen  
That first she must be permitted  
The vigil of watching and listening the morning through,  
Of watching and listening all mornings through.  
All her private rooms were unused by other  
Persons; nobody was allowed  
To come and go in them; their silence was the sanctity  
Like even unto the sanctity  
Yea of St. Barnabas Church  
Yea wherein she had visited, visited every Sunday  
As a child with her parents every Sunday stiffly  
Dressed in Sabbath clothes;  
But this secret silence was of a different quality;  
Each room she surveyed possessed individual silences:  
One, a more rickety silence,  
Another a more rumpled one;  
Another a veined silence;  
Another like a cross-section through calf's meat,  
With a young-patterned texture;  
Another with a domineering glassy silence;  
These deserted quietus were more balmful and constricting  
To her viscera than April's flowers.  
A starker shape of silence ruled the stairwell.  
Stealthily she moved her attention to it and  
Came upon her father standing  
There waiting amid the shade.

In his attitude of great attention she knew him. "Marta!"  
"Father, I  
Am herel" "Don't be alarmed!" "Oh, Father,  
You have come at last!" She could not understand but  
Delight grew high and flowered in the stalks of her confusion  
Telling itself as always in a burst of penitence  
And self-reproach, till her lips grew younger. He  
Attempted no answer to her flow, advanced  
Toward her through the mirrored rooms, walking  
Delicate as if he saw  
The ancient barbs she still cultivated sharp  
About his path. She flung herself at him, all she had to give  
As she gave her self-denigration, closing her eyes, clutching  
Him. He half-leaned, half-stood, half-understanding  
The scent of trauma in the scene, glancingly taking  
In the fetishistic idols of emptiness on the bare walls, seeing  
Again the clever duplication of life she had contrived  
Imaged in the bottom of his French plastic tumbler: Duraplex:  
She has her alternatives. "Live  
In both worlds, Marta, come with me!" "Father, you give  
Me your blessing once again?" "I give  
You my new blessing—fuzzy though you may find it, you must  
Learn to live by it, you understand? My wish is this,  
That you sojourn with nobody who desires to force you to live  
On one plane at a time all the time: time must be divisible  
And allowed Gordian complexities. You must be  
At once the erring child as we all are  
And the reasoning adult as we all try to be  
No strain placed on either  
The two together tending toward  
The greatly hopeful state we half-call godliness  
Is that semiunderstood?"  
"And Jan, Papa?"  
"For a while you come to live with me and Angelina  
And let your man go free, for he has been more cut



By your trammels than you. You must learn to bide  
Outside

Where constriction binds less, so one later spring you may  
Come together again to find water flushing in the earth  
Closet." "I see father." Now she looked at him and realized  
Like a trump turned up

He was not entirely her father, but the revelation had no  
Poison: beneath the last moment's hand of mighty truth  
Another shuffled: that in truth Marta did not want her father  
And would now sprout free of him and his mirroring  
Eyes that saw her only with disfavor: so her lips  
Growing younger a mask cracked and fluttered  
To the carpet unnoticed. "Jan

And I will meet again, Father? After I have duped him so badly  
With my hateful secret passion all these overfurnished  
Years? There is no final parting?" "Well,  
There's really no final meeting.

It's your own collusions that conspire or not toward  
Another person—but you'll see directly. . . . Come along  
There's a daffodil or two left outside in the wet and soon  
Sweet rocket will flower in your secret garden, Marta." She  
Looked at his eyes. They went down the stairs, undusted  
That and every following morning, leaving the omnivision  
working

Still. The cracks rioted on the walls like bindweed, flowering in  
peeled distemper; and as they grew more open-lipped, the  
rumbling town-destroying machines clowned over the roof tree  
and clay pouted through the fissures. The mirroring screens  
showed how the earth soiled in through every whispering room,  
bringing familiar despoliation; but by then the sweet rocket  
flowered for Marta.

Jan also, as the reformed crusade turned south, turned east,  
burning his tires and singing the song whose words he had forgotten and never known, toward freer arms whose meaning he had never known, where the Meuse became the Maars.

## Notes

"The SF I read as a boy in the 30's and early 40's promised marvelous things for the sixties," wrote Brian W. Aldiss in 1968. "Possibly you will recall that, according to Wells' 'The Shape of Things to Come,' 1965 was the year in which a conference was called at Basra (by the Transport Union) from which the Modern State emerged. . . . How simple it was all going to be! . . . It didn't work out that way. . . . we see that every scientific advance advances us merely a shade nearer some ultimate confusion. Of course there is no such thing as a general spiritual advance." His language itself underscores his disillusionment and that felt by many others who embraced the dream of early science fiction in their youth. One wonders whether or not it is by chance that, at least at first, the majority of them were British. Although not so despairing as some, Aldiss succinctly states the ideological core of the New Wave, which, as noted, has centered around the magazine *New Worlds*. These are science fiction's disenchantments. "And the future was always presented as a simplified version of the present (and still mostly is), whereas we are moving into eras of greater complexity as people, communications, and media all multiply."

Caught between a flood of discoveries which has disrupted any stable model of the universe and an unfulfilled dream, writers like Aldiss sought for a literary form which would permit them to make use of conventional sf materials to express their sense of isolation, their sense of estrangement (one is tempted to use the word bereavement). Between 1967 and 1969, Aldiss wrote a series for *New Worlds* which was gathered together, revised, and first published as the novel *Barefoot in the Head: A European Fantasia* by Faber and Faber in 1969. Together with John Brunner's *Stand on Zanzibar*, which owes at least something of its manner to Dos Passos and was an award winner in 1969, and J. G. Ballard's *The Atrocity Exhibition*, which has not yet (1971) found an American publisher, Aldiss' *Barefoot in the Head* remains, technically, one of the most notable experimental novels produced by a writer of the New Wave and published as science fiction in Britain during the 1960s.

"Still Trajectories," completed in 1967, opens the second part of the novel and functions as its core. In postcatastrophic Europe after the "Acid Head War"—when Kuwait inundated her neighbors with Psycho-Chemical Aerosol bombs—Colin Charteris, a Slav and a devotee of

P. D. Ouspenski, undertakes a messianic crusade. Increasingly affected by the drugs whose strength seems unabated once they are into the ecological cycle, he suffers an initial hallucination: "He saw Europe . . . purely as a fabrication of time, no matter involved. Matter was an hallucinatory experience: merely a slow-motion perceptual experience of certain time/emotion nodes passing through the brain. No, that the brain seized on in turn as it moved around the perceptual web it had spun, would spin, from childhood on. . . . If all were hallucination, then clearly he was not at this restaurant table. . . . Clearly Metz did not exist. The autostrada was a projection of temporal influences within him, perhaps a riverine duologue of his entire life. France? Earth? Where was he? Who was he?" Given a fresh idiom and a new emphasis upon time, how like the dilemma the eighteenth-century psychological empiricists found themselves in. One recalls the terrible punchline attributed to one of them: "No mind, but never matter." In desperation, awash in the instability of his own consciousness, Charteris brings forth the doctrine perhaps most succinctly stated in "Still Trajectories" when he speaks of life consisting only of "still moments and nothing more," and implores his audience to live freely, fully, taking advantage of all the "alternatives" to gain "a unilateral immortality."

Yet it is not the theme which gives *Barefoot in the Head* its basic strength; indeed, when the novel is taken as a whole, one senses, at least at times, that the very intensity of Aldiss' emotional and intellectual involvement with the theme imposes upon his ability to explore, to satirize fully the absurdity of the scene he has created. At times only: for the premise has freed him to spin a web of associations too dense to comprehend fully upon a single reading. He plays with language and imagery. The dominant, recurring image throughout the book—again given most effective expression in "Still Trajectories" because it is expanded into the central episode—is that of the multicar wreck upon the autostrada. It comes to symbolize "technological fulfillment" for Charteris, whose own steed is the red Banshee and whose book of revelations is "Man the Driver." Or take his name, Charteris; Aldiss reminds the reader a number of times of its relationship to Leslie Charteris' gentleman-thief, the Saint. Other examples, including his practice of intensifying or shifting perspective through the use of poetry, could be cited. In *Barefoot in the Head*, Aldiss has proved that sf materials can be given any literary form, and in it he has found a form appropriate to his nightmare of contemporary experience.



## SUNDANCE

Robert Silverberg

(1969)

Today you liquidated about 50,000 Eaters in Sector A, and now you are spending an uneasy night. You and Herndon flew east at dawn, with the green-gold sunrise at your backs, and sprayed the neural pellets over a thousand hectares along the Forked River. You flew on into the prairie beyond the river, where the Eaters have already been wiped out, and had lunch sprawled on that thick, soft carpet of grass where the first settlement is expected to rise. Herndon picked some juiciflowers, and you enjoyed half an hour of mild hallucinations. Then, as you headed toward the copter to begin an afternoon of further pellet spraying, he said suddenly, "Tom, how would you feel about this if it turned out that the Eaters weren't just animal pests? That they were *people*, say, with a language and rites and a history and all?"

You thought of how it had been for your own people.

"They aren't," you said.

"Suppose they were. Suppose the Eaters—"

"They aren't. Drop it."

Herndon has this streak of cruelty in him that leads him to ask such questions. He goes for the vulnerabilities; it amuses him. All night now his casual remark has echoed in your mind. Suppose the Eaters . . . Suppose the Eaters . . . Suppose . . . Suppose . . .

You sleep for a while, and dream, and in your dreams you swim through rivers of blood.

Foolishness. A feverish fantasy. You know how important it is to exterminate the Eaters fast, before the settlers get here. They're just animals, and not even harmless animals at

that; ecology-wreckers is what they are, devourers of oxygen-liberating plants, and they have to go. A few have been saved for zoological study. The rest must be destroyed. Ritual extirpation of undesirable beings, the old, old story. But let's not complicate our job with moral qualms, you tell yourself. Let's not dream of rivers of blood.

The Eaters don't even *have* blood, none that could flow in rivers, anyway. What they have is, well, a kind of lymph that permeates every tissue and transmits nourishment along the interfaces. Waste products go out the same way, osmotically. In terms of process, it's structurally analogous to your own kind of circulatory system, except there's no network of blood vessels hooked to a master pump. The life-stuff just oozes through their bodies, as though they were amoebas or sponges or some other low-phylum form. Yet they're definitely high-phylum in nervous system, digestive setup, limb-and-organ template, etc. Odd, you think. The thing about aliens is that they're alien, you tell yourself, not for the first time.

The beauty of their biology for you and your companions is that it lets you exterminate them so neatly.

You fly over the grazing grounds and drop the neural pellets. The Eaters find and ingest them. Within an hour the poison has reached all sectors of the body. Life ceases; a rapid breakdown of cellular matter follows, the Eater literally falling apart molecule by molecule the instant that nutrition is cut off; the lymph-like stuff works like acid; a universal lysis occurs; flesh and even the bones, which are cartilaginous, dissolve. In two hours, a puddle on the ground. In four, nothing at all left. Considering how many millions of Eaters you've scheduled for extermination here, it's sweet of the bodies to be self-disposing. Otherwise what a charnel house this world would become!

Suppose the Eaters . . .

*Damn* Herndon. You almost feel like getting a memory-editing in the morning. Scrape his stupid speculations out of your head. If you dared. If you dared.

In the morning he does not dare. Memory-editing frightens him; he will try to shake free of his new-found guilt without it. The Eaters, he explains to himself, are mindless herbivores, the unfortunate victims of human expansionism, but not really deserving of passionate defense. Their extermination is not tragic; it's just too bad. If Earthmen are to have this world, the Eaters must relinquish it. There's a difference, he tells himself, between the elimination of the Plains Indians from the American prairie in the nineteenth century and the destruction of the bison on that same prairie. One feels a little wistful about the slaughter of the thundering herds; one regrets the butchering of millions of the noble brown woolly beasts, yes. But one feels outrage, not mere wistful regret, at what was done to the Sioux. There's a difference. Reserve your passions for the proper cause.

He walks from his bubble at the edge of the camp toward the center of things. The flagstone path is moist and glistening. The morning fog has not yet lifted, and every tree is bowed, the long, notched leaves heavy with droplets of water. He pauses, crouching, to observe a spider-analog spinning its asymmetrical web. As he watches, a small amphibian, delicately shaded turquoise, glides as inconspicuously as possible over the mossy ground. Not inconspicuously enough; he gently lifts the little creature and puts it on the back of his hand. The gills flutter in anguish, and the amphibian's sides quiver. Slowly, cunningly, its color changes until it matches the coppery tone of the hand. The camouflage is excellent. He lowers his hand and the amphibian scurries into a puddle. He walks on.

He is forty years old, shorter than most of the other members of the expedition, with wide shoulders, a heavy chest, dark glossy hair, a blunt, spreading nose. He is a biologist. This is his third career, for he has failed as an anthropologist and as a developer of real estate. His name is Tom Two Ribbons. He has been married twice but has had no children. His great-grandfather died of alcoholism; his grandfather was addicted to hallucinogens; his father had compulsively visited cheap memory-editing parlors. Tom Two Ribbons is conscious that he

is failing a family tradition, but he has not yet found his own mode of self-destruction.

In the main building he discovers Herndon, Julia, Ellen, Schwartz, Chang, Michaelson, and Nichols. They are eating breakfast; the others are already at work. Ellen rises and comes to him and kisses him. Her short soft yellow hair tickles his cheeks. "I love you," she whispers. She has spent the night in Michaelson's bubble. "I love you," he tells her, and draws a quick vertical line of affection between her small pale breasts. He winks at Michaelson, who nods, touches the tops of two fingers to his lips, and blows them a kiss. We are all good friends here, Tom Two Ribbons thinks.

"Who drops pellets today?" he asks.

"Mike and Chang," says Julia. "Sector C."

Schwartz says, "Eleven more days and we ought to have the whole peninsula clear. Then we can move inland."

"If our pellet supply holds up," Chang points out.

Herndon says, "Did you sleep well, Tom?"

"No," says Tom. He sits down and taps out his breakfast requisition. In the west, the fog is beginning to burn off the mountains. Something throbs in the back of his neck. He has been on this world nine weeks now, and in that time it has undergone its only change of season, shading from dry weather to foggy. The mists will remain for many months. Before the plains parch again, the Eaters will be gone and the settlers will begin to arrive. His food slides down the chute and he seizes it. Ellen sits beside him. She is a little more than half his age; this is her first voyage; she is their keeper of records, but she is also skilled at editing. "You look troubled," Ellen tells him. "Can I help you?"

"No. Thank you."

"I hate it when you get gloomy."

"It's a racial trait," says Tom Two Ribbons.

"I doubt that very much."

"The truth is that maybe my personality reconstruct is wearing thin. The trauma level was so close to the surface. I'm just a walking veneer, you know."



Ellen laughs prettily. She wears only a sprayon halfwrap. Her skin looks damp; she and Michaelson have had a swim at dawn. Tom Two Ribbons is thinking of asking her to marry him, when this job is over. He has not been married since the collapse of the real estate business. The therapist suggested divorce as part of the reconstruct. He sometimes wonders where Terry has gone and whom she lives with now. Ellen says, "You seem pretty stable to me, Tom."

"Thank you," he says. She is young. She does not know.

"If it's just a passing gloom I can edit it out in one quick snip."

"Thank you," he says. "No."

"I forgot. You don't like editing."

"My father—"

"Yes?"

"In fifty years he pared himself down to a thread," Tom Two Ribbons says. "He had his ancestors edited away, his whole heritage, his religion, his wife, his sons, finally his name. Then he sat and smiled all day. Thank you, no editing."

"Where are you working today?" Ellen asks.

"In the compound, running tests."

"Want company? I'm off all morning."

"Thank you, no," he says, too quickly. She looks hurt. He tries to remedy his unintended cruelty by touching her arm lightly and saying, "Maybe this afternoon, all right? I need to commune a while. Yes?"

"Yes," she says, and smiles, and shapes a kiss with her lips.

After breakfast he goes to the compound. It covers a thousand hectares east of the base; they have bordered it with neural-field projectors at intervals of eighty meters, and this is a sufficient fence to keep the captive population of two hundred Eaters from straying. When all the others have been exterminated, this study group will remain. At the southwest corner of the compound stands a lab bubble from which the experiments are run: metabolic, psychological, physiological, ecological. A stream crosses the compound diagonally. There is a low ridge of grassy hills at its eastern edge. Five distinct copses of tightly clustered knife-

blade trees are separated by patches of dense savanna. Sheltered beneath the grass are the oxygen-plants, almost completely hidden except for the photosynthetic spikes that jut to heights of three or four meters at regular intervals, and for the lemon-colored respiratory bodies, chest high, that make the grassland sweet and dizzying with exhaled gases. Through the fields move the Eaters in a straggling herd, nibbling delicately at the respiratory bodies.

Tom Two Ribbons spies the herd beside the stream and goes toward it. He stumbles over an oxygen-plant hidden in the grass but deftly recovers his balance and, seizing the puckered orifice of the respiratory body, inhales deeply. His despair lifts. He approaches the Eaters. They are spherical, bulky, slow-moving creatures, covered by masses of coarse orange fur. Saucer-like eyes protrude above narrow rubbery lips. Their legs are thin and scaly, like a chicken's, and their arms are short and held close to their bodies. They regard him with bland lack of curiosity. "Good morning, brothers!" is the way he greets them this time, and he wonders why.

I noticed something strange today. Perhaps I simply sniffed too much oxygen in the fields; maybe I was succumbing to a suggestion Herndon planted; or possibly it's the family masochism cropping out. But while I was observing the Eaters in the compound, it seemed to me, for the first time, that they were behaving intelligently, that they were functioning in a ritualized way.

I followed them around for three hours. During that time they uncovered half a dozen outcroppings of oxygen-plants. In each case they went through a stylized pattern of action before starting to munch. They:

Formed a straggly circle around the plants.

Looked toward the sun.

Looked toward their neighbors on left and right around the circle.

Made fuzzy neighing sounds *only* after having done the foregoing.

Looked toward the sun again.

Moved in and ate.

If this wasn't a prayer of thanksgiving, a saying of grace, then what was it? And if they're advanced enough spiritually to say grace, are we not therefore committing genocide here? Do chimpanzees say grace? Christ, we wouldn't even wipe out chimps the way we're cleaning out the Eaters! Of course, chimps don't interfere with human crops, and some kind of coexistence would be possible, whereas Eaters and human agriculturalists simply can't function on the same planet. Nevertheless, there's a moral issue here. The liquidation effort is predicated on the assumption that the intelligence level of the Eaters is about on a par with that of oysters, or, at best, sheep. Our consciences stay clear because our poison is quick and painless and because the Eaters thoughtfully dissolve upon dying, sparing us the mess of incinerating millions of corpses. But if they pray—

I won't say anything to the others just yet. I want more evidence, hard, objective. Films, tapes, record cubes. Then we'll see. What if I can show that we're exterminating intelligent beings? My family knows a little about genocide, after all, having been on the receiving end just a few centuries back. I doubt that I could halt what's going on here. But at the very least I could withdraw from the operation. Head back to Earth and stir up public outcries.

I hope I'm imagining this.

I'm not imagining a thing. They gather in circles; they look to the sun; they neigh and pray. They're only balls of jelly on chicken-legs, but they give thanks for their food. Those big round eyes now seem to stare accusingly at me. Our tame herd here knows what's going on: that we have descended from the stars to eradicate their kind, and that they alone will be spared. They have no way of fighting back or even of communicating their displeasure, but they *know*. And hate us. Jesus, we have killed two million of them since we got here, and in a metaphorical way I'm stained with blood, and what will I do, what can I do?

I must move very carefully, or I'll end up drugged and edited.

I can't let myself seem like a crank, a quack, an agitator. I can't stand up and *denounce!* I have to find allies. Herndon, first. He surely is on to the truth; he's the one who nudged *me* to it, that day we dropped pellets. And I thought he was merely being vicious in his usual way!

I'll talk to him tonight.

He says, "I've been thinking about that suggestion you made. About the Eaters. Perhaps we haven't made sufficiently close psychological studies. I mean, if they really *are* intelligent—"

Herndon blinks. He is a tall man with glossy dark hair, a heavy beard, sharp cheekbones. "Who says they are, Tom?"

"You did. On the far side of the Forked River, you said—"

"It was just a speculative hypothesis. To make conversation."

"No, I think it was more than that. You really believed it."

Herndon looks troubled. "Tom, I don't know what you're trying to start, but don't start it. If I for a moment believed we were killing intelligent creatures, I'd run for an editor so fast I'd start an implosion wave."

"Why did you ask me that thing, then?" Tom Two Ribbons says.

"Idle chatter."

"Amusing yourself by kindling guilts in somebody else? You're a bastard, Herndon. I mean it."

"Well, look, Tom, if I had any idea that you'd get so worked up about a hypothetical suggestion—" Herndon shakes his head. "The Eaters aren't intelligent beings. Obviously. Otherwise we wouldn't be under orders to liquidate them."

"Obviously," says Tom Two Ribbons.

Ellen said, "No, I don't know what Tom's up to. But I'm pretty sure he needs a rest. It's only a year and a half since his personality reconstruct, and he had a pretty bad breakdown back then."

Michaelson consulted a chart. "He's refused three times in a row to make his pellet-dropping run. Claiming he can't take time

away from his research. Hell, we can fill in for him, but it's the idea that he's ducking chores that bothers me."

"What kind of research is he doing?" Nichols wanted to know.

"Not biological," said Julia. "He's with the Eaters in the compound all the time, but I don't see him making any tests on them. He just watches them."

"And talks to them," Chang observed.

"And talks, yes," Julia said.

"About what?" Nichols asked.

"Who knows?"

Everyone looked at Ellen. "You're closest to him," Michaelson said. "Can't you bring him out of it?"

"I've got to know what he's in, first," Ellen said. "He isn't saying a thing."

You know that you must be very careful, for they outnumber you, and their concern for your mental welfare can be deadly. Already they realize you are disturbed, and Ellen has begun to probe for the source of the disturbance. Last night you lay in her arms and she questioned you, obliquely, skillfully, and you knew what she is trying to find out. When the moons appeared she suggested that you and she stroll in the compound, among the sleeping Eaters. You declined, but she sees that you have become involved with the creatures.

You have done probing of your own—subtly, you hope. And you are aware that you can do nothing to save the Eaters. An irrevocable commitment has been made. It is 1876 all over again; these are the bison, these are the Sioux, and they must be destroyed, for the railroad is on its way. If you speak out here, your friends will calm you and pacify you and edit you, for they do not see what you see. If you return to Earth to agitate, you will be mocked and recommended for another reconstruct. You can do nothing. You can do nothing.

You cannot save, but perhaps you can record.

Go out into the prairie. Live with the Eaters; make yourself their friend; learn their ways. Set it down, a full account of their

culture, so that at least that much will not be lost. You know the techniques of field anthropology. As was done for your people in the old days, do now for the Eaters.

He finds Michaelson. "Can you spare me for a few weeks?" he asks.

"Spare you, Tom? What do you mean?"

"I've got some field studies to do. I'd like to leave the base and work with Eaters in the wild."

"What's wrong with the ones in the compound?"

"It's the last chance with wild ones, Mike. I've got to go."

"Alone, or with Ellen?"

"Alone."

Michaelson nods slowly. "All right, Tom. Whatever you want. Go. I won't hold you here."

I dance in the prairie under the green-gold sun. About me the Eaters gather. I am stripped; sweat makes my skin glisten; my heart pounds. I talk to them with my feet, and they understand.

They understand.

They have a language of soft sounds. They have a god. They know love and awe and rapture. They have rites. They have names. They have a history. Of all this I am convinced.

I dance on thick grass.

How can I reach them? With my feet, with my hands, with my grunts, with my sweat. They gather by the hundreds, by the thousands, and I dance. I must not stop. They cluster about me and make their sounds. I am a conduit for strange forces. My great-grandfather should see me now! Sitting on his porch in Wyoming, the firewater in his hand, his brain rotting—see me now, old one! See the dance of Tom Two Ribbons! I talk to these strange ones with my feet under a sun that is the wrong color. I dance. I dance.

"Listen to me," I say. "I am your friend, I alone, the only one you can trust. Trust me, talk to me, teach me. Let me preserve your ways, for soon the destruction will come."

I dance, and the sun climbs, and the Eaters murmur.

There is the chief. I dance toward him, back, toward, I bow, I point to the sun, I imagine the being that lives in that ball of flame, I imitate the sounds of these people, I kneel, I rise, I dance. Tom Two Ribbons dances for you.

I summon skills my ancestors forgot. I feel the power flowing in me. As they danced in the days of the bison, I dance now, beyond the Forked River.

I dance, and now the Eaters dance too. Slowly, uncertainly, they move toward me, they shift their weight, lift leg and leg, sway about. "Yes, like that!" I cry. "Dancel"

We dance together as the sun reaches noon height.

Now their eyes are no longer accusing. I see warmth and kinship. I am their brother, their redskinned tribesman, he who dances with them. No longer do they seem clumsy to me. There is a strange ponderous grace in their movements. They dance. They dance. They caper about me. Closer, closer, closer!

We move in holy frenzy.

They sing, now, a blurred hymn of joy. They throw forth their arms, unclench their little claws. In unison they shift weight, left foot forward, right, left, right. Dance, brothers, dance, dance, dancel They press against me. Their flesh quivers; their smell is a sweet one. They gently thrust me across the field, to a part of the meadow where the grass is deep and untrampled. Still dancing, we seek for the oxygen-plants, and find clumps of them beneath the grass, and they make their prayer and seize them with their awkward arms, separating the respiratory bodies from the photosynthetic spikes. The plants, in anguish, release floods of oxygen. My mind reels. I laugh and sing. The Eaters are nibbling the lemon-colored perforated globes, nibbling the stalks as well. They thrust their plants at me. It is a religious ceremony, I see. Take from us, eat with us, join with us, this is the body, this is the blood, take, eat, join. I bend forward and put a lemon-colored globe to my lips. I do not bite; I nibble, as they do, my teeth slicing away the skin of the globe. Juice spurts into my mouth, while oxygen drenches my nostrils. The Eaters sing ho-

sannas. I should be in full paint for this, paint of my forefathers, feathers too, meeting their religion in the regalia of what should have been mine. Take, eat, join. The juice of the oxygen-plant flows in my veins. I embrace my bothers. I sing, and as my voice leaves my lips it becomes an arch that glistens like new steel, and I pitch my song lower, and the arch turns to tarnished silver. The Eaters crowd close. The scent of their bodies is fiery red to me. Their soft cries are puffs of steam. The sun is very warm; its rays are tiny jagged pings of puckered sound, close to the top of my range of hearing, plink! plink! plink! The thick grass hums to me, deep and rich, and the wind hurls points of flame along the prairie. I devour another oxygen-plant, and then a third. My brothers laugh and shout. They tell me of their gods, the god of warmth, the god of food, the god of pleasure, the god of death, the god of holiness, the god of wrongness, and the others. They recite for me the names of their kings, and I hear their voices as splashes of green mold on the clean sheet of the sky. They instruct me in their holy rites. I must remember this, I tell myself, for when it is gone it will never come again. I continue to dance. They continue to dance. The color of the hills becomes rough and coarse, like abrasive gas. Take, eat, join. Dance. They are so gentle!

I hear the drone of the copter, suddenly.

It hovers far overhead. I am unable to see who flies in it. "No," I scream. "Not here! Not these people! Listen to me! This is Tom Two Ribbons! Can't you hear me? I'm doing a field study here! You have no right—!"

My voice makes spirals of blue moss edged with red sparks. They drift upward and are scattered by the breeze.

I yell, I shout, I bellow. I dance and shake my fists. From the wings of the copter the jointed arms of the pellet-distributors unfold. The gleaming spigots extend and whirl. The neural pellets rain down into the meadow, each tracing a blazing track that lingers in the sky. The sound of the copter becomes a furry carpet stretching to the horizon, and my shrill voice is lost in it.

The Eaters drift away from me, seeking the pellets, scratching



at the roots of the grass to find them. Still dancing, I leap into their midst, striking the pellets from their hands, hurling them into the stream, crushing them to powder. The Eaters growl black needles at me. They turn away and search for more pellets. The copter turns and flies off, leaving a trail of dense oily sound. My brothers are gobbling the pellets eagerly.

There is no way to prevent it.

Joy consumes them and they topple and lie still. Occasionally a limb twitches; then even this stops. They begin to dissolve. Thousands of them melt on the prairie, sinking into shapelessness, losing their spherical forms, flattening, ebbing into the ground. The bonds of the molecules will no longer hold. It is the twilight of protoplasm. They perish. They vanish. For hours I walk the prairie. Now I inhale oxygen; now I eat a lemon-colored globe. Sunset begins with the ringing of leaden chimes. Black clouds make brazen trumpet calls in the east and the deepening wind is a swirl of coaly bristles. Silence comes. Night falls. I dance. I am alone.

The copter comes again, and they find you, and you do not resist as they gather you in. You are beyond bitterness. Quietly you explain what you have done and what you have learned, and why it is wrong to exterminate these people. You describe the plant you have eaten and the way it affects your senses, and as you talk of the blessed synesthesia, the texture of the wind and the sound of the clouds and the timbre of the sunlight, they nod and smile and tell you not to worry, that everything will be all right soon, and they touch something cold to your forearm, so cold that it is a whirl and a buzz and the deintoxicant sinks into your vein and soon the ecstasy drains away, leaving only the exhaustion and the grief.

He says, "We never learn a thing, do we? We export all our horrors to the stars. Wipe out the Armenians, wipe out the Jews, wipe out the Tasmanians, wipe out the Indians, wipe out everyone who's in the way, and then come out here and do the same damned murderous thing. You weren't with me out there.

You didn't dance with them. You didn't see what a rich, complex culture the Eaters have. Let me tell you about their tribal structure. It's dense: seven levels of matrimonial relationships, to begin with, and an exogamy factor that requires—"

Softly Ellen says, "Tom, darling, nobody's going to harm the Eaters."

"And the religion," he goes on. "Nine gods, each one an aspect of *the* god. Holiness and wrongness both worshiped. They have hymns, prayers, a theology. And we, the emissaries of the god of wrongness—"

"We're not exterminating them," Michaelson says. "Won't you understand that, Tom? This is all a fantasy of yours. You've been under the influence of drugs, but now we're clearing you out. You'll be clean in a little while. You'll have perspective again."

"A fantasy?" he says bitterly. "A drug dream? I stood out in the prairie and saw you drop pellets. And I watched them die and melt away. I didn't dream that."

"How can we convince you?" Chang asks earnestly. "What will make you believe? Shall we fly over the Eater country with you and show you how many millions there are?"

"But how many millions have been destroyed?" he demands.

They insist that he is wrong. Ellen tells him again that no one has ever desired to harm the Eaters. "This is a scientific expedition, Tom. We're here to *study* them. It's a violation of all we stand for to injure intelligent lifeforms."

"You admit that they're intelligent?"

"Of course. That's never been in doubt."

"Then why drop the pellets?" he asks. "Why slaughter them?"

"None of that has happened, Tom," Ellen says. She takes his hand between her cool palms. "Believe us. Believe us."

He says bitterly, "If you want me to believe you, why don't you do the job properly? Get out the editing machine and go to work on me. You can't simply *talk* me into rejecting the evidence of my own eyes."

"You were under drugs all the time," Michaelson says.

"I've never taken drugs! Except for what I ate in the meadow,

when I danced—and that came after I had watched the massacre going on for weeks and weeks. Are you saying that it's a retro-active delusion?"

"No, Tom," Schwartz says. "You've had this delusion all along. It's part of your therapy, your reconstruct. You came here programmed with it."

"Impossible," he says.

Ellen kisses his fevered forehead. "It was done to reconcile you to mankind, you see. You had this terrible resentment of the displacement of your people in the nineteenth century. You were unable to forgive the industrial society for scattering the Sioux, and you were terribly full of hate. Your therapist thought that if you could be made to participate in an imaginary modern extermination, if you could come to see it as a necessary operation, you'd be purged of your resentment and able to take your place in society as—"

He thrusts her away. "Don't talk idiocy! If you knew the first thing about reconstruct therapy, you'd realize that no reputable therapist could be so shallow. There are no one-to-one correlations in reconstructs. No, don't touch me. Keep away. Keep away."

He will not let them persuade him that this is merely a drug-born dream. It is no fantasy, he tells himself, and it is no therapy. He rises. He goes out. They do not follow him. He takes a copter and seeks his brothers.

Again I dance. The sun is much hotter today. The Eaters are more numerous. Today I wear paint, today I wear feathers. My body shines with my sweat. They dance with me, and they have a frenzy in them that I have never seen before. We pound the trampled meadow with our feet. We clutch for the sun with our hands. We sing, we shout, we cry. We will dance until we fall.

This is no fantasy. These people are real, and they are intelligent, and they are doomed. This I know.

We dance. Despite the doom, we dance.

My great-grandfather comes and dances with us. He too is real.

His nose is like a hawk's, not blunt like mine, and he wears the big headdress, and his muscles are like cords under his brown skin. He sings, he shouts, he cries.

Others of my family join us.

We eat the oxygen-plants together. We embrace the Eaters. We know, all of us, what it is to be hunted.

The clouds make music and the wind takes on texture and the sun's warmth has color.

We dance. We dance. Our limbs know no weariness.

The sun grows and fills the whole sky, and I see no Eaters now, only my own people, my father's fathers across the centuries, thousands of gleaming skins, thousands of hawk's noses, and we eat the plants, and we find sharp sticks and thrust them into our flesh, and the sweet blood flows and dries in the blaze of the sun, and we dance, and we dance, and some of us fall from weariness, and we dance, and the prairie is a sea of bobbing headdresses, an ocean of feathers, and we dance, and my heart makes thunder, and my knees become water, and the sun's fire engulfs me, and I dance, and I fall, and I dance, and I fall, and I fall, and I fall.

Again they find you and bring you back. They give you the cool snout on your arm to take the oxygen-plant drug from your veins, and then they give you something else so you will rest. You rest and you are very calm. Ellen kisses you and you stroke her soft skin, and then the others come in and they talk to you, saying soothing things, but you do not listen, for you are searching for realities. It is not an easy search. It is like falling through many trapdoors, looking for the one room whose floor is not hinged. Everything that has happened on this planet is your therapy, you tell yourself, designed to reconcile an embittered aborigine to the white man's conquest; nothing is really being exterminated here. You reject that and fall through and realize that this must be the therapy of your friends; they carry the weight of accumulated centuries of guilts and have come here to shed that load, and you are here to ease them of their burden, to draw their sins into yourself and give them forgiveness. Again you fall

through, and see that the Eaters are mere animals who threaten the ecology and must be removed; the culture you imagined for them is your hallucination, kindled out of old churnings. You try to withdraw your objections to this necessary extermination, but you fall through again and discover that there is no extermination except in your mind, which is troubled and disordered by your obsession with the crime against your ancestors, and you sit up, for you wish to apologize to these friends of yours, these innocent scientists whom you have called murderers. And you fall through.

## Notes

In the introduction to the anthology *The Mirror of Infinity* (1970), Robert Silverberg asserted that the withdrawal of science fiction into the commercial pulp magazines had meant that much of it became "hollow and pointless adventure fiction"; on the other hand, in the introduction to *New Dimensions 1* (1971), while praising the freedom the genre has enjoyed within recent years, he suggests that "There is nothing virtuous in itself about writing a science fiction story in the manner of *Finnegan's Wake*. Importing the techniques of the literary avant-garde of two generations back is useful only if those techniques yield something valuable within the s-f context; otherwise copying Beckett and Virginia Woolf is no more significant than copying Gene Stratton Porter or Clarence Buddington Kelland." Like Ballard and Delany, he has experimented deliberately, as exemplified by his novels *Tower of Glass* (1970) and *Son of Man* (1971), always seeking for substance as well as innovation. In "Sundance" he achieves a twofold success, for it is not only a telling criticism of modern society but also a fine psychological study.

His point of departure and major premise are not startlingly new, though sf has seldom, if ever, phrased them precisely as he does. If the dream is fulfilled and man does colonize other worlds like the Earth, such extermination will be indispensable in order to clear the new land of those pests which would harm the work of "human agriculturalists," and food will be the most important commodity in that new colony (recall that Ballard's Abel made an estimate of food tonnage needed for the journey, discounting what would be required after "planet-

fall"). Such teams as this, be they investigating or exterminating, may have to make quick decisions—with the settlers pressing close behind them. Yet what if the creatures were so alien in appearance and biological make-up (to say nothing of the problem of communication) that man who has formed even Olympian gods in his image could not comprehend that the pests were intelligent, were "people?" As in Delany's "Driftglass," the choice of protagonist and narrative perspective becomes crucial.

What occurs could happen to no one but Tom Two Ribbons. Silverberg skillfully permits Herndon to make the original suggestion, but he later dismisses it as a "speculative hypothesis. To make conversation." Whether he is, as Tom suggests, a cruel man who "goes for the vulnerabilities," a part of the therapy, or merely indulging in a momentary fancy, his explanation has credibility, for he does not have the background which would cause him to brood upon the speculation; indeed, if for a moment he believed that "we were killing intelligent creatures, I'd run to an editor so fast I'd start an implosion." And the erasure would leave him untouched. But Tom is an Indian; even his name, Two Ribbons, indicates how bedraggled is his racial heritage. Moreover, though he has "not yet found his own mode of self-destruction" he has been a failure, has been subjected to a "personality reconstruct" after a breakdown, and may be particularly susceptible to hallucinogenic drugs, even the oxygen-liberating plants on the prairie. He is, superficially at least, as close to an anti-hero as science fiction has come.

Through his associations, then, Silverberg develops the analogy of the Eaters and the American Indian. Yet he skillfully adds to the dilemma. In one of the third-person sequences—an important factor in itself—he emphasizes that there was a difference between "the elimination of the Plains Indians . . . and the destruction of the bison . . . ; one regrets the butchering of millions of the noble brown woolly beasts, yes. But one feels outrage, not mere wistful regret, at what was done to the Sioux. There's a difference. Reserve your passions for the proper causes." In another of the third-person sequences, Tom moves into the compound and watches as the Eaters move through the fields "in a straggling herd, nibbling delicately . . ." Indian or bison?

To exploit this dilemma, Silverberg must solve a technical problem. No protagonist other than Tom can adequately develop the potential of "Sundance"; yet neither can a single perspective of him, particularly the first-person narrator, develop that potential. In either case the result would be too obviously a tale of social protest, the author

siding with the "unfortunate victims" of Western civilization. It would gain an audience, but it would be little more than a propaganda piece. Since he cannot look at the action convincingly through the eyes of another character, he maintains a close focus upon Tom, but varies the narrative perspective. He begins the story, "Today you liquidated about 50,000 Eaters in Sector A. You and Herndon flew east at dawn . . ." In this manner he gives vivid immediacy to the action (note his diction), but more important, he forces the reader into close psychological association with Tom; "you" and Tom are one and the same, thus compensating for your lack of his background. In addition, "you" are forced to watch closely the death of the Eaters, whom "you" have killed with neural pellets. In contrast, he objectifies other sequences (third person: *he*) to give essentially expository material about Tom himself, the other members of the team, and the physical appearance of the Eaters—as well as his basic analogy. Finally, through the first-person, he gives the greatest intensity of all to those sequences in which Tom observes and participates in the culture of the Eaters, culminating first in his attempt to prevent them from taking the pellets and then in his return to dance on the prairie with his brothers and the ghosts of his family until he falls. From one perspective or the other, everything concentrates upon Tom's flow of consciousness; scenes are realized only as he reports them. The reader shares his dilemma. Indian or bison?

At this point only does Silverberg return to his social theme. The team informs Tom that all of this has been part of his therapy. And you listen with him: ". . . if you could be made to participate in an imaginary modern extermination, if you could come to see it as a necessary operation, you'd be purged of your resentment and able to take your place in society as—" As what? Silverberg repeats the idea in terms of the transference of guilt. Which is more outrageous: to subject Tom Two Ribbons to such a therapy or to hide the extermination of the Eaters behind such a lie? Silverberg's artistry gives you and Tom the final troubled, ambiguous sequence so that you may share the uncertainty, the dilemmas.

From Henry James onward, writers and critics have given much attention to the problem of point-of-view. In "Sundance," Silverberg has shared their concern, and in doing so, has added significantly to the sf context.

