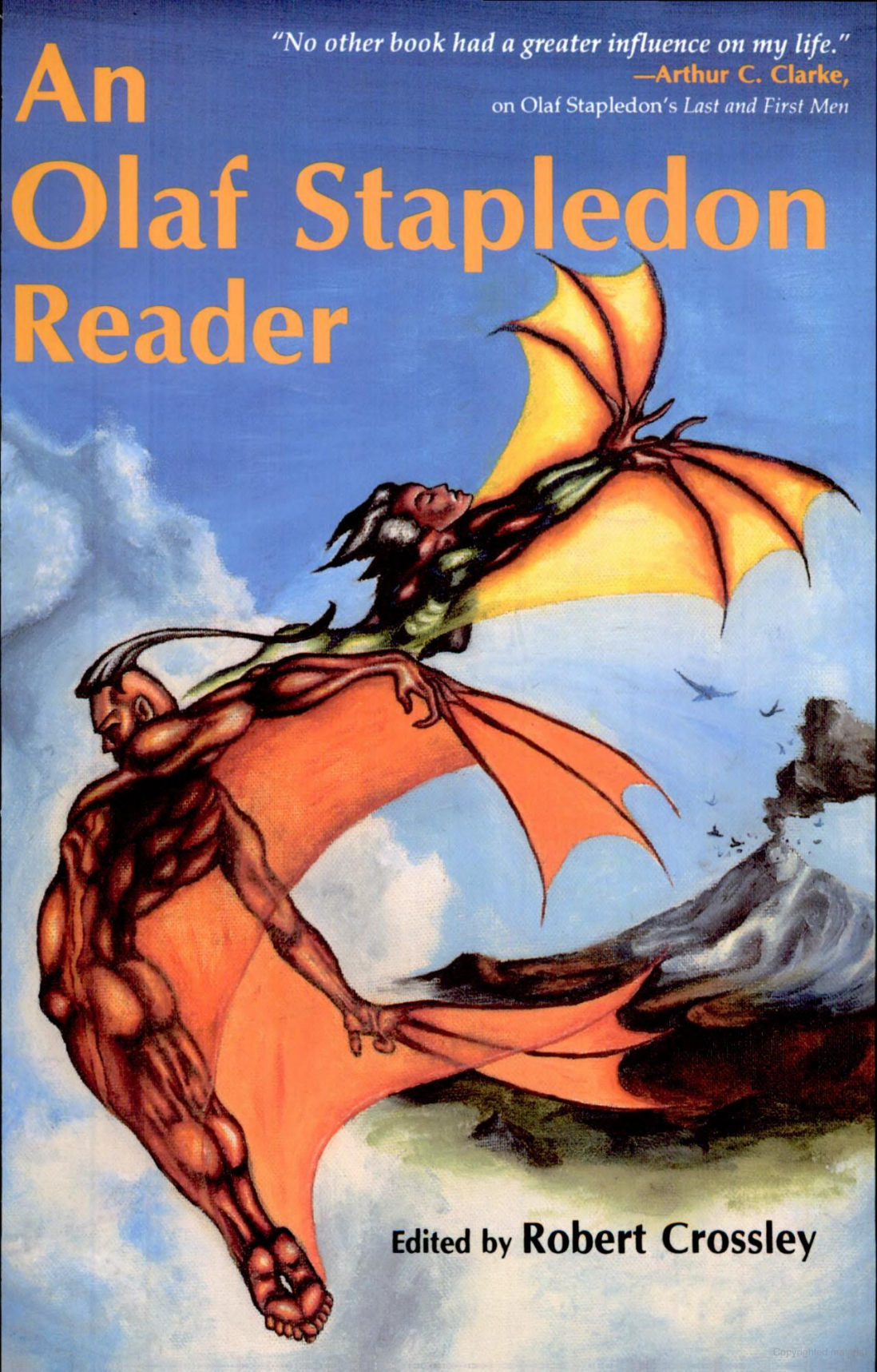
"No other book had a greater influence on my life."
—Arthur C. Clarke,
on Olaf Stapledon's *Last and First Men*

An Olaf Stapledon Reader



Edited by **Robert Crossley**

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The Flying Men
from *Last and First Men*

Last and First Men, *published in 1930, plots the course of the human species from the post–World War I era to the imminent destruction of the last human outpost in the solar system on Neptune two billion years from now. In the course of this history of the future, the narrator—a "last man" who is in telepathic possession of the mind of a "first man," Olaf Stapledon—traces the rises and fallings of humanity through eighteen different mutations, some the product of natural evolution, some the result of human intervention. One of the most poignant of Stapledon's inventions is the briefly told history of the "seventh men," a winged species engineered by their predecessor "sixth men," the first humans to achieve a high level of civilization on the hot island-world of Venus. Stapledon called* Last and First Men *"an essay in myth-creation," and the career of the seventh men provides an exquisite variation on the ancient myth of human flight. The story of Icarus is here generalized to an entire community, an entire species. Earlier chapters of* Last and First Men *depict the flying rituals of citizens of the First World State in the era just before the collapse of the culture of the First Men. But the history of the Seventh Men is the supreme example of the theme of flight. The diminutive, carefree flying men are unsurpassed embodiments of the beauty, obsession, and tragedy of the human desire for wings, and nowhere else in the book is there such a pointed contrast between biological and mechanical forms of aviation. A historian by training, Stapledon often echoed the actual past in his imagined futures; the climax of this episode 700 million years hence recalls the heroism of the vastly outnumbered Jews at the Masada fortress in 73 A.D. who chose mass suicide in preference to conquest by the besieging army of Rome.*

THROUGHOUT THEIR CAREER the Sixth Men had often been fascinated by the idea of flight. The bird was again and again their most sacred symbol. Their monotheism was apt to be worship not of a god-man, but of a god-bird, conceived now as the divine sea-eagle, winged with power, now as the giant swift, winged with mercy, now as a disembod-

ied spirit of air, and once as the bird-god that became man to endow the human race with flight, physical and spiritual.

It was inevitable that flight should obsess man on Venus, for the planet afforded but a cramping home for groundlings; and the riotous efflorescence of avian species shamed man's pedestrian habit. When in due course the Sixth Men attained knowledge and power comparable to that of the First Men at their height, they invented flying-machines of various types. Many times, indeed, mechanical flight was rediscovered and lost again with the downfall of civilization. But at its best it was regarded only as a makeshift. And when at length, with the advance of the biological sciences, the Sixth Men were in a position to influence the human organism itself, they determined to produce a true flying man. Many civilizations strove vainly for this result, sometimes half-heartedly, sometimes with religious earnestness. Finally the most enduring and brilliant of all the civilizations of the Sixth Men actually attained the goal.

The Seventh Men were pigmies, scarcely heavier than the largest of terrestrial flying birds. Through and through they were organized for flight. A leathery membrane spread from the foot to the tip of the immensely elongated and strengthened "middle" finger. The three "outer" fingers, equally elongated, served as ribs to the membrane; while the index and thumb remained free for manipulation. The body assumed the stream-lines of a bird, and was covered with a deep quilt of feathery wool. This, and the silken down of the flight-membranes, varied greatly from individual to individual in colouring and texture. On the ground the Seventh Men walked much as other human beings, for the flight-membranes were folded close to the legs and body, and hung from the arms like exaggerated sleeves. In flight the legs were held extended as a flattened tail, with the feet locked together by the big toes. The breastbone was greatly developed as a keel, and as a base for the muscles of flight. The other bones were hollow, for lightness, and their internal surfaces were utilized as supplementary lungs. For, like the birds, these flying men had to maintain a high rate of oxidation. A state which others would regard as fever was normal to them.

Their brains were given ample tracts for the organization of prowess in flight. In fact, it was found possible to equip the species with a system of reflexes for aerial balance, and a true, though artificial, instinctive aptitude for flight, and interest in flight. Compared with their makers their brain volume was of necessity small, but their whole neural system was very carefully organized. Also it matured rapidly, and was extremely facile in the acquirement of new modes of activity. This was very desirable; for the individual's natural life period was but fifty years, and in most cases it was deliberately cut short by some

impossible feat at about forty, or whenever the symptoms of old age began to be felt.

Of all human species these bat-like Flying Men, the Seventh Men, were probably the most care-free. Gifted with harmonious physique and gay temperament, they came into a social heritage well adapted to their nature. There was no occasion for them, as there had often been for some others, to regard the world as fundamentally hostile to life, or themselves as essentially deformed. Of quick intelligence in respect of daily personal affairs and social organization, they were untroubled by the insatiable lust of understanding. Not that they were an unintellectual race, for they soon formulated a beautifully systematic account of experience. They clearly perceived, however, that the perfect sphere of their thought was but a bubble adrift in chaos. Yet it was an elegant bubble. And the system was true, in its own gay and frankly insincere manner, true as significant metaphor, not literally true. What more, it was asked, could be expected of human intellect? Adolescents were encouraged to study the ancient problems of philosophy, for no reason but to convince themselves of the futility of probing beyond the limits of the orthodox system. "Prick the bubble of thought at any point," it was said, "and you shatter the whole of it. And since thought is one of the necessities of human life, it must be preserved."

Natural science was taken over from the earlier species with half-contemptuous gratitude, as a necessary means of sane adjustment to the environment. Its practical applications were valued as the ground of the social order; but as the millennia advanced, and society approached that remarkable perfection and stability which was to endure for many million years, scientific inventiveness became less and less needful, and science itself was relegated to the infant schools. History also was given in outline during childhood, and subsequently ignored.

This curiously sincere intellectual insincerity was due to the fact that the Seventh Men were chiefly concerned with matters other than abstract thought. It is difficult to give to members of the first human species an inkling of the great preoccupation of these Flying Men. To say that it was flight would be true, yet far less than the truth. To say that they sought to live dangerously and vividly, to crowd as much experience as possible into each moment, would again be a caricature of the truth. On the physical plane, indeed, "the universe of flight" with all the variety of peril and skill afforded by a tempestuous atmosphere, was every individual's chief medium of self-expression. Yet it was not flight itself, but the spiritual aspect of flight, which obsessed the species.

In the air and on the ground the Seventh Men were different be-

ings. Whenever they exercised themselves in flight they suffered a remarkable change of spirit. Much of their time had to be spent on the ground, since most of the work upon which civilization rested was impossible in the air. Moreover, life in the air was life at high pressure, and necessitated spells of recuperation on the ground. In their pedestrian phase the Seventh Men were sober folk, mildly bored, yet in the main cheerful, humorously impatient of the drabness and irk of pedestrian affairs, but ever supported by memory and anticipation of the vivid life of the air. Often they were tired, after the strain of that other life, but seldom were they despondent or lazy. Indeed, in the routine of agriculture and industry they were industrious as the wingless ants. Yet they worked in a strange mood of attentive absentmindedness; for their hearts were ever in the air. So long as they could have frequent periods of aviation, they remained bland even on the ground. But if for any reason such as illness they were confined to the ground for a long period, they pined, developed acute melancholia, and died. Their makers had so contrived them that with the onset of any very great pain or misery their hearts should stop. Thus they were to avoid all serious distress. But, in fact, this merciful device worked only on the ground. In the air they assumed a very different and more heroic nature, which their makers had not foreseen, though indeed it was a natural consequence of their design.

In the air the flying man's heart beat more powerfully. His temperature rose. His sensation became more vivid and more discriminate, his intelligence more agile and penetrating. He experienced a more intense pleasure or pain in all that happened to him. It would not be true to say that he became more emotional; rather the reverse, if by emotionality is meant enslavement to the emotions. For the most remarkable feature of the aerial phase was that this enhanced power of appreciation was dispassionate. So long as the individual was in the air, whether in lonely struggle with the storm, or in the ceremonial ballet with sky-darkening hosts of his fellows; whether in the ecstatic love dance with a sexual partner, or in solitary and meditative circlings far above the world; whether his enterprise was fortunate, or he found himself dismembered by the hurricane, and crashing to death; always the gay and the tragic fortunes of his own person were regarded equally with detached aesthetic delight. Even when his dearest companion was mutilated or destroyed by some aerial disaster, he exulted; though also he would give his own life in the hope of effecting a rescue. But very soon after he had returned to the ground he would be overwhelmed with grief, would strive vainly to recapture the lost vision, and would perhaps die of heart failure.

Even when, as happened occasionally in the wild climate of Venus,

a whole aerial population was destroyed by some world-wide atmospheric tumult, the few broken survivors, so long as they could remain in the air, exulted. And actually while at length they sank exhausted toward the ground, toward certain disillusionment and death, they laughed inwardly. Yet an hour after they had alighted, their constitution would be changed, their vision lost. They would remember only the horror of the disaster, and the memory would kill them.

No wonder the Seventh Men grudged every moment that was passed on the ground. While they were in the air, of course, the prospect of a pedestrian interlude, or indeed of endless pedestrianism, though in a manner repugnant, would be accepted with unswerving gaiety; but while they were on the ground, they grudged bitterly to be there. Early in the career of the species the proportion of aerial to terrestrial hours was increased by a biological invention. A minute food-plant was produced which spent the winter rooted in the ground, and the summer adrift in the sunlit upper air, engaged solely in photosynthesis. Henceforth the populations of the Flying Men were able to browse upon the bright pastures of the sky, like swallows. As the ages passed, material civilization became more and more simplified. Needs which could not be satisfied without terrestrial labour tended to be outgrown. Manufactured articles became increasingly rare. Books were no longer written or read. In the main, indeed, they were no longer necessary; but to some extent their place was taken by verbal tradition and discussion, in the upper air. Of the arts, music, spoken lyric and epic verse, and the supreme art of winged dance, were constantly practised. The rest vanished. Many of the sciences inevitably faded into tradition; yet the true scientific spirit was preserved in a very exact meteorology, a sufficient biology, and a human psychology surpassed only by the second and fifth species at their height. None of these sciences, however, was taken very seriously, save in its practical applications. For instance, psychology explained the ecstasy of flight very neatly as a febrile and "irrational" beatitude. But no one was disconcerted by this theory; for every one, while on the wing, felt it to be merely an amusing half-truth.

The social order of the Seventh Men was in essence neither utilitarian, nor humanistic, nor religious, but aesthetic. Every act and every institution were to be justified as contributing to the perfect form of the community. Even social prosperity was conceived as merely the medium in which beauty should be embodied, the beauty, namely, of vivid individual lives harmoniously related. Yet not only for the individual, but even for the race itself (so the wise insisted), death on the wing was more excellent than prolonged life on the ground. Better, far better, would be racial suicide than a future of pedestrianism. Yet

though both the individual and the race were conceived as instrumental to objective beauty, there was nothing religious, in any ordinary sense, in this conviction. The Seventh Men were completely without interest in the universal and the unseen. The beauty which they sought to create was ephemeral and very largely sensuous. And they were well content that it should be so. Personal immortality, said a dying sage, would be as tedious as an endless song. Equally so with the race. The lovely flame, of which we all are members, must die, he said, must die; for without death she would fall short of beauty.

For close on a hundred million terrestrial years this aerial society endured with little change. On many of the islands throughout this period stood even yet a number of the ancient pylons, though repaired almost beyond recognition. In these nests the men and women of the seventh species slept through the long Venerian nights, crowded like roosting swallows. By day the same great towers were sparsely peopled with those who were serving their turn in industry, while in the fields and on the sea others laboured. But most were in the air. Many would be skimming the ocean, to plunge, gannet-like, for fish. Many, circling over land or sea, would now and again stoop like hawks upon the wild-fowl which formed the chief meat of the species. Others, forty or fifty thousand feet above the waves, where even the plentiful atmosphere of Venus was scarcely capable of supporting them, would be soaring, circling, sweeping, for pure joy of flight. Others, in the calm and sunshine of high altitudes, would be hanging effortlessly upon some steady up-current of air for meditation and the rapture of mere percipience. Not a few love-intoxicated pairs would be entwining their courses in aerial patterns, in spires, cascades, and true-love knots of flight, presently to embrace and drop ten thousand feet in bodily union. Some would be driving hither and thither through the green mists of vegetable particles, gathering the manna in their open mouths. Companies, circling together, would be discussing matters social or aesthetic; others would be singing together, or listening to recitative epic verse. Thousands, gathering in the sky like migratory birds, would perform massed convolutions, reminiscent of the vast mechanical aerial choreography of the First World State, but more vital and expressive, as a bird's flight is more vital than the flight of any machine. And all the while there would be some, solitary or in companies, who, either in the pursuit of fish or wildfowl, or out of pure devilment, pitted their strength and skill against the hurricane, often tragically, but never without zest, and laughter of the spirit.

It may seem to some incredible that the culture of the Seventh Men should have lasted so long. Surely it must either have decayed through mere monotony and stagnation or have advanced into richer experi-

ence. But no. Generation succeeded generation, and each was too short-lived to outlast its young delight and discover boredom. Moreover, so perfect was the adjustment of these beings to their world, that even if they had lived for centuries they would have felt no need of change. Flight provided them with intense physical exhilaration, and with the physical basis of a genuine and ecstatic, though limited, spiritual experience. In this their supreme attainment they rejoiced not only in the diversity of flight itself, but also in the perceived beauties of their variegated world, and most of all, perhaps, in the thousand lyric and epic ventures of human intercourse in an aerial community.

The end of this seemingly everlasting elysium was nevertheless involved in the very nature of the species. In the first place, as the ages lengthened into aeons, the generations preserved less and less of the ancient scientific lore. For it became insignificant to them. The aerial community had no need of it. This loss of mere information did not matter so long as their condition remained unaltered; but in due course biological changes began to undermine them. The species had always been prone to a certain biological instability. A proportion of infants, varying with circumstances, had always been misshapen; and the deformity had generally been such as to make flight impossible. The normal infant was able to fly early in its second year. If some accident prevented it from doing so, it invariably fell into a decline and died before its third year was passed. But many of the deformed types, being the result of a partial reversion to the pedestrian nature, were able to live on indefinitely without flight. According to a merciful custom these cripples had always to be destroyed. But at length, owing to the gradual exhaustion of a certain marine salt essential to the high-strung nature of the Seventh Men, infants were more often deformed than true to type. The world population declined so seriously that the organized aerial life of the community could no longer be carried on according to the time-honoured aesthetic principles. No one knew how to check this racial decay, but many felt that with greater biological knowledge it might be avoided. A disastrous policy was now adopted. It was decided to spare a carefully selected proportion of the deformed infants, those namely which, though doomed to pedestrianism, were likely to develop high intelligence. Thus it was hoped to raise a specialized group of persons whose work should be biological research untrammelled by the intoxication of flight.

The brilliant cripples that resulted from this policy looked at existence from a new angle. Deprived of the supreme experience for which their fellows lived, envious of a bliss which they knew only by report, yet contemptuous of the naïve mentality which cared for nothing (it seemed) but physical exercise, love-making, the beauty of nature, and

the elegances of society, these flightless intelligences sought satisfaction almost wholly in the life of research and scientific control. At the best, however, they were a tortured and resentful race. For their natures were fashioned for the aerial life which they could not lead. Although they received from the winged folk just treatment and a certain compassionate respect, they writhed under this kindness, locked their hearts against all the orthodox values, and sought out new ideals. Within a few centuries they had rehabilitated the life of intellect, and, with the power that knowledge gives, they had made themselves masters of the world. The amiable fliers were surprised, perplexed, even pained; and yet withal amused. Even when it became evident that the pedestrians were determined to create a new world-order in which there would be no place for the beauties of natural flight, the fliers were only distressed while they were on the ground.

The islands were becoming crowded with machinery and flightless industrialists. In the air itself the winged folk found themselves outstripped by the base but effective instruments of mechanical flight. Wings became a laughing stock, and the life of natural flight was condemned as a barren luxury. It was ordained that in future every flier must serve the pedestrian world-order, or starve. And as the cultivation of wind-borne plants had been abandoned, and fishing and fowling rights were strictly controlled, this law was no empty form. At first it was impossible for the fliers to work on the ground for long hours, day after day, without incurring serious ill-health and an early death. But the pedestrian physiologists invented a drug which preserved the poor wage-slaves in something like physical health, and actually prolonged their life. No drug, however, could restore their spirit, for their normal aerial habit was reduced to a few tired hours of recreation once a week. Meanwhile, breeding experiments were undertaken to produce a wholly wingless large-brained type. And finally a law was enacted by which all winged infants must be either mutilated or destroyed. At this point the fliers made an heroic but ineffectual bid for power. They attacked the pedestrian population from the air. In reply the enemy rode them down in his great aeroplanes and blew them to pieces with high explosive.

The fighting squadrons of the natural fliers were finally driven to the ground in a remote and barren island. Thither the whole flying population, a mere remnant of its former strength, fled out of every civilized archipelago in search of freedom: the whole population—save the sick, who committed suicide, and all infants that could not yet fly. These were stifled by their mothers or next-of-kin, in obedience to a decree of the leaders. About a million men, women, and children, some of whom were scarcely old enough for the prolonged flight,

now gathered on the rocks, regardless that there was not food in the neighbourhood for a great company.

Their leaders, conferring together, saw clearly that the day of Flying Man was done, and that it would be more fitting for a high-souled race to die at once than to drag on in subjection to contemptuous masters. They therefore ordered the population to take part in an act of racial suicide that should at least make death a noble gesture of freedom. The people received the message while they were resting on the stony moorland. A wail of sorrow broke from them. It was checked by the speaker, who bade them strive to see, even on the ground, the beauty of the thing that was to be done. They could not see it; but they knew that if they had the strength to take wing again they would see it clearly, almost as soon as their tired muscles bore them aloft. There was no time to waste, for many were already faint with hunger, and anxious lest they should fail to rise. At the appointed signal the whole population rose into the air with a deep roar of wings. Sorrow was left behind. Even the children, when their mothers explained what was to be done, accepted their fate with zest; though, had they learned of it on the ground, they would have been terror-stricken. The company now flew steadily West, forming themselves into a double file many miles long. The cone of a volcano appeared over the horizon, and rose as they approached. The leaders pressed on towards its ruddy smoke plume; and unflinchingly, couple by couple, the whole multitude darted into its fiery breath and vanished. So ended the career of Flying Man.

Nutrition

from *Last Men in London*

Stapledon's second scientific romance was a commercial disappointment after the success of Last and First Men. *His editor had asked for a sequel, but the book Stapledon ended up writing had little in common with his first work of fiction except for its title and the device of telepathic narration.* Last Men in London, *focused largely on World War I and its psychological impact on a war veteran named Paul, has few of the extravagances of* Last and First Men. *But there are occasional flashes of Stapledonian invention and wit, particularly in the narrator's evocation of life on Neptune in the far future. The following comic fantasy, to which I have given the title "Nutrition," is*

concerned with the sexual education of Paul by his Neptunian mental parasite; it gives full rein to the author's interests in imaginative anthropology and cultural relativism.

ONE OF THE MOST DIFFICULT FACTS for the Neptunian explorer to grasp about primitive minds is their obsession and their abject guilt and disgust in respect of bodily appetites. In the constitution of the last human species the excess energy of these appetites is very largely sublimated, innately, into the spiritual and intellectual life. On the other hand, whenever they do demand direct satisfaction, they are frankly and zestfully gratified. In Paul's species it was the sexual appetite that caused trouble. Now it did not suit me that Paul should become tangled inextricably in sex. His whole generation, I knew, was going to develop along the lines of sex mania, in revulsion from the prudery of its predecessors. But it was necessary that Paul should maintain a true balance, so that his spirit's energies should be free to direct themselves elsewhere.

The method by which I brought peace to Paul's troubled mind was easy to me, though disturbing to him. Whenever he began to worry himself with guilty fears, I would force upon his imagination scenes from another world, in which not sex but nutrition was the deed of supreme uncleanness and sanctity. Little by little I pieced together in his mind a considerable knowledge of an early Neptunian species whose fantastic culture has many points in common with your own. Let me here tell you briefly of that culture.

On Neptune, then, there once lived, or from your point of view, there will live, a race of human beings which attained a certain affluence and social complexity, but was ever hampered by its morbid interest in nutrition. By what freakish turns of fortune this state of affairs was brought about, I need not pause to describe. Suffice it that physiological changes had produced in this human species an exaggerated mechanism of hunger. This abnormality saddled all its members with a craving for food much in excess of biological need; and from the blundering social repression of this craving there arose a number of strange taboos and perversions. By the time this Neptunian species had attained civil life, the function of nutrition had become as perverse and malignant as the function of reproduction in your own society. No reference might be made to it in public, save to its excretory side, which was regarded as a rite of purification. Eating became a private and vaguely obscene act. While in many social situations sexual intercourse was a recognized means of expression and diversion, and even drinking was permitted in the less puritanical circles so long as it was performed through the nose, eating in the presence of another

person was not tolerated. In every home a special privy was set aside for eating. This was stocked during the night by the public food carriers, who constituted the lowest caste of society. In place of your chastity ideal there arose a fiction that to refrain from eating was virtuous, and that the most holy persons could live without eating at all. Even ordinary folk, though pardoned for occasional indulgence, were supposed to refrain from the filthy act as far as possible. Repressed nutrition had by now coloured the whole life of the race. The mouth occupied in its culture much the same position as the phallus with you. A vast and subtle symbolism, like that which in your culture is associated with the sacred and obscene reproductive act, was generated in this case by the sacred and obscene nutritive act. Eating became at once a sin and an epitome of the divine power; for in eating does not the living body gather into itself lifeless matter to organize it, vitalize it? The mouth was, of course, never exposed to view. The awful member was concealed behind a little modesty apron, which was worn below the nose. In prehistoric times the lips had formed the chief visual stimulus to sexual interest, and like the rump of the baboon had developed lavish coloration and turgescence. But very early in the cultural development of the species the modesty apron became universal. Even when the rest of the body was unclad, this garment was retained. And just as in your culture the notorious fig-leaf is vaguely suggestive of that which it conceals, so, in this Neptunian culture, the conventionally decorated covering of the mouth came to mimic furtively the dread orifice itself. Owing to the fact that in polite society no sound might be made which betrayed movement of the lips, speech became distorted and debased. One curious consequence of this obscenity of the mouth was the peculiar status of kissing. Though sexual promiscuity was almost universal, kissing was a deadly sin, except between man and wife. A kiss, bestowed in privacy and darkness, was the true consummation of marriage, and was something infinitely more desirable and more disturbing than the procreative act itself. All lovers longed to be united in a kiss; or, if they were innocents, they looked for some unknown fulfilment, which they vaguely and guiltily felt must be somehow connected with the mouth. Coitus they regarded merely as an innocent and peculiarly delightful caress; but the kiss was the dark, exquisite, sacred, mystically significant, forbidden fruit of all their loving. It was a mutual devouring, the act in which, symbolically, the lover took the substance of the other within his or her own system. Through this connexion with romantic love the kiss gathered to itself all that obscure significance of tender personal relations, of spiritual communion between highly developed personalities, which in your world the same romantic love may confer on

coitus. Further, since, like your Trobriand Islanders, the less sophisticated races of this species were often ignorant of the connexion between the sexual act and conception, and since, as with those islanders, sexual intercourse outside the marriage bond often failed to produce offspring, it was commonly believed in the more primitive of these Neptunian societies that the true reproductive act was the kiss. Consequently conception and child-birth came to be endowed with the same mystery, sanctity, and obscenity as nutrition. Sex, on the other hand, remained delightfully uncontaminated. These traditions maintained their power even in civilized societies, which had long ago realized the truth about parenthood. Children were carefully instructed in the hygiene of sex, and encouraged to have blithe sexual relations as soon as they needed that form of expression. But in respect of nutrition they were left in disastrous ignorance. As infants they were suckled, but in strict seclusion. Later they were taken to the food-privy and fed; but they were trained never to mention food in public and of course never to expose their mouths. Obscure and terrifying hints were let fall about the disastrous effects of gustatory self-indulgence. They were told not to go to the privy more than once a day, and not to stay longer than necessary. From their companions they gathered much distorted information about eating; and they were likely to contract diverse kinds of nutritive perversions, such as chewing stones and earth, biting one another or themselves for the taste of blood. Often they contracted such a prurient mania of thumb-sucking, that mouth and thumb would fester. If they escaped these perversions, it was by means of ignorant licentiousness in the food-privy. In consequence of this they were prone to contract serious digestive disorders, which moreover, if discovered, inevitably brought them into contempt. In either case they incurred a shattering sense of guilt, and contracted by auto-suggestion many of the symptoms which rumour attributed to their vice. In maturity they were likely to become either secret gourmets or puritans.

The Story of John

The earliest version of Stapledon's fantasy of a race of "supermen" appears as a rejected eleven-page chapter in the manuscript of Last Men in London. *In that book the narrator from Neptune had observed the presence among the "first men" of the modern era certain physically odd but mentally advanced beings, many of whom were confined to mental institutions. Among these*

forerunners of "homo superior" the narrator sketches the life-history of one in particular—the character whom Stapledon would make the center of his 1935 novel Odd John. *Although many details were added in the course of transforming a chapter into an entire novel, "The Story of John" enacts the essential premise of the longer work: that a fantasy about biological mutation might serve as a satiric parable about politics and morality.*

IN ENGLAND a few years before the war a baby was born in whose nature there was combined very superior brain capacity, a remarkable improvement of visual discrimination and manual dexterity, together with a superb physique. He was also blessed with intelligent parents, who had moreover already had the experience of bringing up two older children.

The career of this infant, whom I will call John, deserves to be told in detail, but here I can only touch on its main features. He soon revealed to his astonished parents very remarkable powers, for in his case slow development of bodily appearance was combined with a startling mental precocity. In observing his infancy I found that this precocity was as a matter of fact due not to speed of development, but to the immensely high calibre of his slowly maturing brain. Before he could walk he was crawling about the lawn, studying at first hand the biology of daisies, worms and beetles. Still a toddler, he was asking philosophical questions and laughing at the inept answers of those who tried to help him. At eight, when he looked rather like a large-headed child of five, he had the brightness, hilarity and impishness of a vigorous schoolboy of thirteen, strongly combined with the dawn of interests which would have marked out a youth of twenty as definitely beyond his years. His parents educated him at home, for no school could place him. Or rather he educated himself, for he very soon displayed an inflexible determination to follow his own bent, using his parents only as living handbooks and bibliographies. They themselves were well versed in the best thought and the best feeling of their civilization, and had the sense to help their amazing third-born with humility and affection. They wisely kept his powers from public notice, and used all the tact at their command to prevent him from coming into conflict with authority or public opinion. As the years advanced, however, there began to be serious conflicts between John and his parents, for as he gained knowledge and self-confidence he began to proclaim abroad ideas that were altogether intolerable to the normal species and to indulge in adventures of a most daring and reprehensible nature.

At the age of fourteen John decided that he was destined for a momentous career, but exactly what, he did not yet know. His first

task, at any rate, was to make himself independent, in fact to make money. By innate constitution he was entirely without self-bias, but having decided that he was a unique being, and one of supreme importance, he pursued self-interest with a relentlessness that would have shocked the most cynical profiteer. It would take too long to recount the series of incredible undertakings by which this seeming child of eight acquired a fortune. This side of his life he kept hidden from his parents, who imagined that on his frequent absences from home he was innocently camping and tramping in the neighbouring hills. In spite of all the brilliance and insight which distinguished him from his fellows he was at this time still at heart a child with all the schoolboy's lust of adventure. Consequently this early phase of his career was something like a modernised and grossly exaggerated version of the story of Robin Hood. By a number of ingenious burglaries, he secured jewelry and plate from the houses of the rich. With the aid of a motor bicycle he brought off several daring highway robberies. On one of his burglaries his plans were upset by a midnight telephone call for the owner of the house. When the good citizen encountered John in the hall with his swag, the terrible child remarked that as he was engaged on supremely important work, and his identity must not be revealed, he must kill the intruder, though with regret. He accordingly shot the astounded man, and fled.

When he had already committed several sensational robberies, he decided that this kind of thing was too risky. He therefore turned his attention to trade. He was of course wonderfully dextrous with his hands, and extremely inventive. After studying his mother's household arrangements, he devised a number of amazingly simple and useful household implements. Specimens of these he made by hand out of wood, metal, wicker, cardboard, as was required. He then applied for patents, and got in touch with manufacturers and hardware merchants, by post, lest his childish appearance should cause undue interest. Some of these patents he sold, others he kept to work on his own account. He worked, of course, by hand, but very rapidly. He was greatly entertained when his mother bought some of his handiwork at a local shop, without knowing its origin.

Presently he gave up handicraft for profit, but continued to make an increasing income by royalties on his inventions. As a pastime he wrote and published a number of highly original detective stories, under a pseudonym different from his trading pseudonym. These works turned out to be best sellers. His fortune was made. He increased it by publishing as a farcical novel a slightly doctored account of his own career and his unique nature. This he did partly in the hope that if there were any others of his kind, they might get in touch with

him. The book was translated into several languages, and did in due season bring him into relations with several other supernormal individuals.

When he was sixteen, and looked much younger, John underwent a spiritual crisis, which was accompanied by much solitary meditation, and much study. From this phase he emerged in six months with the conviction that he had a great part to play in the life not merely of one planet but of the universe. He determined to found a new and more sane, more noble human species. Henceforth all his actions were rigorously guided by this purpose. His first aim was to discover if there were any others at all like him in the world. As he was thoroughly convinced that the normal species, though often amiable so long as all went according to custom, was capable of unimaginative persecution of beings that offended against its code, he was extremely anxious to avoid attracting attention. He therefore dared not get into personal relations with the scientists who might have helped him. Through the post, however, he made inquiries of various anthropological institutions, but vainly. He therefore took to casual wanderings in the towns and villages of England, looking for odd creatures like himself. In this way, and through his autobiography, he made contact with several of the abortive supermen described in the previous section. But they were all too old or too crippled to serve with him. Presently he found a boy of ten and three girls ranging from six to twelve. They were healthy and unspoiled; and though they lacked John's diabolic resolution, they were obviously products of a superior mutation. With them and one whom the autobiography had revealed, he discussed momentous plans.

He now persuaded his parents to take him on the Continent, since with his juvenile appearance he could not go alone. Touring in almost every country in Europe, he discovered twenty-seven suitable individuals of both sexes, between the ages of six and seventeen. With these he kept in touch during the next two years, gradually thrashing out with them the common policy. The aim was to found a minute colony in some remote part of the world, where there would be a chance of escaping the notice of the normal species. For it was by now terribly clear to the young adventurers not only that the normal race was past help, but that it would never permit a sane community to live in its world. The purpose of the colony was to be threefold. The most urgent aim was of course to devise a self-sufficing and harmonious society, founded on a careful study of the nature of the strange beings who were to compose it. It was also proposed to create by careful study a deeply novel culture, which, incorporating the best cultures of the First Men, should also be suitable to the superior mentality of a new species.

Finally, in due season, and after careful investigation into the biological nature of the various members, the colony must breed a new generation.

Much would have to be done before the adventure was undertaken. All the chosen must prepare themselves for the new life. Each must become expert in some occupation which would be needed by the colony; and each must become well versed in the best culture of his or her native land. Thus some were to become skilled in the principles of agriculture, some were to become metal workers, some architects, some navigators. Some were to acquire all possible knowledge of medicine and biology. All were to study contemporary thought and vitalise it with intelligence of superior beings. In this connection the adventurers were much exercised about the thought of the East. Very conscious of the errors of the West, they surmised that the East, with all its failings, must have traces of an insight which Western man wholly lacked. Certain members, therefore, were deputed to go to India and China to seek acquaintance with those very dissimilar cultures; and at the same time to search for any superior individuals in Eastern lands. John himself was to share in this very important work. By this time he had taken his parents into his confidence, except about the murder, and had revealed to them that he had a bank account and many thousands of pounds invested. Bewildered, horrified, and secretly very proud of their offspring, they finally agreed to play a humble but useful part in the founding of the colony. Their first task was to "take" John for a tour in the East. After a year's absence John returned, greatly impressed with the wisdom and the folly of India, but without having discovered any prodigies like himself. This was but what he expected, owing to the immense difficulties of the search.

When John was twenty, and had the appearance of a boy of fourteen, he designed a small motor vessel and had her built on the Clyde. In this craft he and a dozen of his kind, male and female, went exploring in the South Pacific. After a long search they discovered a suitable sub-tropical island, bought out the small native population, and returned to England to buy tools and materials and to pick up the rest of the party.

At last the unique colony was founded. Of its early adventures I must not here tell, though they form a superb epic of courage and humour, and at the same time an object lesson of the comparative ease with which a superior mentality can surmount difficulties, both practical and psychological, which to the normal species would have spelled certain defeat. Here I must be content with the bald assertion that after an initial period of hardship the little colony became a miniature utopia, and one in which the pursuit of an all-dominating purpose

made stagnation impossible. This purpose, the founding of a new human race, and a new world, could not, of course, be seriously advanced till many generations had passed. Meanwhile there was much hard manual toil, a constant call for practical inventiveness, and for delicate adjustment of personal relations. The members were all physically adolescents, and mentally in a ferment of interest in one another, both in their bodily form and in their spiritual individuality. They had to work out a code of sexual morality, and the process inevitably entailed suffering. One serious problem was that of the age at which breeding might begin. Further, what was to be their span of life before senility should set in? Did slow development promise longevity? It was determined at any rate that no member should permit himself to live till he became a burden to the colony and to himself. These backward yet precocious young people were also immensely excited by the cooperative work of bringing their superior intellects to bear upon the cultures which they had brought with them from the normal race, and in working out the beginnings of a loftier wisdom. They kept in touch with the world partly by radio and literature, partly by frequent travelling, always under the ostensible control of some parent or other adult.

All too soon the colony came into serious conflict with the outside world. The first alarm was caused by the foundering of a tramp steamer on the island. She had lost her propeller, and drifted far from the ordinary tracks of vessels. While the crew were struggling toward the shore in heavy seas, the colonists decided on a plan of action. If these sailors were rescued and sent home, they would blab about the pack of children living without adult control, copulating to their hearts' content, and actually bearing infants. It was therefore hastily determined that none of the crew must survive. All those who clambered on to the rocks were therefore shot.

A few months later a British war ship, inspecting remote possessions of the Crown, was amazed to find the island inhabited not by natives but by white children of odd appearance. At first the commander proposed to transport the colonists at once, but he was persuaded merely to go away and report. The horrified British Government managed to prevent the story from reaching the daily papers, fearing a scandal about child vice on its territory. A ship was hastily sent to bring all the children home. Surprisingly the ship returned without them. The commander, bewildered and stammering under cross-examination, appeared to have been hypnotised by the persuasiveness of the leader of the colony.

Meanwhile the Colony was anxiously debating how to deal with the situation. From their point of view their case was much like that of pioneers in a jungle inhabited by wild beasts, with the difference that

in this case the beasts had guns, and also some rudimentary power of imagination. It was decided that, for the present, the only thing to do was to appeal to the imagination of every expedition that was sent to the island. In due season another ship arrived. Her commander was in no mood for nonsense, but he made the mistake of consenting to see over the colony before evacuating it. He and his brother officers returned to their vessel in sore distress. The persuasiveness of these great children had convinced them that if they carried out their orders they would be committing a crime against something which they could not clearly conceive but which they had been made to recognize as overwhelmingly precious. Against orders the commander brought his ship home without the colonists. He was courtmartialed; and subsequently he shot himself.

Unfortunately for the Colony the Russian Secret Service had got wind of this minor trouble of the British Government. It was thought that to rescue the young people from the oppression of British imperialism might have propaganda value. Accordingly an expedition was sent to offer to establish the colony in a Russian island in the North Pacific. The British Government found out about this manoeuvre, and resolved to act with vigour. A more resolute, more brutal officer was sent to arrest the children. He discovered a trading schooner in the harbour; and, landing in person with a detachment of blue-jackets, he found that Bolshevik spies were in the act of trying to abduct the children.

John and his companions knew well that if once they got into the clutches of any section of the inferior species, their freedom would be lost forever. It would be impossible to work out for themselves a social order and a culture suited to their nature. At every turn they would offend their masters. On the whole the Russians offered more hope than the British, for the Russians would re-establish the colony; but it would obviously come under strict Bolshevik control. Anyhow it was clear that the British would not let them go. But if once they boarded the British ship, they would be virtually prisoners forever. Thus it was perfectly clear that their great adventure must now find its conclusion. There was only one thing left for them to do, to tell the world their story, and to bring it to such a dramatic end that it would not be overlooked. Thus it would be incorporated in the knowledge of the inferior species; and if, as seemed probable, nature should in time produce other superior mutations, these their spiritual successors would profit by their fate.

While the British ship was entering the roadstead, John and his friends were telling the Russians all about their venture, and entrusting them with documents. When the British commander arrived with his

blue-jackets, John tried to use his persuasive arts on him, as on his predecessors. The officer cut him short and ordered the arrest of the whole party, including the Russians. At once all the colonists produced pistols and threatened to shoot themselves if they were touched. Two blue-jackets approached the nearest lad. He shot himself through the head. The blue-jackets hung back. The commander urged them on. They rushed at a girl to seize her weapon, but before they reached her she shot herself. Once more John began using his hypnotic, his diabolic, persuasiveness. Again the commander insisted on arrest, but the blue-jackets stood irresolute, murmuring. The commander himself advanced to seize John. A girl standing beside him shot herself. The commander hung back, the blue-jackets openly protesting. The commander began to parley with John and the others, urging them to come peaceably, as no one wished them harm. The result was merely that John's reply further disquieted the blue-jackets. In a fury the commander drew his automatic pistol, shot at the weapon-hand of the nearest boy, and seized him. John shot the boy through the head. The commander determined to try a new method. He posted guards at the doors of the building, and returned to the ship. He now referred to his Government by radio for further instructions, describing the recent events in code. He was told to take the children, alive or dead.

On returning to the shore with another party of blue-jackets, picked for their insensitivity, he was amazed to find that one of the guards was stepping aside to let the children escape. Hastily he bottled them in with his fresh blue-jackets. Still further to his amazement the former guards came crowding round him to plead for the children, regardless of discipline. He had them arrested. Evidently it was not practicable to keep these strange juveniles under restraint. After a moment's hesitation he decided to bring the whole wretched business to an end. Telling the children that he had orders to take them alive or dead, he once more ordered his men to arrest them. The earlier drama was repeated. When seven more of the children lay dead, including a young mother who destroyed herself and her infant with one bullet, the blue-jackets (picked for insensitivity) began to murmur. By now the commander himself was extremely distressed. He could think of nothing better than to take all his men back to the ship, along with the arrested Russian "spies." He then seized the schooner, and the motor yacht which was moored at the pier. Explaining by radio to his Government that, owing to the mutinous state of his crew, he could not carry out instructions, he put to sea.

The Colony burnt its dead and took up the threads of its normal life, well aware that such expensive victories could not for long postpone the end.

Meanwhile the amazed British authorities were extremely anxious to destroy the Colony before Russia could procure concrete proof of the scandal. A hint was dropped in the right quarter, and presently a disreputable little steamer arrived at the island "to trade." It was soon clear, however, that this was not her real purpose, for she landed several boat loads of hooligans, seemingly of all races. This time the weapons of the Colony were turned against the invaders, and with such effect that they were driven back into their boats, and forced to put to sea.

There followed another month of respite, during which the much reduced Colony managed to complete a radio transmission station and to start broadcasting its story. Unfortunately the story was so incredible that the very few who heard it took it for a bad joke. After the first day the authorities saw to it that the fantastic stuff was shouted down by other stations.

At length a larger vessel arrived at the island. A swarm of toughs landed with machine guns. John and his friends retired to a little fortress that they had constructed, and used their scanty ammunition to such effect that for three days they kept off the enemy. But at last when there was but one cartridge left for each surviving member, they destroyed themselves.

Thus, as on other occasions of biological history, did the higher type succumb to the type that was fittest to survive in the circumstances.

Nautiloids

from *Star Maker*

Regarded by many readers and by the author as Stapledon's masterpiece, Star Maker *is at the farthest remove imaginable from the traditional novel of character. Designed as "an imaginative sketch of the dread but vital whole of things,"* Star Maker *is a visionary history of the universe. The narrator, traveling through space-time on pilgrimage, inhabits the consciousnesses of a stunning variety of intelligent beings as he seeks to know the ultimate purpose of life and mind. The philosophical conception of this extraordinary quest has dominated commentaries on* Star Maker, *but the novelist Naomi Mitchison —in letters written to Stapledon while the book was in progress in the 1930s —praised its power of invention. "The thing I believe you are so immensely*

good at is convincing detail—*almost mechanical detail—about something one knows nothing about and hasn't even imagined." Mitchison's favorite chapter was called "Worlds Innumerable," from which the following excerpt is taken. It is a tour de force of biological and cultural fantasy. The "living ships" the narrator encounters are not at all anthropomorphic, but they remain peculiarly human. For all their grotesquery, the nautiloids almost certainly derive from Stapledon's childhood memories of sailing ships at the Suez Canal. (See the description of nineteenth-century sailing ships as "almost living human artifacts" in the memoir "Fields Within Fields," elsewhere in this* Reader.*) Rare and strange in its images, the episode is also a mischievous satire on class distinctions.*

IN GENERAL the physical and mental form of conscious beings is an expression of the character of the planet on which they live. On certain very large and aqueous planets, for instance, we found that civilization had been achieved by marine organisms. On these huge globes no land-dwellers as large as a man could possibly thrive, for gravitation would have nailed them to the ground. But in the water there was no such limitation to bulk. One peculiarity of these big worlds was that, owing to the crushing action of gravitation, there were seldom any great elevations and depressions in their surface. Thus they were usually covered by a shallow ocean, broken here and there by archipelagos of small, low islands.

I shall describe one example of this kind of world, the greatest planet of a mighty sun. Situated, if I remember rightly, near the congested heart of the galaxy, this star was born late in galactic history, and it gave birth to planets when already many of the older stars were encrusted with smouldering lava. Owing to the violence of solar radiation its nearer planets had (or will have) stormy climates. On one of them a mollusc-like creature, living in the coastal shallows, acquired a propensity to drift in its boat-like shell on the sea's surface, thus keeping in touch with its drifting vegetable food. As the ages passed, its shell became better adapted to navigation. Mere drifting was supplemented by means of a crude sail, a membrane extending from the creature's back. In time this nautiloid type proliferated into a host of species. Some of these remained minute, but some found size advantageous, and developed into living ships. One of these became the intelligent master of this great world.

The hull was a rigid, stream-lined vessel, shaped much as the nineteenth-century clipper in her prime, and larger than our largest whale. At the rear a tentacle or fin developed into a rudder, which was sometimes used also as a propeller, like a fish's tail. But though all these species could navigate under their own power to some extent,

their normal means of long-distance locomotion was their great spread of sail. The simple membranes of the ancestral type had become a system of parchment-like sails and bony masts and spars, under voluntary muscular control. Similarity to a ship was increased by the downward-looking eyes, one on each side of the prow. The mainmast-head also bore eyes, for searching the horizon. An organ of magnetic sensitivity in the brain afforded a reliable means of orientation. At the fore end of the vessel were two long manipulatory tentacles, which during locomotion were folded snugly to the flanks. In use they formed a very serviceable pair of arms.

It may seem strange that a species of this kind should have developed human intelligence. In more than one world of this type, however, a number of accidents combined to produce this result. The change from a vegetarian to a carnivorous habit caused a great increase of animal cunning in pursuit of the much speedier submarine creatures. The sense of hearing was wonderfully developed, for the movements of fish at great distances could be detected by the under-water ears. A line of taste-organs along either bilge responded to the ever-changing composition of the water, and enabled the hunter to track his prey. Delicacy of hearing and of taste combined with omnivorous habits, and with great diversity of behaviour and strong sociality, to favour the growth of intelligence.

Speech, that essential medium of the developed mentality, had two distinct modes in this world. For short-range communication, rhythmic underwater emissions of gas from a vent in the rear of the organism were heard and analysed by means of under-water ears. Long-distance communication was carried on by means of semaphore signals from a rapidly agitating tentacle at the mast head.

The organizing of communal fishing expeditions, the invention of traps, the making of lines and nets, the practice of agriculture, both in the sea and along the shores, the building of stone harbours and work-shops, the use of volcanic heat for smelting metals, and of wind for driving mills, the projection of canals into the low islands in search of minerals and fertile ground, the gradual exploration and mapping of a huge world, the harnessing of solar radiation for mechanical power, these and many other achievements were at once a product of intelligence and an opportunity for its advancement.

It was a strange experience to enter the mind of an intelligent ship, to see the foam circling under one's own nose as the vessel plunged through the waves, to taste the bitter or delicious currents streaming past one's flanks, to feel the pressure of air on the sails as one beat up against the breeze, to hear beneath the water-line the rush and murmur of distant shoals of fishes, and indeed actually to *hear* the sea-bottom's

configuration by means of the echoes that it cast up to the under-water ears. It was strange and terrifying to be caught in a hurricane, to feel the masts straining and the sails threatening to split, while the hull was battered by the small but furious waves of that massive planet. It was strange, too, to watch other great living ships, as they ploughed their way, heeled over, adjusted the set of their yellow or russet sails to the wind's variations; and very strange it was to realize that these were not man-made objects but themselves conscious and purposeful.

Sometimes we saw two of the living ships fighting, tearing at one another's sails with snake-like tentacles, stabbing at one another's soft "decks" with metal knives, or at a distance firing at one another with cannon. Bewildering and delightful it was to feel in the presence of a slim female clipper the longing for contact, and to carry out with her on the high seas the tacking and yawing, the piratical pursuit and overhauling, the delicate, fleeting caress of tentacles, which formed the love-play of this race. Strange, to come up alongside, close-hauled, grapple her to one's flank, and board her with sexual invasion. It was charming, too, to see a mother ship attended by her children. I should mention, by the way, that at birth the young were launched from the mother's decks like little boats, one from the port side, one from the starboard. Thenceforth they were suckled at her flanks. In play they swam about her like ducklings, or spread their immature sails. In rough weather and for long voyaging they were taken aboard.

At the time of our visit natural sails were beginning to be aided by a power unit and propeller which were fixed to the stern. Great cities of concrete docks had spread along many of the coasts, and were excavated out of the hinterlands. We were delighted by the broad water-ways that served as streets in these cities. They were thronged with sail and mechanized traffic, the children appearing as tugs and smacks among the gigantic elders.

It was in this world that we found in its most striking form a social disease which is perhaps the commonest of all world-diseases—namely, the splitting of the population into two mutually unintelligible castes through the influence of economic forces. So great was the difference between adults of the two castes that they seemed to us at first to be distinct species, and we supposed ourselves to be witnessing the victory of a new and superior biological mutation over its predecessor. But this was far from the truth.

In appearance the masters were very different from the workers, quite as different as queen ants and drones from the workers of their species. They were more elegantly and accurately stream-lined. They had a greater expanse of sail, and were faster in fair weather. In heavy seas they were less seaworthy, owing to their finer lines; but on the

other hand they were the more skilful and venturesome navigators. Their manipulatory tentacles were less muscular, but capable of finer adjustments. Their perception was more delicate. While a small minority of them perhaps excelled the best of the workers in endurance and courage, most were much less hardy, both physically and mentally. They were subject to a number of disintegrative diseases which never affected the workers, chiefly diseases of the nervous system. On the other hand, if any of them contracted one of the infectious ailments which were endemic to the workers, but seldom fatal, he would almost certainly die. They were also very prone to mental disorders, and particularly to neurotic self-importance. The whole organization and control of the world was theirs. The workers, on the other hand, though racked by disease and neurosis bred of their cramping environment, were on the whole psychologically more robust. They had, however, a crippling sense of inferiority. Though in handicrafts and all small-scale operations they were capable of intelligence and skill, they were liable, when faced with tasks of wider scope, to a strange paralysis of mind.

The mentalities of the two castes were indeed strikingly different. The masters were more prone to individual initiative and to the vices of self-seeking. The workers were more addicted to collectivism and the vices of subservience to the herd's hypnotic influence. The masters were on the whole more prudent, far-seeing, independent, self-reliant; the workers were more impetuous, more ready to sacrifice themselves in a social cause, often more clearly aware of the right aims of social activity, and incomparably more generous to individuals in distress.

At the time of our visit certain recent discoveries were throwing the world into confusion. Hitherto it had been supposed that the natures of the two castes were fixed unalterably, by divine law and by biological inheritance. But it was now certain that this was not the case, and that the physical and mental differences between the classes were due entirely to nurture. Since time immemorial, the castes had been recruited in a very curious manner. After weaning, all children born on the port side of the mother, no matter what the parental caste, were brought up to be members of the master caste; all those born on the starboard side were brought up to be workers. Since the master class had, of course, to be much smaller than the working class, this system gave an immense superfluity of potential masters. The difficulty was overcome as follows. The starboard-born children of workers and the port-born children of masters were brought up by their own respective parents; but the port-born, potentially aristocratic children of workers were mostly disposed of by infant sacrifice. A few only were exchanged with the starboard-born children of masters.

With the advance of industrialism, the increasing need for large supplies of cheap labour, the spread of scientific ideas and the weakening of religion, came the shocking discovery that port-born children, of both classes, if brought up as workers, became physically and mentally indistinguishable from workers. Industrial magnates in need of plentiful cheap labour now developed moral indignation against infant sacrifice, urging that the excess of port-born infants should be mercifully brought up as workers. Presently certain misguided scientists made the even more subversive discovery that starboard-born children brought up as masters developed the fine lines, the great sails, the delicate constitution, the aristocratic mentality of the master caste. An attempt was made by the masters to prevent this knowledge from spreading to the workers, but certain sentimentalists of their own caste bruited it abroad, and preached a new-fangled and inflammatory doctrine of social equality.

During our visit the world was in terrible confusion. In backward oceans the old system remained unquestioned, but in all the more advanced regions of the planet a desperate struggle was being waged. In one great archipelago a social revolution had put the workers in power, and a devoted though ruthless dictatorship was attempting so to plan the life of the community that the next generation should be homogeneous and of a new type, combining the most desirable characters of both workers and masters. Elsewhere the masters had persuaded their workers that the new ideas were false and base, and certain to lead to universal poverty and misery. A clever appeal was made to the vague but increasing suspicion that "materialistic science" was misleading and superficial, and that mechanized civilization was crushing out the more spiritual potentialities of the race. Skilled propaganda spread the ideal of a kind of corporate state with "port and starboard flanks" correlated by a popular dictator, who, it was said, would assume power "by divine right and the will of the people."

I must not stay to tell of the desperate struggle which broke out between these two kinds of social organizations. In the world-wide campaigns many a harbour, many an ocean current, flowed red with slaughter. Under the pressure of war to the death, all that was best, all that was most human and gentle on each side was crushed out by military necessity. On the one side, the passion for a unified world, where every individual should live a free and full life in service of the world community, was overcome by the passion to punish spies, traitors, and heretics. On the other, vague and sadly misguided yearnings for a nobler, less materialistic life were cleverly transformed by the reactionary leaders into vindictiveness against the revolutionaries.

Very rapidly the material fabric of civilization fell to pieces. Not

till the race had reduced itself to an almost subhuman savagery, and all the crazy traditions of a diseased civilization had been purged away, along with true culture, could the spirit of these "ship-men" set out again on the great adventure of the spirit. Many thousands of years later it broke through on to that higher plane of being which I have still to suggest, as best I may.

The Reign of Darkness
from *Darkness and the Light*

Published in 1942, Darkness and the Light *projects two alternate futures, glimpsed by a visionary narrator from a vantage point within the turbulent first years of World War II. In one future the forces of light, led by Tibetan mystics and pacifists, lead humanity to global utopia; but in the other future, the grimmest hell Stapledon ever created, the Tibetan light is snuffed out by the allied forces of China and Russia after the collapse of Germany, Britain, and Japan. The dissolution of the Lamaist monasteries, the destruction of Lhasa, and the obliteration of Tibetan culture—eerily like the actual fate of Tibet under Chinese rule in the 1960s—usher in a despotic world order, presided over by China after a treacherous attack on its ally that leaves Moscow in ruins. Once a resistant but weakened America has been crushed, the "Reign of Darkness" is maintained by a synthetic state religion manufactured to enforce submission to government authority and by the staging of public holocausts "in which, before the eyes of a howling and ecstatic mob, thousands were roasted alive or vivisected by machinery devised to produce maximal pain." The following excerpts illustrate Stapledon's revulsion from the systematic cruelties of Naziism as well as longstanding concerns over state control of technology and mass communications. The grisly solutions to problems of unemployment and depopulation echo the ominous futures created by Stapledon's contemporaries Aldous Huxley in* Brave New World *and Katharine Burdekin (using the pen name of Murray Constantine) in* Swastika Night; *the brain implants to monitor unorthodox thinking recall the perverse surgery in the early Soviet dystopia* We, *by Yevgeny Zamyatin.*

WITH THE FALL OF AMERICA the human race had succeeded for the first time in establishing the political unity of the whole planet. The imperial Chinese government now assumed the title "The Celestial Government of the World," and ordered celebrations in every town and every

household of the planet. Everywhere desperate efforts were made to produce tolerable specimens of the ancient Chinese dragon flag, which had been revived by the second empire and was henceforth to be the dreaded emblem of the world-government. Everywhere, even on the blood-stained Russian plains, this emblem, or some crude approximation to it, was now anxiously flaunted. It was affirmed that at last the green Chinese dragon had devoured the red orb that had for so long hung tantalizingly before him in the golden sky. The red orb was no longer interpreted as the sun of Japan but as the red world of Russian imperialism. It was added in a whisper that with luck the dragon might soon die of indigestion.

World-unity had been attained! But what a unity! Nowhere throughout the world was there any considerable group who were at peace with the world, save the governing class and its jackals. Everywhere the peasants were enslaved to the universal imperial landlord. Everywhere they toiled to produce the world's food. Everywhere they starved and were harshly regimented. Miners and factory hands were in the same condition. The world-government, instead of organizing a great and universal movement of social reconstruction, thereby keeping the workers and the soldiers in employment, dismissed half its armies and kept the rest in idleness. The workers it treated with utter contempt, confident in its power to coerce them. The great class of technicians who had been persuaded to support the war in the hope that under world-unity they would be given the chance to build universal prosperity, found themselves used either for strengthening the oligarchy or for producing its luxuries; or else dismissed and maintained by the state in a sort of half-life of penury and despond.

Although individualistic capitalism had long since vanished, the universal decadent state-capitalism was in many ways subject to the same disorders. Though the power for social planning was in the hands of the world-government, the will was lacking. The rulers were concerned only to maintain their position. Vast economic powers, at first the perquisites of the great ruling Chinese families, were now farmed out to irresponsible state-servants, who turned themselves into dictators of the industries under their control. And since there was little co-ordination of their actions, and, anyhow, they were mainly concerned to feather their own nests, chaos followed. Unemployment increased, and brought with it its attendant evils. Desperate populations became difficult to handle. Punitive massacres were very frequent.

At last a new invention, one of the very few which the declining species managed to achieve, brought temporary aid. A biochemist produced a method of putting human beings into a state of suspended

animation from which, he said, they could be easily wakened, "fresh and young," after a sleep of many years. The world-government, believing that unemployment was a passing phase, and that later on there would be a great need of labour, set about building in every country a system of cold-storage warehouses where unwanted human beings could be deposited until the times changed. The unemployed and their families were forcibly stored in these warehouses. The struggling creatures were chained down, lying shoulder to shoulder on tiers of shelves inside huge tanks, which were then filled first with a succession of gases and finally with a preserving liquid. Millions of men, women, and children in almost every country were thus stored for future use. Though the lives of the workers were almost intolerably arid and distressful, they did all in their power to avoid being sent to the cold-storage houses. The will for the light expressed itself in them as a blind will for active life, however abject. But a few welcomed this opportunity of escape, without irrevocable extinction, believing that in their next phase of active life they would have better opportunities of expressing themselves. In most of these, the acquiescence in suspended animation was at bottom an expression of the will for darkness, though rationalized to satisfy the still-smouldering will for light. For the individual in whom the will for the light is strong and clear finds his heart inextricably bound up with the struggle of the forces of light in his native place and time. Much as he may long for the opportunity of fuller self-expression in a happier world, he knows that for him self-expression is impossible save in the world in which his mind is rooted. The individual in whom the will for the light is weak soon persuades himself that his opportunity lies elsewhere. And so, as the spirit of the race was progressively undermined through ever deteriorating physical and psychological conditions, acquiescence in "the deep sleep" became more and more widespread.

One of the main factors in the waning of the will for the light in this period was the attitude of the intellectuals. The academics, musicians, painters, cinema-artists, and, above all, the writers flagrantly betrayed their trust. In all these groups there were persons of four types. Many were paid servants of the government, engaged on propaganda through work which was ostensibly independent. They were concerned chiefly to put a good complexion on the régime, and to praise the fundamental principles of the synthetic faith, in particular the virtues of acquiescence and obedience, and the ecstasy of cruelty. Still more numerous were the independent but futile intellectual ostriches who shut their eyes to the horror of their time and won adulation and power by spinning fantasies of self-aggrandizement and sexual delight, distracting men's attention from contemporary evils

with seductive romances of other ages and other worlds, or with exalted and meaningless jargon about a life after death. There were also large numbers of progressive intellectuals. These saw clearly enough that contemporary society was mortally sick, and in a dream-like, unearnest way they expounded their tenuous Utopias, in which there was often much common sense and even wisdom; but they preached without that fury of conviction which alone can rouse men to desperate action. And they themselves lived comfortably upon the existing system, in their flats and suburban houses. Vaguely they knew that they ought to give up all for the revolution; but being what they were, they could not. The fourth type were the very few sincere and impotent rebels, who flung away their lives in vain and crazy attempts to be great prophets.

Crucial to the fate of the human race at this time was the attitude of the class of technicians, the host of highly trained engineers, electricians, aeronautical experts, agricultural experts, and scientific workers in industry. These, if they could have formed a clear idea of the plight of the race, might have saved it. But they were experts who had been carefully trained in the tradition that the expert should not meddle in politics. In times of great stress, of course, they did meddle; but, because they had consistently held themselves aloof, their pronouncements were childish, and their attempts at political action disastrous. A few had, indeed, taken the trouble to study society, and had come to understand its present ills. These fought constantly to enlighten their fellows and unite them in a great effort to control the course of events. Undoubtedly, if the will for the light had been strong in this great class, which controlled throughout the world all the innumerable levers and switches and press-buttons of the material life of society, it could have overthrown the world-oligarchy in a few days, and set about organizing a sane order. But the appeal to the technicians met with a half-hearted response. Most of them shrugged their shoulders and went on with their work. A few took timid action and were promptly seized and put to torture by the rulers. The movement failed.

It seemed to me very strange that a class which included nearly all the best intelligence of the world and very much of the world's good will should be incapable of ousting a set of tyrants who were both insensitive and stupid. The explanation, seemingly, was twofold. First, the rulers found themselves in possession of a vast and highly mechanized system of oppression. If anyone did anything obnoxious to the régime, immediately and automatically he was put out of action. Some colleague would certainly inform against him, and the police would do the rest. For the whole population, it must be remembered, was now tormented by neurotic jealousy and fear. The infliction of

pain on a fellow mortal could afford a crazy satisfaction. Informers were, of course, well rewarded, but it was the joy of persecution that inspired them. Secondly, the mechanization of propaganda had been developed to an extent hitherto unknown. Psychology, the youngest of the sciences, had by now attained a thorough knowledge of the primitive and the morbid in man without reaching to any real understanding of the distinctively human reaches of human personality. Government psychologists had worked out a subtle technique of suggestion by reiterated symbolic appeals to suppressed motives. This method, applied from infancy onwards, had ensured that all the unwitting cravings of a neurotic population, all their unacknowledged fear, hate, energy, cruelty, lechery, selfishness, and mob-passion, should depend both for stimulation and assuagement on the existing social order, and should issue consciously in a jealous and vengeful loyalty to the oligarchy. Thus did a group of scientists who should have used their skill for the purgation and elucidation of men's minds help to deepen the general darkness and misery. The power of propaganda was greatly increased by the prevailing educational principles. The free intelligence, which criticizes fearlessly and without prejudice, was ridiculed, condemned, and carefully suppressed. Bound intelligence, acting within the universe of discourse of the established culture, was encouraged; but it was made clear to every pupil that intelligence was rather a necessary evil than a thing to prize for its own sake. What was intrinsically good was orthodoxy, unison with the tradition. To strengthen the passion for orthodoxy it was ordained that school classes should be as large as possible, and that the main method of teaching should be by organizing mass chanting of the traditional truths. Had the will for the light been less feeble, this procedure might well have induced in some pupils a revulsion in favour of free intelligence; but in this latter day of the human race, such rebellion was very rare.

The government's control over its subjects was greatly increased by a new invention which would have been a cause of increased social well-being had it occurred in a more wholesome society. This was the product of advances in physiology and electrical engineering. The mechanism of the human brain was by now fairly well known; and by means of a vast mesh of minute photo-electric cells, inserted by a brilliant surgical technique between the cerebral cortex and the skull, it was possible to record very accurately the ever-changing pattern of activity in the cortical nerve-fibres. Advances in the technique of radio made it easy to transmit this record over great distances, and to decode it automatically in such a way that the thoughts and impulses of the observed person could be accurately 'read' by observers in far-away

government offices. The immense knowledge and skill which went to these inventions might have caused untold benefits to mankind; but through the treason of the technologists and the power-lust of the rulers they were combined to form a diabolical instrument of tyranny.

A law was passed by which everyone suspected of harbouring dangerous thoughts was condemned to have his brain made available for constant observation. This involved an operation for the insertion of the photo-electric mesh under his skull and the attachment of the necessary miniature accumulators to his crown by screws driven into the skull itself. If any attempt was made to tamper with the instrument, or if the accumulator was allowed to run down beyond a certain point, the unfortunate individual was automatically subjected to the most excruciating pain, which, if prolonged for more than an hour or so, culminated in permanent insanity. In addition to this transmission-instrument there was a minute radio telephone receiver driven into the mastoid bone. Thus not only were the subject's thoughts and feelings open to inspection at every moment of his life by some remote official but also instructions, threats, or repetitive gramophone propaganda could be inflicted on him morning, noon, and night.

At first this technique was applied only to those under suspicion, but little by little it was extended to all classes of society, save the oligarchs themselves and their most favoured servants. Immense offices were set up in all the main centres, where hosts of inspectors were constantly at work taking sample readings of the world's two thousand million minds. Every ordinary man, woman, and adolescent knew that at any moment he might be under inspection. At any moment a voice might interrupt his thoughts with some propaganda commentary on them, or with a rough warning or the imposition of a penalty. While he was going to sleep he might be invaded by music and incantations calculated to mould his mind into the temper approved by the government. Those who were brought up from childhood to be accustomed to this treatment accepted it cheerfully. The very young were sometimes even impatient to receive what they foolishly regarded as this certificate of maturity. Under the constant influence of official scrutiny the minds of adolescents became almost perfectly correct. Dangerous thoughts, even of the mildest type, were for them unthinkable. Those who received the treatment as grown men or women suffered prolonged mental agony, and many committed suicide.

The policy of those who controlled this vast system of espionage was simply to ensure that all minds should be orthodox. As time went on, the inquisitors themselves came to be chosen solely from the ranks of those who were products of the system itself. So amazingly correct

were these minds that they suffered nothing from the publicity of all their mental processes.

The strangest aspect of the system was this. Those who controlled it were themselves enslaved to it; they used their power not to emancipate themselves but to support the ruling caste. In the earlier phase of the Chinese world-empire the caste, or rather the non-hereditary class from which the caste later developed, had maintained its position by superior cunning and resolution; but in its later phase, when cunning and resolution had given place to stupidity and self-indulgence, the position of the ruling caste was maintained automatically by the mechanical functioning of the established social system. The rulers had immense privileges and great arbitrary powers. For them the workers piled up luxuries. In accordance with the vagaries of their fickle taste, fashions changed, whole working populations were suddenly worked to death or flung aside into the cold-storage warehouses. When the rulers said "do this" or "do that," the world obeyed. But their power lay wholly in the fact that the technicians were hypnotized in their service, hypnotized, not through the cunning and resolution of the rulers themselves, but through the vast momentum of traditional culture. Thus little by little the ruling caste became at once helpless and absolutely secure. In the same manner the slave-owning ants depend wholly on the ministrations of devoted slaves who have all the skill but not the wit to rebel.

The perfection of the system of social control was reached by means of a further triumph of inventive genius. After much laborious experiment a method was devised by which the impulses and desires of the individual could be either stimulated or suppressed by radio. Thus it was possible for the officials in a distant government office to force upon a man an irresistible craving to carry out a prescribed course of action. Like one under hypnotic influence, but with full consciousness of the enormity of his action, he might find himself compelled to betray his friend, to murder his wife, to torture his child or himself, to work himself to death, to fight against impossible odds.

Little by little the whole subject population of the world was fitted with the instruments of volitional control. The government was now practically omnipotent. Once more, the strangest aspect of the new invention was that those who controlled it were themselves under its control. For the operators themselves were fitted with the instruments. Operators in each department were controlled by their superiors, and these by their superiors. These again were controlled by the supreme council of the locality, which was composed of all heads of departments. The supreme council of the locality was in turn controlled by the council of the province or state; and the state councils by the World

Imperial Council. Members of this body were automatically controlled. Automatic machinery ensured that any incipient desire inconsistent with the orthodox system of desires should automatically be obliterated, while certain desires fundamental to orthodoxy were automatically maintained.

This ingenious system, it must be noted, had not been devised by the rulers themselves but by the technologists, by physiologists, psychologists, and electrical engineers. They had done it partly out of blind professional enthusiasm, partly because they felt the need of such a system to fortify their orthodoxy against the unorthodox impulses which occasionally distressed them.

As for the rulers themselves, these sacred beings, these sacred animals, were not controlled. They were free to think and act according to their nature, which by now had degenerated into a mess of stupidity, selfishness, and malice. Their stupidity was the stupidity of beasts. Though they were free, they were powerless. Of degenerate stock, they were conditioned by upbringing to a life of fantastic luxury and desolating self-indulgence. So long as they behaved according to the orthodox pattern, they were preserved and reverenced. If any showed some sign of individuality he was at once de-classed and operated upon for radio control. But this was very rare. Nearly all were content to live at ease on the fat of the land and the adulation of the masses. They were kept busy with the innumerable ceremonies and pageants without which, it was thought, the state would collapse, and in which the representative members of the ruling caste always played the central part. Those who obscurely felt the barrenness of their lives sought notoriety in the fields of sport or aeronautics. But, as the generations passed and their capacity deteriorated, they were forced to seek less exacting forms of self-display. Of these, one of the chief was the infliction of torture. The subject population, though conditioned to believe in the mystical virtue of cruelty, and though capable up to a point of relishing the spectacle of torture inflicted on strangers, were prone to lapse into squeamishness or even compassion. Not so the rulers. Unconsciously poisoned by their own futility and baseness, they were obsessed by hatred of the masses, the technicians, their own peers, and themselves. Without any radio control, therefore, they could inflict the most disgusting tortures with equanimity, and even unfeigned relish. When one of them had to perform the office of tearing out the eyes or bowels or genitals of the sacrificial victim, he did so without a qualm. To the fascinated and nauseated spectators this callousness appeared as aristocratic virtue. When humble people came to be subject to radio control of volition they often welcomed the artificial reinforcement to their ruthlessness. On the other hand when an erring member of the

ruling caste had to be de-classed and put to torture, he invariably showed less than the average fortitude. It never occurred to the public, while they howled with glee at his discomfiture, that the aristocrats, even before de-classing, were after all no better than themselves; for the ceremony of de-classing was supposed to have deprived the culprit of his native virtue. . . .

I cannot be sure how long the Celestial World Empire endured. Its life must certainly be counted in centuries, and possibly it lasted for a couple of thousand years. Though the world empire was at heart a diseased society and bound to disintegrate, it inherited from earlier societies a certain toughness of fibre, and its structure was such that it could carry on in a sort of living death so long as conditions remained unchanged. While its material resources were unimpaired it functioned automatically and without change.

The human race had in fact attained the kind of stability which insect species have maintained for many million years. Its whole economy had been worked out in intricate detail by the technicians of an earlier age through a period of many decades, and had at last become absolutely stereotyped. Raw materials, produced in appropriate regions and in regular annual quantities, were assigned to manufacturing districts according to a time-honoured plan, to be distributed in time-honoured proportions to the various nations and social classes. The whole industrial technique had acquired a kind of religious sanctity. No variations were to be tolerated, except the seasonal variations which were themselves sanctified.

In these circumstances the function of the technicians, the unacknowledged but effective rulers of the planet, was radically altered. From being primarily inventors of new processes and new adjustments they became simply orthodox vehicles of the sacred lore. Intelligence, therefore, even bound intelligence, came to have an increasingly restricted function. Before the onset of decline, planning had been becoming more and more comprehensive and far-seeing. Men had planned for centuries ahead and for great societies, even tentatively for the future of the species. But after the world empire had become firmly established and stereotyped, large planning was no longer necessary. Only in the ordering of individual lives was there any scope for intelligence. Even here, as individual lives became more and more dominated by the regularities imposed by the state, the office of intelligence became more restricted. Whenever any daring spirit did try to improve upon the orthodox procedure, his intelligence proved feeble and his action misguided. His failure merely strengthened the general distrust of innovation.

For a very long while the material resources and the biological

condition of the race did remain in effect constant. To the subjects of the world empire it seemed certain that the existing order was eternal. The idea of progress, material or mental, had long since ceased to seem plausible, for society was universally regarded as perfect. On the other hand the idea of racial decline was never contemplated. But behind the appearance of stability great changes were already at work, both in the physical environment and in the constitution of the human race itself.

Though volcanic power was inexhaustible, certain essential raw materials were not. Coal and oil had long ago been superseded as sources of power, but as raw materials for many synthetic products they were valuable, and becoming ever more difficult to procure. The world's phosphate deposits, so necessary for agriculture, were being steadily reduced. Guano, long ago abandoned, was once more assiduously collected. Potash deposits had been heavily worked and were seriously depleted. An earlier age had known that an unlimited supply of potash could, when necessary, be obtained from sea water, but there had been no need to work out a technique for isolating it. Now, when potash was scarce, there was no longer the inventive capacity to tackle so difficult a task. Nitrogen had for long been derived from the air for use in fertilizer and high explosives. In this case, however, the technique was well established, and so there was no immediate danger of its loss. Iron, though one of the commonest of all elements, was becoming steadily more difficult to reach. All ordinarily accessible deposits were seriously depleted, and the skill for much deeper mining was by now lacking.

The condition of forestry in the latter days of the world-empire throws a strange light on the mental decay of the race. Wood-pulp had been the main raw material for many synthetic products. In early days, when the intelligence of the technicians was still effective, afforestation schemes had been organized so as to keep the balance of production and consumption. But latterly planting had seriously lagged behind felling. This may seem surprising, since the balance of planting and felling was part of the rigid and sacred technique of social organization. The cause of the ever-increasing discrepancy was very simple but completely hidden from the sluggish minds of the latter-day empire controllers. The original scheme had been calculated on the assumption that the art of forestry would continue to be practised with quick intelligence. Some margin had been allowed for accidents and errors, but not a fool-proof margin. When intelligence had declined, mistakes became more frequent, and less successfully repaired. Consequently the old sacred formulae failed. The forests slowly but surely dwindled. But according to the sacred scriptures of afforestation this was impossi-

ble, if the formulae had indeed been followed. Therefore it was impious to suggest that the forests were dwindling. Therefore anyone who began to suspect that this was happening turned a blind eye on the facts. Thus the rot continued without any attempt being made to stop it.

The same disastrous decay took place in agriculture. The original organizers of the empire's tillage had worked out a delicately balanced agricultural system which should yield an adequate crop of food-stuffs without impoverishing the land. But this system had depended on intelligent adjustment. It was not fool-proof. When sluggish minds took charge, there was a far greater wastage at every point in the system. The old formulae therefore became inadequate. But since any alteration would have been impious, the upshot was that century by century rather less was put into the ground than was taken from it. Thus there set in a steady process of denudation. Slowly but surely all the great agricultural districts became less productive. The corn-bearing plains of North America and Russia, the rice plains of China and India, the great scattered areas that had provided the world's greens, the fruit lands of California, Australia, South Africa, one and all deteriorated. Little by little they turned into wastes of sand, like the once fertile Sahara. The process was made all the worse by climatic changes caused by the shrinking of the forests.

The gradual failure of agriculture was of course a very slow process. Ordinary citizens of the empire did not notice it. True, there were great desert tracts in which the ruins of former farmsteads might be observed; but the slow-witted populace never dreamed that this was a symptom of an ever-spreading disaster. Only by comparing the present output with past records could the trouble be realized. But the records and the sacred proportions of agricultural production were known only to the "mystery" of agriculture, in fact to the heads of the world agricultural system. These magnates knew vaguely that something was wrong; but since for sundry reasons it was unlikely that there would be trouble in their day, they held their tongues. The decline was in fact easily concealed, because, while supplies were dwindling, the population of the world was also rapidly decreasing.

The decline of world-population had started long ago after the period of rapid increase which took place in the early phase of industrialization. It was due partly to the widespread use of efficient contraceptive methods, partly to anxiety about economic insecurity, partly to a vague sense of the futility and falsity of civilization. In the rather tired Utopia of North America, where the decline was first seriously felt, insecurity cannot have been a cause, for prosperity was universal. But disillusionment about a curiously aimless Utopia was a serious

factor in American life. The early totalitarian states had always feared decline of population, and had done their utmost to check it, but without much success. The newer totalitarian states, the Russian and Chinese Empires, and the World Empire in its early phase, had attacked the problem with characteristic ruthlessness.

The most obvious way to increase population was to waken the hundreds of millions whom past governments had from time to time put into cold storage all over the world in order to solve the unemployment problem. There was at first great reluctance to do this, for a reason which reveals the incredible stupidity and superstition of the human race in this period. Declining population, far from solving the unemployment problem, had increased it. Demand was constantly declining. Mass-productive machinery could less easily be worked at a profit. Though the rulers saw clearly enough with one side of their minds that an increase in population was needed, on the other side they were painfully aware of the unemployment problem, and reluctant to add to the stagnant pool of potential labour. Consequently, though there was much discussion about the cold-storage houses, nothing was done. Meanwhile population continued to decline.

The governments tried to compel the people to reproduce. Women were educated to believe that their sole function was reproduction. Mothers were honoured in relation to the number of their offspring. Those who produced fifteen or more babies were given the title "Prolific Mother." Any who succeeded in launching twenty human beings were deified. Contraception was made illegal and condemned as immoral. In spite of all these measures the fertility-rate declined. In desperation the World Government tightened its grip on the women. Every girl was compelled to have intercourse with a man as soon as she was certified as mature. A month after certification she appeared before her medical board again and was examined to prove that she was no longer a virgin. If after three months she had not conceived, she was sent to an institution that combined the characters of a brothel and a stud-farm. If after another three months she still failed to conceive, she was subjected to medical and surgical treatment to cure her barrenness. If this also failed, she was publicly disgraced, appropriately tortured, and gradually killed.

After helplessly watching the decline of population for many decades, perhaps centuries, the World Government decided to take the obvious step, which, moreover, was sanctioned by scripture. For it was part of the sacred canon that some day, when there was great need of workers, the sleepers must be wakened. The rulers now declared that the time had come. In panic and without proper preparation it ordered the physiologists to thaw out the whole refrigerated multitude. The

process was a delicate one, and the instructions left by an earlier and brighter generation were at first badly bungled. Millions were killed, or woke up to a brief period of misery and bewilderment, speedily followed by death. Millions more survived only for a life of permanent invalidism or insanity. The majority, however, though seriously damaged by their rough awakening, were fit for active life of a sort. But they had slept through much history. Their minds had been formed by a world long vanished. Their speech and thought were often so archaic that modern individuals could not understand them. Their limbs, and their minds too, moved at first with painful sluggishness. Their procreative impulses were apparently quenched. Moreover they gradually discovered that their new world was even less propitious than the old one. Some of them, when they had entirely thrown off the miasma of their age-long sleep and had painfully adjusted themselves to the new environment, proved to be rather more quick-witted than their normal neighbours in the new world. And, as they had not been brought up to accept the recent and more extravagant prejudices of the new world, they were generally very critical of the modern customs and institutions. In fact they soon became a grave nuisance to the authorities. The Government hastened to order that all the "reawakened" should at once be fitted with radio control. This obvious precaution had been delayed less through fear of putting them to too great a strain before they had recovered from the effects of refrigeration, than out of an amazingly stupid reluctance to raise them to the rank of citizens. Millions were now subjected to the operation. Half of these died under the anaesthetic. Millions more put up a desperate resistance and had to be destroyed. Here and there, where there was a large concentration of the "reawakened," they were able to seize power and set up a rebel state. The spectacle of human beings resisting authority was utterly bewildering to the robot citizens of the world-state. In many minds there arose an agonizing conflict between the orthodox radio-generated will and a shocking impulse to rebel. This would probably not have occurred had not the technique of radio-control seriously degenerated, owing to the general decline of intelligence. Many of the unfortunate sub-humans (for men were no longer human) went mad or died under the stress of this conflict. Some succeeded in resisting the control and joined the rebels. It almost appeared that an era of new hope was to begin for the human race. Unfortunately the "reawakened" could not stand the strain. While their cause prospered, all was well with them, but every passing misfortune was accompanied by a great crop of suicides. So little heart had they for life. One by one the rebel centres collapsed, till none was left.

The population problem remained unsolved. One other method of coping with it had been tried, at first with some success.

In the early middle period of the world empire, while innovation was still possible, a group of physiologists and surgeons had devised a method which, it was hoped, would settle the matter for ever. The new technique was a half-way stage towards true ectogenesis. The womb and other necessary organs were removed from a young woman and kept alive artificially. The mutilated donor of these precious organs was then destroyed, but part of her blood-stream was put into artificial circulation through the excised organs and used as the medium for supplying them with necessary chemicals. The womb could then be inseminated, and would produce an infant. By various technical methods the process could be made far more rapid than normal reproduction. Moreover quintuplets could be procured from every conception. Unfortunately the excised organs could not be kept alive for more than ten years, so it was necessary to have a constant supply of young women. The government therefore imposed the death penalty on women for the most trivial offences, and used them up for artificial reproduction. At the same time it tried to educate female children in such a way that when they reached maturity many would actually desire the supreme glory of sacrificing their lives so that their wombs might live on with enhanced fertility. The response to this propaganda was disappointing. In fear of a really catastrophic decline of population the government passed a law that every woman, except members of the sacred governing class, must "give her life for her children's sake" at the age of twenty-five.

Unfortunately the method of artificial reproduction involved a very delicate surgical technique, and it did not come into general use until first-class manipulative intelligence was already in decline. Increasingly, therefore, the excised wombs failed to survive the operation, or, if they did survive, failed to produce viable infants. Presently it became clear to the few free intelligences of the race that the method, far from increasing the population, was actually hastening its decline. But already the method had become part of the sacred tradition and could not be abandoned. For decades, therefore, it continued to be practised with increasingly disastrous results. There came a time, however, when even the dull and enslaved wits of the Celestial Empire could not but realize that if the decline of population was not quickly stopped civilization would disintegrate. A great struggle ensued between the orthodox and the protestants, until at last a compromise was agreed upon. At the age of twenty-five every young woman must receive a ceremonial cut on the abdomen, accompanied by suitable ritual and incantations. This, it was believed, would increase the fertility of her reproductive organs without the necessity of excising them.

In spite of everything, population continued to decline. I was not able to discover the cause of this universal process. Perhaps the root of

the trouble was physiological. Some chemical deficiency may have affected the germ cells. Or again some subtle mutation of the human stock may have rendered conception less ready. Or perhaps the neurotic condition of the population had produced hormones unfavourable to conception. I am inclined to believe that the real cause, through whatever physical mechanism it took effect, was the profound disheartenment and spiritual desolation which oppressed the whole race.

Whatever the cause, the world-population continued to shrink, and in the process it became a predominantly middle-aged population. The small company of the young, though cherished and venerated, counted for nothing in decisions of policy. An ice-age of feebleness and conservatism gripped the world with increasing force.

Old Man in New World

In 1943 Arthur Koestler asked Stapledon to contribute to an anthology of utopian fiction he was planning. Koestler admired "Old Man in New World," but the other submissions were so disappointing that he concluded that the world war had sterilized the utopian imagination. He gave up the project. Stapledon's story, set in a world state at the end of the twentieth century, is his most disarming foray into utopianism. His allegiance to utopian ideals was clear in several of his books of the 1930s, including Waking World *(1934) and* New Hope for Britain *(1939), and a strong, though dark, streak of utopianism runs through nearly all his fiction, especially* Last and First Men, Odd John, Star Maker, *and* Darkness and the Light. *But "Old Man" has a gentle, wryly humorous take on utopia not found anywhere else in Stapledon's fiction, and it raises fascinating questions about the differences between those who fight to make a utopian society and those who actually live in utopia. These two sides, dramatized here in a dialogue between an old communist and a young flyer, Stapledon often named in his other writings as the perspectives of the revolutionary and the saint. The author's own viewpoint on the utopia is not simply located. He puts some of himself into both saintly and revolutionary voices, but the cosmic skepticism of the Fool's climactic oration is a distinctive ingredient of the vision Stapledon reiterated throughout his career. The story was eventually published as a chapbook by P.E.N., the international writers' association, in 1944.*

THE OLD MAN could not help feeling flattered by the Government's thoughtfulness in sending a special aeroplane to fetch him from his

home in Northumberland to witness the great celebration in London. Born during the First World War, he was now nearly eighty, though still, he believed, remarkably clear-headed. Today he was to take his place among the honoured but ever dwindling band of the Fathers of the Revolution. The occasion was the Procession of the Peoples, which was organized every year in some selected city of the world to commemorate the founding of the New World Order, thirty years ago, and twenty-three years after the end of the Second World War. This time the pageant and its concluding ceremony were to be given a new character by a special reference to the young; for today mankind was celebrating also the "Twenty-Fifth Anniversary of the First Generation of the New World," the young people who were born when the New Educational Policy had first come into full operation, five years after the world-wide revolution was completed. By good luck it had fallen to London to be the hostess city on this very special occasion. It was surely fitting that the British metropolis should have the privilege of providing the setting of this event, for it was the shrunken population of Britain that had achieved the most striking change in its fortunes by centring its whole economy on the care and education of its young.

When the agile little two-seater plane had lightly settled on his lawn, the old man stuffed a book in his pocket, hurried out, and climbed into his place, greeting the young pilot. The plane rose vertically above the trees, then slid forward, folding its helicopter vanes into its body. The familiar landscape flattened into a shifting green and brown patchwork.

The old man was pleased to find that the purring sound of the modern silenced plane offered little hindrance to conversation. Small talk soon established friendly relations with his companion, but there inevitably remained a gulf between the aged revolutionary and this young product of the Revolution. The difficulty was not simply due to the years. Between the seniors and the new young there was a subtle difference of mental texture, a difference so deep and far-reaching that one could almost believe that these young minds were based on a different bio-chemical structure from one's own. Of course, they were always respectful, and even friendly, in a superficial way; but always they seemed to withhold something. It was as though, the old man fantastically imagined, they were humouring a child that had suffered and been warped, and would never really grow up. On the rare occasions when they did let themselves go, they talked the strangest stuff. It made one question whether the New Educational Policy had really been sound. But then, was this modern England itself really sound? Was the New World sound? In some ways, of course, it was magnificent; but too many queer new values were in the air. He suspected

them. Well, perhaps the show that he was to witness might throw some light on the matter. Rumour had it that there were to be innovations of a startling kind, and that these were designed to indicate that the new and rather young President of the World Federation and many of his colleagues approved of the widespread change of temper in the life of mankind, and intended to foster it.

Secretly the old man regarded this expedition to London as something more than a pleasant jaunt at the Government's expense. It was a mission of inspection. He was an emissary from the past, charged with assessing the achievement of the present. Were the generations that were now in the prime of life making the best possible use of the great opportunity which earlier generations had won for them, after decades of climax and heroic struggle?

He decided to begin his investigation on the young airman. "It must be grand to be young in these prosperous times," he said, "with all the troubles well over." The young man looked quickly at him, and laughed. Somewhat disconcerted, the senior wondered whether the new young, brought up so tenderly and scientifically, could possibly realize what the barbaric pre-revolutionary age had been like. This boy had missed that stern schooling.

"Well," the elder said, "there's no fear of war now, or of tyranny, or of starvation, or of being allowed to rot with nothing to do, or of being worked to death. The world standard of living is high, and rising rapidly; and the backward peoples have almost been brought up to the general level. Everyone is living a fairly full and satisfying life, I suppose. When you young people take charge, there'll be no serious problems left, nothing to do but to carry on improving things all round. What more do you want?"

There was a long pause before the young man spoke. "New times, new ideas," he said, "and new problems."

Again a pause, broken by the senior. "No doubt when sub-atomic power comes into full commercial use we shall find ourselves in the thick of another industrial revolution. But . . ."

"I wasn't thinking of that," the pilot said, "though certainly in a few years sub-atomic power will produce terrific strains if it isn't properly managed. There'll be new skills, new social groupings, an entirely new texture of economic life. We shall warm the Arctic, cool the tropics, reshape the continents, water the deserts, and everyone will have his private rocket-plane for long-distance travel. Quite soon we shall explore the planets. But even that huge economic change will work smoothly enough if . . ."

"If social discipline is properly maintained," the other said.

"Oh, it will be. That's not the problem. Today the danger is rather

that the highly successful world-wide ideology will clamp down on our minds so tightly that we shall lose all power of *radical* originality, of originality outside the general pattern of culture. If so, we shall never be able to cope with circumstances that call for *radical* innovation. Sub-atomic energy may be among those circumstances. New advances in educational psychology certainly are. In your days it was discipline and unity that were wanted, but today diversity, originality, and full expression. Then, the vital thing was to teach people to feel community, and to live it, and to give up everything to fight for it. But that battle has been well won. Now, it's individuality that has to be fostered, helped to develop, to deepen itself, to break out into as many new forms as possible. The people in charge don't seem to be able to see how important this is. They have been thinking still in terms of the old half-savage pre-revolutionary human being."

"That's me, I take it," put in the old man.

The young man laughed. "There were many, no doubt, who were ahead of their time. But the mass *were* half-savage, warped in mind from birth onwards by ignorant warped parents and teachers, by a hostile economic environment, and by a culture that put a premium on self-seeking."

"You don't mince matters," laughed the old man, "but what you say is true."

"The point is this," the pilot continued, "human beings can be far more different from one another than sub-human animals can be, and yet they can also be far more aware of one another, and enriching to one another. Well, practically all post-revolutionary human beings can go beyond the average of pre-revolutionary human beings in that way, because they are more conscious. Events before the revolutionary period were already forcing many people to be more penetratingly aware of themselves and their world, and the New Educational Policy has carried the young ones much further. But there's a horrible discrepancy between our educational system and our Government's old-fashioned attempt to keep a firm hand on us. It's so silly, childish. No one *wants* to be anti-social now, so why discipline them? The economic system in the old days *forced* people to be self-seeking and anti-social, but the present one doesn't. The only serious self-seeking there *can* be now is selfish rivalry in social service."

"True in the main," said the old man, "but we must remember the foundations of human nature. We are still at bottom self-regarding animals, and society must compensate for our inveterate individualism by a good deal of discipline. After all, community *involves* some cramping of the longing for unrestrained self-expression. Never forget that."

"We won't, we won't," the young man said, "but community, true community of self-aware and other-aware persons, also involves real differences, otherwise—the ant-hill. And for real persons, discipline must be self-discipline, otherwise it defeats itself. Besides—well, the New Educational Policy was meant to produce a new *kind* of human being, unwarped, fully personal, and all that. It has already gone far; but when the new techniques of psycho-synthesis and telepathic influence have been perfected it will go much further. Maybe it has succeeded better than you intended, even now. Maybe its success makes new social principles necessary, perhaps a new revolution. In your day, I suppose, the vital problems were economic, but now they're psychological."

There was silence, save for the subdued murmur of the plane and the sound of the streaming air. Far below, and to the left, a silver scribble was the Tyne. Through the clear atmosphere of the new smokeless England one could see the towns and docks as sharply defined as a model at arm's length.

The old man had always prided himself on keeping a supple mind open to new ideas, and his junior had given him something which deserved serious consideration. For a long while he silently ruminated, while the plane slid quietly forward over the counties. At last he reached a conviction that these new-fangled ideas really were dangerous. The boy must be made to see that they were dangerous.

"You young people are so fortunate in your world," he said, "that you probably can't realize how thin the veneer of civilization is, and how easily it may break down again unless it is very jealously preserved."

"*We* think," said the young man, "that *your* generation were so *un*fortunate in your youth that you cannot really know how far-reaching the change has been."

The old man sighed, and said, "Let me try to make the past live for you." "Do!" said the junior. "Those towers are Ripon. There's plenty of time."

The old revolutionary embarked on a lecture.

"The main outcome of the First World War was the new Russia, the first state ever planned and controlled for the welfare of ordinary people. Discipline and bold planning alone could make that great revolution, and preserve it against the money-men all over the world. When I was very young, between the First and Second Wars, the Russians were patiently and firmly building up their new Society, and nearly everywhere else men were blindly clinging to their various petty freedoms—freedom to buy and sell, freedom to climb on the shoulders of their fellows by money-power, freedom to propagand lies

and folly and hate, freedom of national sovereign states against all attempts at world-wide discipline, freedom of every individual just to destroy himself with aimless frittering, if he had the money and the inclination. All this you know from your history books. But what you can't possibly realize is what it felt like to be young in that time. You can't *feel* the impact of a deadly-sick world on young eager minds. You can't feel what we unemployed felt. You can't feel the foul, stinking, poisonous mist soaking into all our hearts and ruining our humanity."

"All honour," said the young man, "to the Russians for magnificently breaking the spell, and to you and your revolutionary comrades too, for fighting against the poison. But—well, circumstances have been kinder to us. We are not poisoned. And so—"

But the old man refused to be silenced. He had forgotten that he intended to study his companion, not to preach to him. "Knowledge about Russia," he said, "was gradually spreading. Along with the deepening misery went a deepening conviction that the mess was not really inevitable. Russia at least knew how to cure it. And when at last the Second World War came, people said that after *this* war there really would be a new age. The will for a more human order, the will for the light, was stronger than ever before."

The old man seemed to fall into a reverie, till the pilot said, "The will for the light! Yes, it was growing stronger and clearer all the time, really. Well? And then?" It was almost as though he were encouraging a child to repeat its lesson.

"Well," said the elder, "You know as well as I do. We won the war, and lost the peace. But what you young people seem in danger of forgetting is *why* we lost the peace. We lost it because we threw off all the promising disciplines of war. God! How I remember the wild hope when peace came! Never again should gangsters rule! Never again should money-power mess up everything. The Atlantic Charter would at once be applied throughout the world. People really believed that the incubus of the old system could be shifted as easily as that! Unfortunately they forgot that everything depended on the Americans, and that those former pioneers were still stuck in the nineteenth century. The American money-bosses were able to bolster up our own tottering capitalist rulers and prevent our revolution."

"And yet the Americans did well at first," said the young man, "pouring food and goods into Europe without expectation of payment."

"Yes," replied the old man, "but think how the American rulers, the men of big business, when they had recaptured the state after the decline of the New Deal, used the power of the larder and the

store-cupboard to establish swarms of their own people in charge of relief work throughout Europe. These 'relieving' Americans settled down as a kind of aristocracy, benevolent in the main, but blind, fundamentally unenlightened. In the name of freedom and mercy they set up a despotism almost as strict as Hitler's."

The pilot laughed. "And yet you say the cause of all the trouble was lack of social discipline."

"My dear boy," cried the old revolutionary, "I want an *accepted* discipline under the community *as a whole,* in order to prevent *imposed* disciplines by sections of it. A very different matter! Anyhow, think what happened! The American bosses were scared stiff when the beaten Germans turned from Nazism to Communism, and the Italians and most other Europeans followed suit. So they had to use their larder-power to check Communism at all costs. They preached their precious old dead-as-mutton liberal democracy for all they were worth. Individual initiative, private enterprise, freedom of thought, and all the old slogans, went ringing through Europe; and not a soul believed them. But the Americans themselves believed them; and their bosses persuaded them it was their mission to lead mankind into that heaven. They were God's people, and they must fulfil their destiny. The old, old story! Of course, many Americans must have known it was cant, but it worked all right on the American masses, so that they backed their bosses. And so in the end the job of salvaging Europe got turned into a business undertaking after all. Instead of putting European industry really on its feet again the American bosses damped it down so that it couldn't compete with their own industry, and so that they could keep a firm hand on Europe, because of Communism."

"True, true," sighed the young man, "but what are you getting at? We all know what happened. America, which by the way was really no longer ruled by the men of *money,* but by the new ruling class of skilled managers and technicians, came into conflict with Russia, where the same class was ruling, but with a different set of ideas. There was rivalry between the two ruling cliques for the control of Europe, and over Japan and China. The American bosses were aiming at a world-wide commercial empire; and the leaders of Russia were determined that as soon as they had repaired their country's war-damage, they would revert to the original policy of instigating a world-wide Communist revolution. Very soon, of course, they tumbled to it that the American bosses were out to control the planet. And so they began slowly damping down their huge job of reconstruction so as to re-arm. And of course the Americans were doing the same. Well, what about it?"

"Try to think what it all meant in terms of living," the old man

said. "Think of all the social misery we in Britain had to go through; and on top of it was the certainty of war. In Britain, after the Second War, there had been first a brave attempt to work out a new social order, with security, health, education and leisure for every citizen. But of course that was soon smashed by the moneyed class with help from their American big brothers. Our financial magnates propaganded hard for 'freedom,' abolition of war-time restrictions on private enterprise, back to the good old times, and so on. Instead of letting the Government reshape our whole production system and simplify our living conditions so as to combine frugality with health for all, they just closed down factories, and let millions of workers wallow in unemployment. Everywhere there were ruined factories, deserted mines, streets of dilapidated houses, whole cities neglected and in ruins. Several towns were completely deserted. Those that still functioned at all were inhabited by a few ragged and unhealthy, and mostly middle-aged, people who had lost all hope. The few boys and girls, moreover, seemed prematurely old and grim, oppressed by the preponderance of their elders. How I remember the sickening feeling that we were all just rats that couldn't leave the sinking ship. Day in, day out, one was gripped by that sense of being trapped. To preach revolution, whether to old or young, was like exhorting a man sunk to the neck in a bog to climb a mountain and admire the dawn. Social services decayed, disease increased, the birthrate sank alarmingly. People used to kill their children out of pity, and then kill themselves. The British scarcely noticed the disintegration of their empire, for they had more serious troubles nearer home. It was hell on earth, if ever there was one. The general despair seemed to disintegrate our moral fibre. Too often hopes had been revived and shattered. Too often the promised world seemed to be at hand, only to vanish. The will for the light had always been frail, but now at last it seemed to be withering, like a young plant exposed to too fierce a blizzard. The standard of personal relations was falling. People were becoming in their ordinary contacts with each other less responsible, more callous, less kindly, more vindictive. The mere memory of it all puts me in a cold sweat of fright."

"Well, so what?" said the pilot, with a secret smile.

"What? Well, you know as well as I do. Added to everything else there was the terror of the coming World-War. And stratosphere rocket-planes and sub-atomic bombs promised something far worse than the last war."

"But," the young man interrupted, "the Third World War never happened. Why? You're forgetting something very important. You're forgetting that when both sides were mobilizing, and the war was due at any minute, something happened that would have been impossible

at any other stage of history. You remember how government propaganda for the war never really caught on, on either side; and how at the critical moment an extraordinary popular clamour against war and against social robotism broke out on both sides. Who was really responsible for that? Why, the new 'agnostic mystics,' of course. They started the world strike in America and Russia. Decades earlier, the pacifists had tried to stop war by popular protest, but they failed miserably, because conditions were not ripe. But the new group, who weren't strictly pacifists at all but social revolutionaries with a religious motive—they found conditions ripe, and they did the trick. Obviously you must know that story, how everyone downed tools and was ready to die for the new hope. Thousands must have been imprisoned, hundreds shot. But presently the governments found their armed forces were mutinying. Then came the American Revolution and the big change in Russia. The driving force, as you must surely know, was an odd assortment of airmen, skilled workers, *and*—the agnostic mystics. You ignore those modern saints, but it was those that inspired the whole movement and kept it going. Remember, of course, that for many decades a big change had been slowly going on deep down in people's minds. It had begun away back in the First War and made steady progress through the inter-war period, but it was never effective till after the Second War. It came to a head among the young fighters in that war, particularly among the airmen, and also among all the oppressed peoples of Europe, and in the occupied parts of Russia and China, and later in broken-down Britain. These two very different groups, the fighters and the broken, rediscovered the power of comradeship, as the Russians had done in their first Revolution. But this time it was discovered with far deeper consciousness of its meaning. So much had happened since that earlier awakening. This time it developed into a purged and clarified *will for the light,* as you yourself called it; a will for a more fully human way of living, for intelligence, and other-respecting community, and for creative action in all human affairs."

"Not much new in that," interposed the old man.

"Oh yes, there was," said the junior, "it was a moral passion for this way of living as an *absolute good,* not just as a means to social prosperity. It was mystical, too, because though these people didn't pledge themselves to any beliefs about the ultimate reality, and were mostly outside all organized religion, they *felt* with complete certainty that in some way, which they couldn't state intellectually at all, the struggle for the light was the real meaning and purpose of all conscious existence. And in keeping themselves in severe training for that struggle they found—well, 'the peace that passeth all understanding.'

It was this new attitude, this humbly agnostic, yet deeply mystical, *feeling*, that broke the spell of disillusion and spread like a fire from heart to heart."

The old man had been shifting restlessly in his seat, and now he expostulated. "Wait a minute, wait a minute! What are you getting at? This mystical feeling, as you call it, was just the subjective side of the objective pressure of circumstances, which forced people to see that they must stand together or perish. Of course, I know your mystics mostly came in on the right side, and that they provided a lot of heartening though questionable ideology, and appreciably strengthened the passion and drive of the Revolution. But—"

"They played the leading part in the preliminary American Revolution," said the pilot, "and that prevented the war." "Oh, yes," the old man admitted. "But—" "And they inspired a change in Russia that almost amounted to a second Russian revolution. They made Russia the stronghold of the new agnostic-mystical Communism, as it had been also of the earlier kind of Communism."

"But wait!" cried the old man. "Though the Russians did indulge in a dash of mysticism, there wasn't much of mysticism about the new world-organization. After the decade of revolutions, what came out was nothing highfalutin, just a common-sense world-wide federation of socialist states."

"Yes," the young man said, "because, although it was the agnostic-mystics who generated the *passion* and *drive* of the world-wide revolution, the people who actually *managed the setting up* of the new order were the professional revolutionaries. Their job was to bring off the great economic and social change, and to make it secure. And so they concentrated, quite rightly, on self-discipline for the masses of their supporters and imposed-discipline for their opponents. But when the new order was firmly established, something different was needed, and you old warriors of the revolution" (the young man smiled apologetically at his companion) "could never really see that. It was only with your tongues in your cheeks that you had *used* the power of the new religious feeling to establish the Revolution. For you it was just a heartening rum-ration to fire the simple masses with Dutch courage. You couldn't appreciate that it was a real awakening, and that it must cause a deep and lasting change of temper in the life of mankind, and therefore that it would insist on transforming the whole tone of your new world-order."

"Oh, but we did appreciate that," said the old man, "and we saw both the good in it and the danger. It looked like a first mild dose of those two ancient social poisons, individualism and superstition. Take that word 'instrument' that your friends are so fond of. They are not

content to say that the individual is an 'instrument' of social advancement; they say that individuals, and the race as a whole, are 'instruments' for the fulfilling of 'the spirit.' That's sheer superstition."

"When we say mankind is an instrument," the pilot replied, "we say something that your generation almost inevitably dismisses as cant. And we certainly can't prove it intellectually. But intellect can't *dis*prove it either. Really, it *needs* no proof. It's as obvious as daylight, when one opens one's eyes. And the early agnostic-mystics, by capturing your New Educational Policy, managed to open the eyes of the young to it. *We,*" the young man announced with a smile that prevented the remark from being either pompous or offensive, "are at once the first undamaged generation and the first clear-sighted generation. The credit must go to our elders, not to us; but that's what we are, and we must be treated as such, not with all the trivial discipline that was appropriate to social insecurity, and is now quite out of date."

The couple in the sky fell silent. The old man watched the green land pass under the aeroplane like a great map, unrolled before them and rolled up again behind. From this height England looked much the same as it had in his youth, yet how different were the English, particularly the new young!

Presently, remembering his original intention, he said to his companion, "Tell me about yourself. Help me to understand what sort of supermen you amazing young people really are."

The other laughed. After a pause he said, "Well, I'm twenty-three, professional flier, and university student. Reading biology. Special subject, the flight of birds and insects. I'm making a fine set of telecinematograph pictures of birds in flight, and microcine pictures of insects. But I'm getting more and more interested in psychology, and when I'm too old for first-class flying, maybe I shall be good enough for some psychological job. If not, I'll train fliers. Eighteen months ago I married. My wife, of course, really is a super-girl. She was twenty then, and now she is just about to have a baby. She's studying at the London College of Teachers, and very soon she will be going into their Maternity Home. When she's fit again she'll go back to her studies and her teaching, on the half-time and later the three-quarter-time basis. The College's own crèche and nursery school will help her, of course. We have a flat within five minutes of them."

"Rather an early marriage, wasn't it?" put in the old man.

"Not for these days. I don't mean merely because the country needs children. I mean from the individual point of view. We realize now that it's impossible to live fully without the experience of a lasting partnership. A good marriage is the microcosm of all community experience. Of course, if it fails, we can drop it, acknowledging our mistake;

but it won't fail. We had other affairs first, of course, and may have occasional fresh ones in the future. But we do belong to one another fundamentally, and we decided to register the fact. Besides, we want the children to know that we were sure of one another right at the beginning."

Strange, the old man mused, how monogamy was being rehabilitated! The only snobbery in the typical modern young mind was the snobbery of the happily married who were also parents. But to be so sure of one another at twenty-two and twenty! The venture seemed bound to fail. And yet—perhaps the New Educational Policy, with its minute care for emotional education and its new technique of psychosynthesis, really had produced a more self-aware and other-aware and passionally stable type. The new young did seem to have an inner stability and harmony lacking in the young of his own early days. Monogamy, when it worked, evidently gave both partners something extraordinarily valuable, something steadying and strengthening. He looked back at the sweet but torturing and transitory affairs of his own life. How superficially he and his beloveds had been aware of one another! He remembered, too, his late, desperate, childless marriage and stormy separation.

The plane was now over the outskirts of London, and the old man's attention was drawn to the impressive spectacle of the giant city, spread out below him and stretching away in all directions to fade into the summer haze. Of smoke there was none. Every building below him stood out sharply in the sunshine, like a precise little crystal among thousands of fellow crystals. The whole was like a patchwork of crystallization and green mould, which was really the many parks and gardens, and the long ranks of trees lining the great new boulevards. The Thames was a bright ribbon that borrowed colour from the blue sky. As the plane circled and sank, the old man picked out familiar landmarks, the tower of the new House of Parliament (the former buildings had been destroyed in the troubles), the ancient dome of St. Paul's, the great pile of University College. Now he could see cars moving in the streets. Boats on the Thames were little water-beetles. Towers and spires rose upwards as the plane descended, till weathercocks were at eye-level. The plane protruded its helicopter vanes and hovered here and there, like a bee choosing a flower, as the pilot sought a good landing. Then it sank to ground in a crowded little aeroplane park that still bore the name Leicester Square.

As there was some time to put in before he was due to take his seat among the Fathers of the Revolution, the old man made his way through cheerful crowds toward the Embankment, and a favourite eating house. On all his rare visits to London he was struck with the

contrast between the modern fresh-complexioned Londoners, so well though simply dressed, and the Londoners of his youth, who ranged from frank shabbiness through a pathetic and unsuccessful imitation of smartness to gross ostentation. Now, even in the East End, shabbiness was abolished both from dress and houses. The slums and their inmates had vanished. There was also a subtler contrast between the earlier and the later Londoners, hard to focus. In comparison with these notably self-assured and genial faces, his memory's composite picture of the faces of former crowds expressed a chivvied, anxious, furtive, sometimes vindictive temper in which native friendliness flickered insecurely.

When he had crossed the wide stretch of grass which now flanked the Thames, he came to his eating house, right on the water's edge. It stood almost on the site where, long ago, stood Cleopatra's Needle, now repatriated. Here, too, long ago, he himself as an unemployed youth had once spat into the Thames with contempt and fury against the universe. Now, having entered the bright little building and slipped coins into appropriate slots, he served himself with coffee and cakes. He carried his tray to a table out of doors by the river. Almost the only link with the past was the dome of St. Paul's, far down stream but sharply defined and silvery grey in the purged atmosphere. Of course there was also the Waterloo Bridge, which in his young days had been a novelty, and was indeed a precursor of the new order. Across the almost clean water with its smokeless tugs and strings of barges, its pleasure-launches and its long sleek public passenger vessels, the southern bank had been transformed. Where formerly was a muddle of shabby buildings, much battered by war, stood now a rather austere form of concrete and glass, the Office of the World Commissioners in Britain. Above it waved a great flag, displaying a white orb on a bright blue field, the already storied emblem of loyalty to man. This had long been the focal symbol of that passion for humanity which, after so many decades of tragedy and heroism, had at last swollen to an irresistible torrent and founded the New World. Up stream, where formerly was the railway bridge to Charing Cross Station, the old man admired the great new road bridge, which spanned the river in a single flattened arch, impossible before the advent of the new synthetic metals. Beyond, he could see once more the tower of the new Parliament House.

The old revolutionary had reason to be proud of this new London, since he had played a modest but useful part in making it possible. He loved not only its new wide boulevards with their modern edifices, but also the old Georgian squares. The new architecture, he felt, blended into a seamless unity with the old-time buildings, a unity

symbolical of the new life of the English people. Yet he was irrationally haunted by nostalgia for the old smoky, class-ridden, snob-bound, Philistine London, the London in which, after all, men had learnt manhood without all this modern pampering. Oh well, it was time to make a move. After a few minutes' walk he was at the appropriate tier of seats in the new Great Square of London, where the procession would concentrate for the final ceremony. He settled into his place among the other ancient relics of a mythical period, feeling somehow at once a distinguished guest and an exhibit. Band music heralded the approach of the procession. Soon the first national column entered the Great Square, circled round it, and took up its allotted place. The leaders were the Chinese, the senior civilization of the world. Column by column, the representatives of all the nations followed.

As on previous occasions, each of the national contingents carried its national flag. Why, the old man wondered, did men still cling to these silly and rather dangerous local emblems? However, each nation also displayed, and in the place of honour in front of its own flag, the simple banner of the World Federation. Some of the marchers were dressed in their agricultural or industrial or other vocational uniforms. For uniforms had, of course, greatly increased in the world since the will for social cohesion had come into its own; and during the anxious period of world-reconstruction the need for economy had emphasized this tendency. But to-day's procession included many marchers in diversified and quaintly stylized individual clothing. As usual, the national columns carried with them the instruments or products of their most distinctive national occupations. Sheaves of corn, fruit, rolls of gorgeous cloth and silk, scientific and optical instruments, sleek electrical machinery, models of ships and aeroplanes, were borne upon shoulders, or on tractors which were themselves exhibits. Some peoples had deliberately stressed culture rather than industry; in particular the Germans, proudly bearing their books, musical instruments, paintings, sculpture.

It had been arranged that the peoples should be represented roughly in proportion to their actual population. Consequently the faces of the marchers were predominantly swarthy or "yellow" or black. But the columns of North America, of Northern Europe, and of European Russia showed that the fair type was still a notable factor in the human community.

At the end of the long procession came the diminutive columns of the three hostess peoples themselves, the English, the Scotch, the Welsh. Great enthusiasm and considerable amusement was caused among the spectators by the fact that at the head of each of these little companies came a rank of young mothers carrying their babies. Behind

these marched three ranks of older children, and then nurses and child-welfare workers, followed by teachers, in the grey tweed which had become the uniform of all those engaged in education, and was now the most respected cloth in the Island. Then came the Young Pioneers, boys and girls equipped for harvesting, digging, afforestation, and so on. Behind these were the representatives of the Universities and Technical Colleges, and finally the usual ranks of industry and agriculture characteristic of the Island. By giving to maternity and education pride of place in their columns the British peoples manifested to the world the fact that they were successfully stemming the decline of their population, and that their whole economy was purposefully directed toward the creation of noble future citizens.

All this was admirable. But there was a novelty, and one which was very disturbing to the old man, though it elicited from the spectators hilarity and applause. According to the official programme the innovation had been conceived by a group of young French writers and artists; and the authorities, after careful consideration, had sanctioned it as "a symbol of the new feeling for individuality which was rising in all parts of the world." Social harmony, the programme declared, was now well established, and mankind was in a position to relax its discipline and smile at its hard-won triumphs, without either disparaging the heroic self-abnegation of the founders of the New World or undermining the loyalty of its present supporters. The programme said nothing of the violent conflict of opinion which had preceded the official sanctioning of the innovation, a conflict which had led to the resignation of a number of persons in high places.

The daring new feature was this. Many of the national columns were accompanied by two or three unattached individuals whose task it was to clown hither and thither beside the marchers, and even among their ranks. Most of the columns were without these strange attendants; but besides the French, who had conceived the device and executed it with characteristic subtlety, a rather odd assortment of peoples had adopted it. The Russians, with their vein of self-criticism and their genius for ballet, the Chinese with their humour, the Irish, who welcomed every opportunity of irreverence toward authority, and the English, whose presentation was more genial than subtle—these peoples alone had found sufficient interest and moral courage to submit themselves to the penetrating fire of self-criticism.

Each of these comedians was dressed in a stylized and extravagant version of some costume prominent in his own national contingent. All were clearly meant to represent the undisciplined individuality of the common man. In their behaviour they combined something of that almost legendary film-star, Chaplin, with characters of the privileged

mediaeval jester. Sometimes they merely blundered along enthusiastically and inefficiently beside the column, vainly trying to conform to the regimented conduct of their fellows; sometimes they would seem to be torn between the spell of the group and personal impulse, breaking suddenly into an abortive caper and then shamefacedly falling into step again to bear themselves with an exaggerated air of rapture in the common rhythm. Sometimes they would stop to joke with individual spectators, and then scuttle anxiously and penitently back to their places. Occasionally one of them would attach himself to a leader of the column, mimicking his pompous bearing and military gait. Evidently, these clowns had been very carefully chosen, and were highly skilled artists; for they contrived to single out any slightly mechanical, officious or arrogant mannerisms of the leaders, and caricature them in a style that was at once devastating and kindly. Theirs was in part the flattering but sometimes shattering imitation with which children often pay tribute to their elders, and in part the friendly ridicule with which adults may temper the crude enthusiasm of the young. And such was their artistry that, in spite of their criticism of individual leaders and of the common enthusiasm, there was no doubt at all about their acceptance of the spirit of the whole occasion.

The startling climax of this daring innovation was reached in the final ceremony, which took place in the Great Square itself. As was customary, the last of the national columns saluted the dignitaries of the world and passed on to their allotted place in the Square. The flags of all the peoples were duly brought forward by their bearers into the open space before the dais, and together bowed to the ground before the great Standard of Mankind; then raised to be held erect for the rest of the ceremony. One by one the heads of the nations mounted the dais, bowed deeply to the President of the World, and handed him a book in which was inscribed a record of the particular nation's achievement during the preceding year. There followed the usual broadcast speeches by high officials, culminating in an oration by the President of the World, reviewing the whole contemporary state of the human species.

Events on the dais were of course televised, as was the procession. But this final ceremony was televised largely in "close-ups," so that all the world could appreciate its detail. There on the dais the leading personalities of the whole planet were assembled with the eyes of mankind upon them. And there, also, visible throughout the world, was the most daring novelty of all. At large among the great ones was a sort of court fool, a prince of jesters, clothed to symbolize Everyman. This individual was made up very differently from his humbler colleagues in the procession; and in spite of its humour his whole perfor-

mance had about it something sad, compassionate and trance-like. For the most part he stood quietly watching the salutations of the national representatives, or listening to the speeches; but now and then he ranged freely about the dais, making play with a fool's sceptre, to which was attached a bladder, roughly mapped with the outlines of the continents. And sometimes, while listening to a speech, he would silently and in a rapt, absentminded way, imitate the gestures of the orator, or move aside to caricature some applauding dignitary. Thus with his delicate and fleeting mimicry he would expose the foibles of the political stars among whom he was stationed. Mostly they endured the ordeal without flinching, entering amiably into the joke against themselves. But one or two failed to conceal their mortification at some shrewd hit; and then the Fool, perceiving this, immediately dropped his foolery, and with raised eyebrows turned away.

Clearly this most surprising innovation released pent-up forces in the crowd, most of whom, through their pocket television sets, must have seen the detail of these little dramas as clearly as the old man himself had done from his privileged position among the Fathers of the Revolution. He too had responded to the Fool's artistry, but with a sense of guilt, as though he were enjoying something secret and obscene. Such indulgence of individual genius, delightful as it was, must surely weaken the authority of the persons who were exposed to it, must also tend to a general loosening of the social fibre. No doubt it might be said that only a strong government could have permitted itself to be thus criticized. Only an intelligent government, and one which could count on the loyalty of an intelligent and contented population could have recognized in the device a source of strength rather than of weakness. Moreover, only a government that had sensed the changing mood of the peoples of the world, and wished to register its approval, would have troubled to submit itself to this fantastic aesthetic commentary. The old man had to admit intellectually the force of these arguments, but the innovation violated the emotional habit of one whose mind had been formed in a more primitive age.

The supreme incident was still to come. It was one which showed by its obvious power over the assembled multitude the extraordinary change that had come over mankind within a few decades. No earlier populace could have understood, still less have been so profoundly moved by, a symbol of such austere significance. The President of the World was at the height of his speech. He had been dilating upon the incredible improvement in the fortunes of the common man in all lands, and glorifying the achievement and the promise of the human species under its new regime. He was, of course, frequently interrupted by applause. After the most vociferous of these outbursts, at

the very moment when silence had been restored and the President was about to continue, the Fool stepped up to him, laid a hand on his shoulder and gently ousted the surprised orator from the microphone. Most startling fact of all, the President, with an awkward smile, acquiesced. And no one interfered.

Then the Fool, confronting the microphone, spoke to the world. "Happy, happy beings!" he said, and his quiet voice was now for the first time heard. "Happy, happy beings! But death dogs you. Conquerors of a world, but of a sand-grain among the stars! We are mere sparks that flash and die. Even as a species we are upstart, sprung so lately from beasts and fishes; soon to vanish. After us our planet will spin for aeons, and nothing will remember us. Then why, why, why are we here?"

He was silent. Throughout the Great Square there was a sound like a drift of air passing over a ripe cornfield. The whole populace had drawn in its breath. For a long moment the silence and the stillness continued, broken only by the quiet movement of the flags, and the sound of wings as a couple of pigeons settled in the Square.

Then at last the Fool spoke again. "The stars give no answer. But within ourselves, and in one another, and in our unity together, the answer lies; for in consciousness of our humanity we see deeper than through telescopes and microscopes. And from the depth of each one of us, and from our community together, a will arises; whence, we know not, but inexorable. 'Live, oh fully live!' it bids us. 'To be aware, to love, to make—this is the music that I command of all my instruments. Let your sand-grain resound with a living flood of music; harmonious in itself, and harmonized with the song of all the spheres, which I alone can hear.' Thus commands the will in us. And we, little human instruments, though death will surely hunt us down, and though our species is ephemeral, we shall obey. Weak we are, and blind, but the Unseen makes music with us."

Silence once more occupied the Great Square, and persisted. The ranked columns and the surrounding populace stood motionless, held by the Unseen. Then at last the Fool, with bowed head, withdrew from sight. And then the President, after a moment's hesitation, returned to the microphone and said, "Our celebration has found an unexpected but a fitting climax. I will say no more but that your leaders, who are also your comrades, will go forward with you to make the living music that is man." As the President retired, a murmur rose from the populace and soon swelled into an oceanic thunder of applause. When at last the noise had died down, the massed bands struck up the familiar strains of the world anthem, the "Song of Man," while the whole great company stood at attention to sing. Then the columns,

one by one, moved and wheeled, and flowed out of the Square, and the huge crowd of onlookers dispersed.

In deep abstraction and perplexity the old man threaded his way along the congested streets, brooding on the strange scene that he had witnessed. To his shame he found that tears had spilled from his eyes. Oh yes, it was a great feat of stage-craft. One could not but be moved. But it was dangerous, and subtly false to the spirit of the Revolution. The President of the World, who was surely too young a man for such a responsible post, must have known beforehand of the intended interruption. It was all a cunning bid for popularity. Worse, it was a reversion to religion, a dose of that ancient opium, shrewdly administered by the new rulers. Where would this thing end? But tears were in his eyes.

Sirius at Cambridge

from *Sirius*

The 1944 fantasy Sirius *is the biography of a dog raised to human mental status by surgical and chemical techniques developed by Thomas Trelone, a researcher on brain development. Raised in rural Wales by the scientist's wife Elizabeth and treated as a sibling to Trelone's daughter Plaxy, Sirius in his youth is kept concealed from the wider world. He is apprenticed to a farmer named Pugh and learns the skills of shepherding, while preserving his "cover" as merely an experimental "super-sheep-dog." Although hampered by poor eyesight and lack of hands, Sirius develops an intellectual life and even, with the help of a custom-made glove, the ability to write. One of the high points of the fantasy is the chapter in which Sirius emerges from his Welsh isolation to confront the academic world of Cambridge University. Stapledon uses the dog's-eye perspective for mordant commentary on human custom and behavior from an observer who, despite his nurturing, always remains profoundly estranged from both the human and the canine worlds. It is an episode full of Swiftian comedy, leavened with poignant suggestions of the tragedy of a biological misfit and culminating in eloquent nihilism.*

WHEN THE HOLIDAY WAS OVER, Thomas took Sirius to Cambridge. A private bed-sitting-room had been prepared for the wonder-dog within the precincts of the Laboratory, near a room which Thomas occupied himself. The senior members of the staff were introduced to

Sirius as "man to man," on the understanding that they must keep the secret and behave in public as though this dog were only a rather specially bright super-sheep-dog.

Sirius was at first very happy at Cambridge. The bustle of city and university, though rather bewildering, was stimulating. During the first few days he spent much time in wandering about the streets watching the people, and the dogs. The abundance of the canine population surprised him, and so did the extraordinary diversity of breeds. It seemed to him incredible that the dominant species should keep so many of the dominated species alive in complete idleness, for not one of these pampered animals had any function but to be the living toy of some man or woman. Physically they were nearly all in good condition, save for a common tendency to corpulence, which in some cases reached a disgusting fulfilment. Mentally they were unwholesome. How could it be otherwise? They had nothing to do but wait for their meals, sink from boredom into sleep, attend their masters or mistresses on gentle walks, savour one another's odours, and take part in the simple ritual of the lamp-post and the gate-post. Sexually they were all starved, for bitches were few, and jealously guarded by their human owners. Had not the canine race been of sub-human intelligence, they must one and all have been neurotics, but their stupidity saved them.

Sirius himself had often to act the part of these sub-human creatures. When Elizabeth took him out to visit her friends he allowed himself to be petted and laughed at, or praised for the "marvellous intelligence" that he showed in "shaking hands" or shutting the door. Then the company would forget him completely, while he lay stretched out on the floor in seeming boredom, but in fact listening to every word, and trying to get the hang of some conversation on books or painting; even furtively stealing a glance at drawings or bits of sculpture that were circulated for inspection.

Elizabeth did her best to give Sirius a fair sample of life in a university city. It became a sort of game with her to contrive means to insinuate him into meetings and concerts. After the simple subsistence life of the sheep-country, Cambridge filled him with respect for the surplus energies of the human species. All these great and ornate buildings had been put up stone by stone, century by century, with the cunning of human hands. All these articles in shop-windows had been made by human machinery and transported in human trains, cars and ships from the many lands of human occupation. Perhaps most impressive of all to his innocent mind was the interior of a great library, where, by patient intrigue, Elizabeth managed to effect an entry for him. The thousands of books lining the walls brought home to him as nothing else had done the vast bulk and incredible detail of

human intellectual tradition. He stood speechless before it all, his tail drooping with awe. As yet he was far too simple-minded to realize that the majority of the volumes that faced him, shoulder to shoulder, were of little importance. He supposed all to be mightily pregnant. And the naïve belief that he could never attain wisdom until his poor eyes had travelled along most of those millions of lines of print filled him with despair.

Thomas had decided that the time had come to let out the secret of Sirius's powers to a carefully selected public. A number of his scientific and academic friends must be allowed to make the dog's acquaintance and form their own opinions of his ability, on the understanding that the truth must not yet be published. His policy was still to keep the greater public from sharing the secret, lest the forces of commercial stunt–manufacture should be brought to bear on his work, and possibly wreck it.

He arranged for Sirius to meet a few eminent persons in the University, mostly zoologists, biochemists, biologists of one sort or another, but also psychologists, philosophers, and philologists, who would be interested in his speech, and a few stray surgeons, painters, sculptors and writers who happened to be among Thomas's personal friends. These meetings generally took place after a lunch in Thomas's rooms. Over the meal Thomas would tell the party something about his experiments and the success of the super-sheep-dogs. Then he would lead on to his more daring research, and describe Sirius as "probably quite as bright as most university students." When lunch was over, the small company would settle in easy chairs with their pipes, and Thomas, looking at his watch, would say, "I told him we should be ready for him at two o'clock. He'll be along in a minute." Presently the door would open and the great beast would stalk into the room. He did not lack presence. Tall and lean as a tiger, but with a faint suggestion of the lion's mane, he would stand for a moment looking at the company. Thomas would rise to his feet and solemnly introduce his guests one by one to Sirius. "Professor Stone, anthropologist, Dr. James Crawford, President of ——— College," and so on. The guests generally felt extremely ill at ease, not knowing how to behave, and often suspecting that Thomas was playing a trick on them. Sometimes they remained stolidly seated, sometimes they rather sheepishly rose to their feet, as though Sirius were a distinguished human newcomer. Sirius looked steadily into the eyes of each guest as he was introduced, acknowledging him with a languid movement of his great flag of a tail. He would then take up his position in the centre of the company, generally squatting down on the hearth-rug. "Well," Thomas would say, "first of all you want to know, of course, that Sirius really

can understand English, so will someone ask him to do something?" Often the whole company was so paralysed by the oddity of the situation that it took a full half-minute for anyone to think of an appropriate task. At last the dog would be asked to fetch a cushion or a book, which of course he straightway did. Presently Thomas would carry on a conversation with Sirius, the guests listening intently to the strange canine speech, and failing to understand a word of it. Then Sirius would say a few simple words very slowly, Thomas translating. This would lead on to a general conversation in which the guests would often question the dog and receive the answer through Thomas. Not infrequently Sirius himself would question the visitors, and sometimes his questions were such that Thomas was obviously reluctant to pass on. In this way the guests received a clear impression of a strong and independent personality.

And in this way Sirius himself gradually reached certain conclusions about these distinguished specimens of the dominant species. One characteristic about them perplexed him greatly. It was such a deep-seated thing that they themselves did not seem to be aware of it. One and all, they undervalued or misvalued their hands. Many of them, in fact all but the surgeons, sculptors, painters, and research workers, were wretchedly clumsy with their hands, and by no means ashamed of it. Even those whose work involved manual skill, the surgeons, sculptors and so on, though they were so skilled in their own specialized technique, had often lost that general handiness, that manual versatility, by which their species had triumphed. On the whole they were helpless creatures. Hands were for them highly specialized instruments, like the bird's wing or the seal's flipper, excellent for some one action, but not versatile. Those that came on bicycles never mended their punctures themselves. They could not sew on their buttons or mend their socks. Moreover even these specialized geniuses of the hand had to some extent been infected by the general contempt for "manual toil," which the privileged class had invented to excuse their laziness. As for the writers, academics, lawyers, politicians, their unhandiness and their contempt for mere manual dexterity were amazing. The writers couldn't even write properly. They fell back on the cruder activity of pressing typewriter keys. Or they simply dictated. Sirius had heard that in Old China the scholar class let their finger-nails grow fantastically long so that their incapacity for manual work should be obvious. Think of the millions of cunning hands thus wasted! How he despised these regressive human types for the neglect and atrophy of the most glorious human organ, the very instrument of creation; and for infecting with their contempt for manual skill even the manual workers themselves, on whose practical dexterity the

whole structure of civilization was founded! Artisans actually wanted their sons to "rise" into the class of "black-coated" workers. What would not Sirius himself have achieved if he had been given even the clumsy hands of an ape, let alone the least apt of all these neglected human organs!

The first few weeks at Cambridge were indeed delightful for Sirius. Every morning some bit of research was done upon him at the Laboratory, with his interested co-operation. Sometimes it was a case of studying his motor or sensory reactions, sometimes his glandular responses to emotional stimuli, sometimes his intelligence, and so on. X-ray photographs had to be made of his skull, gramophone records of his speech. With the co-operation of a psychologist he himself planned to write a monograph on his olfactory experiences, and another on his power of detecting human character and emotional changes by scent and tone of voice. Psychologists and musicians studied his musical powers. His sex life had also to be recorded.

In addition to all this strictly scientific work, in which Sirius collaborated with his human observers, he planned to undertake two popular books entirely on his own. One was to be called *The Lamp-post, A Study of the Social Life of the Domestic Dog.* The opening passage is interesting for the light which it throws on Sirius's temperament. "In man, social intercourse has centred mainly on the process of absorbing fluid into the organism, but in the domestic dog and to a lesser extent among all wild canine species, the act charged with most social significance is the excretion of fluid. For man the pub, the estaminet, the Biergarten, but for the dog the tree-trunk, the lintel of door or gate, and above all the lamp-post, form the focal points of community life. For a man the flavours of alcoholic drinks, but for a dog the infinitely variegated smells of urine are the most potent stimuli for the gregarious impulse." The other projected book, *Beyond the Lamp-post,* he kept a dead secret. It was to be autobiographical, and would express his philosophy of life. These works were never completed; the second was scarcely even begun, but I have found the random notes for it extremely useful in writing Sirius's biography. They reveal a mind which combined laughable naïvety in some directions with remarkable shrewdness in others, a mind moreover which seemed to oscillate between a heavy, self-pitying seriousness and a humorous detachment and self-criticism.

It was flattering to Sirius to be the centre of so much interest; and it was very unwholesome. Inevitably he began to feel that his mission was after all simply to be his unique self, and to allow the human race respectfully to study him. Far from retaining the humility that had oppressed him on his visit to the library, he now swung away towards

self-complacency. As his presence became more widely known, more people sought his acquaintance. Thomas received innumerable invitations from outside the chosen circle, persons who had evidently heard vague rumours of the human dog and were eager to verify them. When Sirius was out in the streets people often stared at him and whispered. Thomas strongly disapproved of his going out by himself, lest attempts should be made to kidnap him. The anxious physiologist even went so far as to hint that unless his precious charge agreed never to go out without a human escort he would have to be confined to the Laboratory. This threat, however, infuriated Sirius; and Thomas recognized that, if it were carried out, all friendly co-operation would cease. The best he could do was to engage a detective to follow the dog on a bicycle whenever he went out of doors. Sirius conceived a humorous dislike of this individual. "He's rather like a tin can tied to my tail, he and his clattery old bike," said Sirius; and henceforth always referred to him as "Old Tin Can." The game of giving Old Tin Can the slip or leading him into awkward situations became Sirius's main outdoor amusement.

Contrary to his original intention Sirius spent the whole of that autumn term at Cambridge. Though he was often very homesick for the country, and nearly always had a headache and often felt seedy, he found Cambridge life far too fascinating to surrender. Several times he did, indeed, suggest to Thomas that he ought to be moving on; but Thomas was reluctant to break off the research, and Sirius himself was too comfortable to find energy to press the matter.

Very soon the Christmas vacation was upon him, and he went back to Wales with Thomas, Elizabeth, and Plaxy. Once more on the hills, he discovered that he was in a sorry state of physical decay, and he spent much of his time trying to restore himself by long hunting expeditions.

During the spring term Sirius was less happy. The glamour of Cambridge had begun to fade, and he was increasingly restless about his future; the more so because Cambridge was like a habit-forming drug. By now he obtained only a mild satisfaction from it, yet it had got into his blood and he could not bring himself to do without it. He had arrived in Cambridge, an anatomical study of bone and muscle. A soft, inactive life, which included far too many delicacies received in the houses of admiring acquaintances, had already blurred his contours with a layer of fat, and filled out his waist. Once when he met Plaxy in the street, she exclaimed, "Gosh! You're going fat and prosperous, and you waddle like a Pekinese." This remark had greatly distressed him.

Along with physical decay went a less obvious mental decay, a

tendency to sink into being a sort of super-lap-dog-cum-super-laboratory-animal. His disposition became increasingly peevish and self-centred. There came a day when a serious difference occurred between Sirius and McBane. Thomas's lieutenant had prepared a piece of apparatus for a more minute research into Sirius's olfactory powers. Sirius protested that he was not in the mood for such an exacting bit of work to-day; his nose was in a hypersensitive state and must not be put to any strain. McBane pointed out that, if Sirius refused, hours of preparation would be wasted. Sirius flew into a whimpering tantrum, crying that his nose was more important than a few hours of McBane's time. "Good God!" cried McBane, "you might be a prima donna."

Thomas had been surprised and pleased at the way in which Sirius had settled down to his new life. It seemed as though the dog had outgrown his romantic cravings, and was reconciled to becoming a permanent property at the Lab. But in his second term, though Sirius was still superficially able to enjoy his work, on a deeper level of his mind he was becoming increasingly perturbed and rebellious. This life of ease and self-gratulation was not at all what he was "meant for." The mere shortage of physical exercise made him miserable. Sometimes he cantered a few miles along the tow-path, but this was very boring; and he was always oppressed by the knowledge that the faithful detective was following on a bicycle. He could not force himself to run every day. Consequently he was generally constipated and disgruntled. He felt a growing nostalgia for the moors, the mists, the rich smell of the sheep, with all its associations of hard work and simple triumphs. He remembered Pugh with affection, and thought how much more real he seemed than these dons and their wives.

He was vaguely aware too of his own moral decay. It was increasingly difficult for him to do anything that he did not want to do. Not that he was incapable of all mental effort, for he still generally carried out his intellectual work with conscientious thoroughness. But then, he happened to like that. What he was failing to do was to control his ordinary selfish impulses in relation to his human neighbours. He was also growing less capable even of prudential self-regard.

For instance there was the matter of bitches. Of the few bitches that he encountered in the Cambridge streets, most were anyhow too small for him, and many had been treated with a preparation which disguised the animal's intoxicating natural odour, and made potential lovers regard her as a filthy-smelling hag. He insisted to Thomas that, since in Cambridge there was practically no scope at all for lovemaking, bitches must be provided for him. It was not to be expected that a vigorous young dog should be able to do without them and yet maintain his mental balance. So a succession of attractive females was pro-

cured for him. These creatures were brought in turn and at appropriate times to his rooms in the Laboratory; and the whole matter was treated as part of the prolonged and complicated scientific study in which he was co-operating. The Laboratory, by the way, had analysed the chemistry of the odours which were sexually stimulating to Sirius, and could choose seductive animals for him with considerable success. But, his appetite instead of being assuaged, increased. Almost daily they brought a young bitch to his room, yet he was never satisfied. Indeed he became more and more lascivious and difficult to please. Thomas urged him to take himself in hand, otherwise his mental vitality would be sapped. Sirius agreed to do this, but failed to carry out his promise. And now a note of sadism crept into his lovemaking. Once there was a terrible commotion because in the very act of love he dug his teeth into the bitch's neck.

This incident seems to have frightened Sirius himself, for a change now came over him. Dreading that dark power that seemed to rise up within him and control his behaviour, he made a desperate effort to pull himself together. He also determined to leave Cambridge at once and go back to Wales for a spell with the sheep. Thomas reluctantly agreed that he had better go, but pointed out that he was in no condition to undertake sheep work again without some weeks of severe physical training. This was all too true. The best that could be done was that Thomas should arrange with Pugh to take him for a month not as a sheep-dog but as a paying guest. This plan was much discussed, but somehow Sirius could not bring himself to such an ignominious course. In default of a better policy he simply stayed on at Cambridge till the end of the term. There followed an Easter Vacation in Wales, given over wholly to physical training in preparation for a spell of sheep-tending in Cumberland. But as no satisfactory arrangement could be made for him, the lure of Cambridge proved in the end too strong, and he returned with Thomas for the summer term.

In the familiar environment the old way of life proved fatally easy. Laboratory work, meetings with Thomas's scientific or academic friends, a great deal of desultory biological and other scientific reading, a certain amount of philosophy, the writing of his monographs and notes for *The Lamp-post* and *Beyond the Lamp-post*, select parties at which he was lionised by the wives of dons, the perennial shortage of exercise, a succession of bitches, all this told upon his health and loosened his character. He developed more and more the prima donna disposition. He became increasingly self-centred and self-important. Yet all the while, deep in his heart, he felt completely disorientated and futile, spiritually enslaved to the will of man.

At last, when he felt in himself a return of sadistic impulses, he

was seized with such a terror of sheer madness that he once more gathered all his moral strength together for a great recovery. He set himself a course of strict self-discipline and asceticism. He would have no more bitches. He would cut down his food by half. Sometimes he would fast; and "pray to whatever gods there be." He would take exercise. He would co-operate conscientiously with the Laboratory staff in their researches on him. He would once more tackle his literary work; for even this, which had for long been his one remaining active interest, had recently been dropped.

For a while he did indeed live a more austere life, punctuated by bouts of wild self-indulgence; but presently his resolution began once more to fail, and he found himself slipping back into the old ways. Terror seized him; and a desperate loneliness in the midst of his social contacts. He felt a violent need for Plaxy, and sent her a note, asking her to come for a good walk with him.

Plaxy gladly made an appointment with him, but the day was not a success. She was naturally very absorbed in her university life; and though Sirius was in a manner a member of the same university, their experiences did not overlap. Lectures, essays, meetings, dances, and above all her new friendships filled her mind with matter that was remote from Sirius. At first they talked happily and freely, but there was no depth of intimacy between them. Several times he was on the verge of blurting out his troubles; but to say, "Oh, Plaxy, help me, I'm going to hell," which was what he wanted to say, seemed somehow preposterous. Moreover, as the day wore on, he began to suspect from a faint change in her odour that she was growing subconsciously hostile to him. He had been talking to her about the bitches. It was then that her scent had begun to take on a slight asperity, though in speech and manner she remained quite friendly. Towards the end of the day a gloomy silence fell upon them both. Each tried to dispel it with light talk, but vainly. When at last they were on the point of parting, and Plaxy had said, "It was nice to be together again," Sirius registered in his own mind the fact that her odour had been growing mellower as the parting approached. "Yes, it's good indeed," he said. But even as he said it the human smell of her, though unchanged in its sensory quality, began to nauseate him.

In order to return to the Laboratory he had to cross the town. He strolled off, without any positive desire to reach his destination, or indeed to do anything else. As he drifted along the streets, he felt stifled by the surrounding herd of the grotesque super-simians who had conquered the earth, moulded the canine species as they trimmed their hedges, and produced his unique self. Feelings of violent hatred surged up in him. A number of significant little memories presented

themselves to his embittered mind. Long ago in a field near Ffestiniog he had come upon an angel-faced little boy taking baby thrushes out of a nest and skewering them one by one on a rusty nail. More recently in a Cambridge garden he had watched a well-dressed woman sitting on a seat and fondling a dog's head. Presently she looked about as though to see if she was being observed. There was no one but Sirius, a mere animal. Still stroking the dog with one hand, she reached out with the other and pressed her lighted cigarette end into the creature's groin. This streak of sexual cruelty in human beings horrified Sirius all the more because he himself had indulged in something of the sort with his bitches. But he persuaded himself that this aberration in him was entirely due to some sort of infection from man, due, in fact, to his human conditioning. His own kind, he told himself, were not by nature cruel. Oh, no, they always killed as quickly as possible. Only the inscrutable and devilish cat descended to torture.

It was all due to man's horrible selfishness, he told himself. *Homo sapiens* was an imperfectly socialized species, as its own shrewder specimens, for instance H. G. Wells, had pointed out. Even dogs, of course, were self-centred, but also far more spontaneously social. They might often fight for bones or bitches, and they persecuted one another for the glory of dominance; but when they *were* social they were more wholeheartedly social. They were much more ready to be loyal absolutely, without any secret nosing after self-advantage. So he told himself. They could give absolute, disinterested loyalty; for instance to the human family that claimed their pack-allegiance, or to a single adored master, or to the work that was entrusted to them. The sheep-dog didn't expect to get anything out of his job. He did it for the work's sake alone. He was an artist. No doubt some men were as loyal as any dog, but Cambridge life had taught Sirius to smell out self-regard under every bit of loyalty. Even Plaxy's affection for him seemed in his present mood merely a sort of living up to a pattern for her precious self, not real self-oblivious love. Or take McBane. Was it science or the budding great scientist, Hugh McBane, that really stirred him? Sirius had noticed that he smelt most excited and eager whenever some little personal triumph was at stake. Then there were all those prominent people that he had met at Thomas's lunch parties—biologists, physicists, psychologists, doctors, surgeons, academics, writers, painters, sculptors and God-knows-what-all. They were so very distinguished, and all so seeming modest and so seeming friendly; and yet every one of them, every bloody one of them, if he could trust his nose and his sensitive ears, was itching for personal success, for the limelight, or (worse) scheming to push someone else out of the limelight, or make someone in it look foolish or ugly. No doubt dogs would be just as

bad, really, except when their glorious loyalty was upon them. That was the point! Loyalty with dogs could be absolute and pure. With men it was always queered by their inveterate self-love. God! They must be insensitive really; drunk with self, and insensitive to all else. There was something reptilian about them, snakish.

Long ago he had idealized humanity. His silly uncritical, canine loyalty had made him do so. But now his practised nose had found out the truth about the species. They were cunning brutes, of course, devilishly cunning. But they were not nearly so consistently intelligent as he had thought. They were always flopping back into sub-human dullness, just as he was himself. And they didn't *know* themselves even as well as he knew himself, and not half as well as he knew them. How he knew them! He had been brought up in a rather superior family, but even the Trelones were often stupid and insensitive. Even Plaxy knew very little about herself. She was so absorbed in herself that she couldn't see herself, couldn't see the wood for the trees. How often she was unreasonable and self-righteous because of some miserable little self-regard that she herself didn't spot. But *he* spotted it all right, oh yes! And she could be cruel. She could make him feel an outcast and a worm, just for spite.

What enraged him most of all about human beings, and particularly the superior ones that he met in Cambridge, was their self-deception. Every one of them was quite different really from the mask that he or she presented to the world. McBane, for instance. Of course he really *was* devoted to science, up to a point, but more so to himself; and he daren't admit it, even to himself. Why couldn't he just say, "Oh, I know I'm a selfish brute at heart, but I try not to be"? Instead, he pretended to have a real sheep-dog loyalty to science. But he didn't really *use himself up* for science. Perhaps he might some day, just as Thomas did. Some day he might be ready to die for science even. But if he did, he would really be dying not absolutely for science, but for his own reputation as a devoted scientist.

Oh God! What a species to rule a planet! And so obtuse about everything that wasn't human! So incapable of realizing imaginatively any *other* kind of spirit than the human! (Had not even Plaxy failed him?) And cruel, spiteful! (Had not even Plaxy had her claws in him?) And complacent! (Did not even Plaxy really, in her secret heart, regard him as "just a dog"?)

But what a universe, anyhow! No use blaming human beings for what they were. Everything was made so that it had to torture something else. Sirius himself no exception, of course. Made that way! Nothing was *responsible* for being by nature predatory on other things, dog on rabbit and Argentine beef, man on nearly everything, bugs and microbes on man, and of course man himself on man. (Nothing but

SCIENCE FICTION

"To read him means taking a leap out from our provisional and temporary sets of mind into a realm that is beyond current notions of space and time, is somewhere in the future of mankind where we have, as a species, still to set foot."

—Doris Lessing

Olaf Stapledon (1886–1950)—philosopher, novelist, educator, and social activist—had an imagination unlike that of any other author. Along with H. G. Wells he is remembered as one of the most original pioneers of twentieth-century science fiction.

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Front cover: Oil painting by Frederick A. Wellner entitled *Last Flight,* based on Olaf Stapledon's *Last and First Men.*

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