

The Image of Science and Technology in Utopian and Science Fiction Literature

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IN A WORLD in which the important is so often trivialized it is appropriate that at least sometimes we treat the trivial as a matter of importance. To be sure, utopian literature and science fiction are not always trivial for they touch on questions which are among the crucial issues of this or any time and as imaginative literature they occasionally bear the marks of creative greatness. Furthermore, I do not wish to be thought "that peculiarly irritating kind of person," described by Kingsley Amis,¹ "the intellectual who takes a slumming holiday in order to 'place' some 'phenomenon' of 'popular culture'." Still science fiction and utopian literature are, and probably will remain, for most men, and among those, even their most avid "consumers," trivial.

That, perhaps, is an unavoidable state of affairs given its intensity of interest in ideas and plot and the deficiency of interest in character and the exploration of the commonplaces of the human condition. However, if it is even partially true that men's waking hours take the color of their dreams then the fantasies of utopia and the extrapolations of science fiction offer small comfort to a troubled humanity beyond their power to entertain and, at their best, engage us with heroic character and for-

mally satisfying art.² Ordinarily that is enough to ask of art. But of an art which anticipates and projects the future and by implication criticizes the state of things in the present we ought to ask more. The more that we ought to ask is verisimilitude to things as they are and to human behavior as we can expect it, in the long run, to be. The more that we ought to ask is a vision of social reality in which both the potentialities and the limitations of planning, science and rationality are assayed and brought into some kind of equilibrium with our full human natures. My accusation is not that most science fiction and utopian literature is essentially escapist. That almost goes without saying although, of course, there are exceptions. My accusation is, rather, that utopian literature and science fiction even in the form of the dystopian novel and the dystopian science fiction literature of the past generation have not dealt in a realistic fashion with the problems with which science and technology confront mankind. Rather, both the alternatives of a scientific, rationalized society and its pastoral counterpart have been presented with a carelessness about historic experience and a casualness about what we know of human nature which inspires little

confidence. Moreover, far from being new and in keeping with "science" most of the categories and themes of science fiction and utopian literature are borrowed from the myth systems of archaic society. They have, indeed, little to do with the reality of the twentieth century.

This last criticism may, in certain respects, be the most important we can make of science fiction and utopian literature. Their themes are among the most ancient themes in prophetic literature of any kind. Cities and empires sunk in mindless, or worse still, calculating decadence, societies abandoned to technological depravity; these are the commonest grist of science fiction stories and dystopian novels. The fear of anarchy is only a little less hateful and over-mastering than the anxiety generated by perfect order. Cataclysm and apocalypse whether through cosmic disaster, human foolishness, technological usurpation or an invasion from space provide the pseudo-historical events out of which many science fiction sagas develop. The ontological anxieties, apocalyptic expectations, millennial hopes and preoccupations with decadence which have been so characteristic of Western thought since the mid-eighteenth century are the very stuff out of which the mood of science fiction is constructed. That the Jehovah's Witnesses and the readers of *Analogue* share a common ground of archaic myth is not often recognized and is, indeed, obscured by the pretensions to science which are so essential a part of science fiction.³ Armageddon and doomsday and the spiritual regeneration thereafter are the uneasy themes of science fiction cosmological speculation. The historical fabric of science fiction is mythological rather than scientific. The historian, however, knows that though private and social worlds may die the world endures.

It is a matter of considerable interest and importance that currently cataclysm and apocalypse are increasingly depicted as the consequence of ecological folly, overpopulation and, an old theme which has received recently a number of new twists, alienation

and estrangement from nature. It is as though science fiction writers had collectively joined the "Club of Rome," never mind that the "Club of Rome" is producing some rather weird science fiction.⁴ This penchant on the part of science fiction to keep abreast of the headlines and clothe the current intellectual superstitions with the poetry of science is as old as the genre. One of the chief characteristics of cosmological myth, indeed, of myths of any kind, is their affinity for alien systems and the ease with which they disguise themselves in the current trappings of modernity.

While science fiction ordinarily provides us with a pseudo-history in which disguised myths parade as actual events, utopian literature takes place outside the realm of historic time. The transition from before utopia to after utopia, that politically problematic era in which the old is laid aside and the new is tried, is in most cases, simply not discussed. There is no attempt made to deal, as scientific history would deal, with process, development and the critical problem of transition.⁵ As with myth, the completed system is suddenly there, *ex nihilo*. The hero of *Looking Backwards*, Julian West, suddenly awakens in the year 2000 to find the Boston of his dreams a reality without any of the inconvenience of dealing with the peculiar political wrong-headedness of Boston in particular and Massachusetts in general on the way to getting to utopia.

The failure to describe the process by which a society enters utopia is equaled by the failure to present utopia as a society in which significant social change, significant history, takes place. Once utopia has been achieved the writers of utopian literature generally assume that the utopian conditions will persevere and that mankind will continue to live in a static and changeless condition. When this assumption is not made and the danger and challenge of change are apparent to the writer, the government of utopia spends at least a portion of its effort in devising and justifying ways

to keep the utopian society static and changeless.⁶ An insight into the complicated and mysterious workings of history, that great fabric which like Penelope's web is being constantly woven and unwoven, is almost totally lacking in utopian literature. It is lacking because utopian literature is mythic in its structure and its content. The utopian myth is a secularized form of the myths of regeneration characteristic of archaic society.⁷ The object of the utopian myth is to overcome alienation and the ravages of time and to restore society to its condition *in illo tempore*.

In the Western world there are three great myths of the abolition of time and history. The earliest and the most fundamental of these myths is the Myth of the golden age, or of paradise. Eden, paradise, the golden age are all symbols of an earth which does not yet know alienation, a world in which contradiction has not yet arisen, a society which does not know conflict and has not suffered sin and death. It is the land of heart's desire, the land of the big rock candy mountain. It is the golden age of sex and indolence. It should be no surprise that given the realities of human existence and the occasional taste of well-being, harmony and ecstasy, men should envision a time when all life was as it only now occasionally is and should, indeed, invent a way to repair time's ravages, time's erosion, and bring men back to that happy and idyllic pastoral life which characterized the beginning of things. The golden age stands at the beginning of time, or is an era introduced by time's regeneration or some happy fresh start. It is represented as the natural condition of man before the primal fall, before history has exerted its corrosive influences on mankind. It is little wonder that the restoration of paradise, whether in the form of the golden age, the New Jerusalem or utopia always involves the abolition of history.

Harry Levin remarks that "the Biblical Story commences in a garden and concludes in a city."⁸ The New Jerusalem, however, is the city transformed. Sodom, Baby-

lon and Rome are transfigured. They are cities in which, through God's grace and the mystery of the incarnation, alienation will be overcome. The millennium stands at the end of time while Eden stands at its beginning. Millennium is an order based upon the fullness of knowledge rather than the totality of innocence. If in Eden, men did as they liked, in the New Jerusalem men like to do what they ought; its motto is that of Dante's paradise, "In His Will is our Peace."

The golden age was, and continues to be, the imaginative refuge of paganism, the millennium the hope of Christianity, while utopia which is neither totally pagan nor Christian stands in the middle and borrows from each. Utopias have been, and continue to be, perceived predominately in urban terms. That should not surprise us for the utopian landscape is a secularized version of the city of God where man by art and reason achieves for himself the overcoming of alienation.⁹ The object of utopia is to achieve in time what millennia grants outside of time and the golden age provides before the onset of time. Instead of regenerating time through the archetypal cosmological creative gesture or through the transforming consequences of the incarnation, utopia achieves bliss through reason and science. Utopias are almost inevitably geometric and scientific constructions. While their object is the restoration of paradise, the return of harmony and the healing of alienation, they seek to achieve this through the fullness of knowledge (at least on the part of the utopian elite), rather than through the totality of innocence. System, conformity, equality and rationalization, it is hoped, will achieve what freedom, spontaneity and grace achieve in the millennial kingdom.

Consequently, utopia, whatever its aspirations, is dependent upon science and rationality. However, science and rationality lie, by definition, in the realm of the necessary rather than the spontaneous, the contingent and the free. Consequently, utopia is haunted by the problem of the loss

of freedom and virtue. It is not that technology and rational planning tend to consequences which were not or could not be anticipated. The dystopian or anti-utopian novels do not simply depict societies which were surprised by disaster. The disasters indeed, are an inevitable element in the totally planned and the totally scientific society. Because utopia has been removed from history and has become the embodiment of myth, it is no longer capable of dealing with the reality of society in which the accidental is not so much evidence of defect as it is a sign of grace.

In utopia, however, there is no room for accident. Doomsday, from the novels of H. G. Wells at the turn of the century to the anti-utopian novels of the present, is most often the consequence of perfection rather than the result of some failure of anticipation or some rupture in the fabric of rationality. Decadence falls over the society which is too orderly, and humanity is destroyed by a science which is both too heartless and too all-inclusive. The anti-utopians fear a science and rationality run amok. The anti-utopian novelist prefers barbarism to an effete degeneracy, deadly combat to enervating peace, and the natural life of the countryside to the artificialities of the great urban technocratic centers of the future. Indeed, the anti-utopians say over and over again that present discontents and the burden of historic existence are to be always preferred to the mythic existence outside of history where challenge and failure have been eliminated by social calculation.

Still, it is precisely this social calculation in its scientific, technological and bureaucratic forms which has made the secularization of paradise possible. Shorn of a utopian dimension contemporary revolutionary movements would be unthinkable. Utopia is the precondition of revolution and the revolutionary movement is simply the method by which a scientific and rational paradise will be brought to earth. The objective is the abolition of alienation, the abolition of scarcity, the harmoniza-

tion of interests and the deification of man. The ultimate purpose is to make men as powerful as the Gods and to grant to them, day in and day out, those unalloyed pleasures which exist only in paradise. Science and rationality, consequently, become the handmaidens of the Promethean dreamer. They are the forethought and the instrumentality of revolution. When Lenin defined communism as "electrification plus socialism" he was not simply inventing an encouraging slogan; he was defining the nature of both revolution and utopia. For this reason science fiction writing in the Soviet Union¹⁰ cannot exhibit any of those concerns or anti-scientific tendencies which play such a major role in Western science fiction and anti-utopian novels. If alienation and historical change are, by definition, overcome by science, rationalization and bureaucracy, how can they lead to dehumanization and disaster? Granted the perfectability of man and the adequacy of the means, there is within the utopian system no explanation for the onset or the continuation of the evils which beset the human condition.

It hardly needs to be pointed out, however, that in Western science fiction and in the Western anti-utopian novel, science, technology, rationalization and bureaucracy are seen either as the source itself of social crisis and dehumanization or as the tools of anti-humane and depersonalizing groups and tendencies within the society. Far from being the means by which alienation is overcome, science and technology induce, feed upon and heighten alienation. Man's estrangement from nature and the disruption of the patterns of community by mechanistic and atomistic individualism are seen as extensions of the scientific epistemology by which we know through an act of estrangement and objectification. Manipulation is possible only because of depersonalization. All the horrors of the anti-utopian and science fiction world may be summed up by describing them as worlds from which humanity has all but disappeared and only "things" have any exist-

tence or value. The anti-utopian and science fiction literature of the Western world present a world in which love has died, community has disintegrated and men are estranged from nature. Although science itself, as a contemplative exercise, may not be judged guilty, technology is always accused.

Throughout the nineteenth and twentieth centuries the Western literary intelligentsia have been overwhelmingly anti-technological. From Jonathan Swift to D. H. Lawrence and Aldous Huxley they have, very nearly to a man, abominated the machine. They have been, moreover, nearly as contemptuous of reason and science itself. It is clear now that although in one or another of the literary intellectuals there may have been proletarian enthusiasms, their values as a group, have been elitist and aristocratic. They have scorned, absolutely, the petty utilitarian values reflected in utopian dreams. Though members of the literary intelligentsia may themselves be Prometheans, that is, they may believe that men through their own effort may become as Gods, they reject absolutely the idea of divinity most utopians hold. George Orwell spoke for all of them when he said of H. G. Wells and utopians who shared Wells' enthusiasms:

. . . Barring wars and unforeseen disaster, the future is envisaged [by them] as an even more rapid march of mechanical progress; machines to save work, machines to save thought, machines to save pain, hygiene, efficiency, organization, more hygiene, more efficiency, more organization, more machines—until finally you land up in the by now familiar Wellsian Utopia, aptly caricatured by Huxley in *Brave New World*, the paradise of little fat men. Of course in their daydreams of the future the little fat men are neither fat nor little; they are men like Gods."¹¹

George Orwell and the literary intellectuals rejected utopia not only because of the danger they thought it posed to humanity

but even more because it presented men with what they believed to be an unworthy vision of the future, "the paradise of little fat men."

The writers of anti-utopian novels and science fiction epics in spite of the fact that they wrote, in many cases intelligently, about science and technology, shared the values of the literary intelligentsia. They too placed a major emphasis on doing rather than enjoying, an adventure rather than freedom from want or pain, on freedom itself rather than security. Even where the subject matter of literature was science the writer belonged to the literary rather than to the scientific culture. I, for one, admit the validity of much of the charge C. P. Snow made in his famous essay on the two cultures and I assert categorically that the gulf between the cultures is not abridged by science fiction. I say this even though science fiction draws its audience from the educated and particularly from technological professionals and even though its writers frequently have a professional scientific or technological background.¹²

Indeed there is a great deal of evidence to suggest that the anti-technological direction contemporary Western culture has taken was anticipated, even announced, in science fiction a full decade before it became a commonplace in the society as a whole. I do not mean to suggest that science fiction invented the cult of irrationality and hostility to science which is so much a part of our current cultural ambiance. That anti-scientific and irrational bent is nearly a full two hundred years old and is part and parcel of cultural romanticism.

Nor do I confuse irrationalism with the strong bent of a good deal of science fiction to pastoralism, the desire to run away from the city or from technopolis and live an uncomplicated life in the woods. Certainly there are strong affinities between pastoralism and anti-scientific irrationalism, though pastoralism has from time to time been combined with the notion of a technologically perfected society. The tendency to pastoralism however is an important and

a symptomatic one and the yearning to overcome alienation from nature easily lapses into an anti-technological stance. The theme of escape and rural nostalgia is an old one in science fiction and as with so many science fiction themes was anticipated by H. G. Wells in *Story of Things to Come*. Clifford D. Simak, a kind of poet laureate of pastoralism (*Ring Around the Sun*), deals with hardly any other theme. Since the advent of the ecological wave the stream of writing in this tradition has broadened and deepened and much of it verges on the openly anti-technological.

Walter Hirsch in his content analysis of science fiction has pointed out that in the past two decades there has been a steady and significant decline in science fiction plots that resort to scientific and technological solutions to problems.¹³ Increasingly the solution to problems has been sought in "social science," the intervention of "aliens," that is, natives of other planets, and finally in magic and charisma. This indeed, seems a remarkable tendency to find expressed in what purports to be "science fiction."

The tendency becomes much clearer when we observe that scientists as a group appear most frequently in science fiction writing as villains and are followed in the role of villain, but not at all closely, by businessmen.¹⁴ Professor Hirsch suggests, rightly I believe, that this tendency may indicate a willingness, indeed an attempt, by our culture to resort to magical solutions, a rise in irrational tendencies and perhaps is indicative of a "loss of nerve." It should be pointed out that the writers of this science fiction are not men attempting to write dystopian or anti-utopian novels. They are the writers of the garden variety fiction which fills the science fiction journals and the paperback racks at the local drugstore.

Nor are these stories in which rationality, science and technology are abandoned at the periphery of this literary genre. In the 1950's and 1960's the "classic" of the science fiction genre elaborated this theme. Ernst Juenger, *The Glass Bees* (1957), is

an important example. This very interesting novel is the creation of a major German literary figure and has been translated into English. But we need not turn to German literature for examples, for both in terms of literary quality and quantity the English-speaking world enjoys a commanding lead. The 1950's and '60's gave rise to a series of novels which explore the destructive impact of science and technology on hypothetical future societies. Kurt Vonnegut, Jr.'s *Player Piano* (1952), C. M. Kornbluth's *The Space Merchants* (1952), Ray Bradbury's *Fahrenheit 451* (1954), Isaac Asimov's *The Caves of Steel* (1954), James Blish's *A Case of Conscience* (1958), Frederick Pohl's *Drunkard's Walk* (1960) and Robert Sheckley's *The Status Civilization* (1960) are only the outstanding examples of a large genre and one which continues to ramify into the present. It is important to note once more that the anti-scientific and anti-technological tendencies began to show up in science fiction in quantity a full decade before they became commonplaces in the intellectual climate of our times.

It is not my intention here to attack either the writers of science fiction or the genre itself. I simply believe that it is worth observing that the anti-scientific and anti-technological tendencies, the recourse to magic and charisma, are far more widespread in our culture than most of us imagine.

While the old left generally has remained conventionally utopian and science and technology oriented, the attitude of the new left to science and technology is quite another matter. The new left is pastoralist rather than utopian. The new left dreams of a return to the golden age; dreams of that unalienated and harmonious human existence before the fall. History and time are not to be overcome by science and technology but harmony achieved by the evolution of a new sensibility. Charles Reich's *The Greening of America* is, perhaps, the most significant elaboration of this new utopian dream but he has had more im-

portant and more sophisticated predecessors. Herbert Marcuse's *Eros and Civilization* projected such a shift in consciousness and the attendant abandonment of so-called economic and sexual repression. Mark R. Hillegas in his remarkably fine study, *The Future as Nightmare*¹⁵ has pointed out the interesting congruence between *Eros and Civilization* and Aldous Huxley's *Island*. *Island*, in fact, is a utopia characterized by an altered psychological state. It is a flight from and very nearly a rejection of technology and its solutions, whether through the yoga of sex, the extended family or the socially approved employment of a hallucinogen called *moksha*, all smack of the utopian thought of contemporary upper-middle-class and middle-class intellectuals. They are methods of escaping the trammels of historical reality and the human condition not through the solution of problems in the real world but rather through inducing a social and psychological dream state. Such utopias are conceivable only in a class for which the more rudimentary and elementary problems of scarcity, hunger, poverty, disease, and ignorance no longer have any importance. They are the dream world creations of a class which no longer directs its energies outward to the world but which has turned inward to the landscape of the psyche. An altered consciousness is the luxury of those who have a full stomach and an empty heart. This shift from science and technology to consciousness and drugs or other Dionysian and ecstatic life styles is the self-indulgent egocentricity of the idle and secure. But the great bulk of mankind have never in the past been idle or secure and they are not so now. Indeed, it is doubtful they could retain their humanity were this ever to become the case. Men

have maintained their precarious hold on this planet only through the most intense cunning and the increasing application of rationality. Scarcity, even in the most technologically advanced nation in the world, is a cruel reality not only for an unfortunate few but for substantial numbers in our population. Beyond the frontiers of the United States hundreds of millions are subject to the most abject poverty. Under such circumstances to call for the rejection of economic rationalism, the disciplines and self-restraint which make both civilized life and conquest of the anarchic possible and to call for the abandonment rather than the intensification of technological effort is a species of criminality.

The construction of utopia as it was conceived by the scientific positivists and the socialists is both impossible and undesirable. The anti-utopian novelists have given us an imaginative and no doubt accurate picture of what such a world would be like. That world, however, is not a utopian world at fault because men have dreamed too much but a world which is defective because men have dreamed too little. Those utopias of "little fat men" are utopias which take too little account of what men are, what they have been and what they might become. And while men will never become Gods it is a good thing to go to bed with a full stomach, to live in dignity, to contemplate mystery and to aspire for our children to those things we ourselves cannot reach. Science, reason and a respect for God's creation are the only forces which yield amelioration of our lot, let alone the construction of utopia. In this, as in so many other respects, the old left is more intelligent and sophisticated than the new left.

¹⁵Kingsley Amis, *New Maps of Hell. A Survey of Science Fiction* (Harcourt, Brace & World, Inc., New York, 1960).

²In this regard it is a matter of interest that Stanford's one time faculty member, currently unemployed and Venceremos guru, H. Bruce Franklin takes an intelligent interest in science fiction.

His book, *Future Perfect, American Science Fiction of the Nineteenth Century* (Oxford University Press, New York, 1966), while stylishly wordy and theoretically overdrawn, is not without merit.

³The relationship of science fiction to eschatology is clearly perceived though less clearly

articulated in David Ketterer's *New Worlds for Old, The Apocalyptic Imagination, Science Fiction, and American Literature* (Anchor Press, Doubleday, Garden City, 1974).

⁸It is interesting to note that fear of the machine and the menace of population growth are not problems for Soviet science fiction writers. See Cyril Bryner, "The Future in Soviet Science Fiction," in *Survey*, Vol. 18, No. 1, Winter, 1972, pp. 172-182, p. 176. On the other hand Soviet writers have expressed a fear of nationalism. Moreover, the future, whatever its formal projection may be whether the "futurism of sociological think tanks," utopianism or simply science fiction constitutes a special problem for Soviet ideologies. The very fact that the future must have in the Soviet Union a scientifically determined pattern is the source of enormous difficulty. See especially, *The Future of Society, A Critique of Modern Bourgeois Philosophical and Socio-Political Conceptions* (Progress Publishers, Moscow, 1973).

⁹Ralf Dahrendorf, "Out of Utopia: Toward a Reorientation of Sociological Analysis," in *The American Journal of Sociology*, LXIV, September 1968, pp. 115-127.

¹⁰George Kateb, *Utopia and Its Enemies* (The Free Press, Glencoe, 1963).

¹¹Mircea Eliade, *The Myth of the Eternal Re-*

turn or, Cosmos and History (Princeton University Press, Princeton, 1971).

¹²Harry Levin, *The Myth of the Golden Age in the Renaissance* (Oxford University Press, New York, 1972), p. 177.

¹³Hermann Bauer, *Kunst und Utopie. Studien über das Kunst- und Staatsdenken in der Renaissance* (Walter de Gruyter, Berlin, 1965). See also, Nell Eurich, *Science in Utopia, A Mighty Design* (Harvard University Press, Cambridge, Massachusetts, 1967).

¹⁴Cyril Bryner, "The Future in Soviet Science Fiction" in *Survey*, Vol. 18, No. 1 (82), Winter, 1972, pp. 172-182.

¹⁵George Orwell, *The Road to Wigan Pier* (London, 1937), p. 225.

¹⁶Walter Hirsch, "The Image of the Scientist in Science Fiction: A Content Analysis," in *American Journal of Sociology*, Vol. LXIII, No. 5, March, 1958, pp. 507-508.

¹⁷*Ibid.*, pp. 510-511.

¹⁸*Ibid.*, p. 509.

¹⁹Mark R. Hillegas, *The Future As Nightmare, H. G. Wells and the Anti-utopians* (Oxford University Press, New York, 1967). That such a flight was a perennial preoccupation of Aldous Huxley himself is apparent from his biography; Sybille Bedford, *Aldous Huxley, A Biography* (New York, 1974).