

UFOs, Science Fiction and the Postwar Utopia

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Whatever happened to the postwar utopia foretold by science popularizers, ad men and pundits during World War II? It was to be a future in which Americans were supposed to live much like those aliens from space encountered so often in science fiction whose technology and good sense have banished all that was unpleasant. At a time, as in the Great Depression, when Americans are debating federal definitions of adversity and arguing over what constitutes acceptable levels of economic misery, we might pause to remind ourselves that there was a moment when, in the midst of war, Americans looked to their immediate future for a life of leisure and ease.

The postwar era was often referred to as “in the Postwar,” or “when the Postwar comes,” as though it would be an even in itself, a historical era in its own right like the Renaissance. The adult generation of 1943 had known “the good old days” of prosperity, then the collapse of everything in the Depression, and now war. That generation looked forward to an era combining two ideas previously thought irreconcilable: unfettered economic activity and state interventionism to correct the cause of the business cycle. Undergirding the whole would be the incredible industrial power demonstrated in wartime.

What happened to that vision is of course that, as one observer put it, nothing came of it but the ball-point pen.¹ More precisely, the future came piecemeal and late with decidedly non-utopian side effects.

Concurrent with the postwar onslaught of doubt and disappointment and the perpetual threat of nuclear annihilation came the “Big Boom” in science fiction and its utopias and dystopias, its wondrous technology, and its amazing aliens. From the skies came “real” creatures from space in their flying saucers—beings who already lived in the long awaited Postwar.

The vision of a postwar utopia began to take shape in 1943 and developed quickly in a cataract of futuristic commercial advertising and in speculation in books, magazines and on radio. Triggered by a premature belief that the war was all but over, the speculation reached such proportions that the Advertising Council had to remind advertisers that the war was still on.² Counter-utopian articles occasionally appeared satirizing or qualifying some of the more rash prophesies. *The Saturday*

Evening Post poked fun at the idea of a two-hour workday, the family plane which Junior takes to Poland on a date, television and electric card shufflers.³ But even the skeptics were caught in the web, for the jokes were not negations of the postwar world but affirmations of its inevitability. The industrial designer Raymond Loewy complained in 1943 that “wishful thinking appears to have got out of hand at present.” His own designs, he pointed out, had often taken months to complete—twelve months in the case of his famous streamlined train. He cautioned consumers against expecting immediate enjoyment of the promised land. Far from denying, however, that miracle products were coming, he merely pointed out that they might arrive a year or so later than expected.⁴

Much of the fantasizing about the postwar period came from the advertising industry’s peculiar relationship with the federal government during the war. The Second World War was the first war in which popular understanding of events was shaped largely by commercial advertising employing essentially the same methods used to sell toothpaste. The chief propaganda agency of the government, the Office of War Information under the respected journalist Elmer Davis, was by 1943 dominated by men recruited from advertising firms. Advertising techniques thus replaced straight journalistic reporting of the war.⁵ Advertising men in O.W.I., working with advertising men in the business sector, their efforts coordinated through the advertising industry’s War Advertising Council, determined how the war was portrayed and how public support was elicited through print and radio.

When Treasury department polls revealed that there was more public enmity toward the Japanese than toward the Germans, it began using a deliberate appeal to hatred in order to sell war bonds.⁶

Heavy reliance on advertising to propagandize the war effort had the effect of trivializing its aims. When it was learned that people bought bonds in the hope of aiding family members who were in the military or as an investment for their financial future and not out of a deep concern for proclaimed war goals, bond drives altered accordingly.⁷ When the public was told to buy bonds for the good life after the war, the clear implication was that America was fighting to preserve or to enhance the material life of its citizens.

The Internal Revenue Service granted write-offs for advertising costs, and in the first two years of the war advertising increased by sixty-two percent.⁸ In return, advertisers donated space to help promote the sale of bonds, the use of V-mail, food conservation, and other governmental concerns. In 1943, for example, advertisers conducted sixty-two such campaigns.⁹ With huge wartime profits, with taxpayer-subsidized advertising budgets, and with few products to sell in the civilian markets,

businesses lavished fortunes on promotion of their corporate images and on future or imaginary products.

During the early months of the war, advertisers seldom mentioned the war in their copy, and many who did used the occasion to brag about their contributions to the war effort. Soon, however, the war took over as background and primary theme in most advertisements by the big companies who were the major war contractors. Brag advertising was discouraged by the War Advertising Council, but examples flourished anyway. A manufacturer of air conditioners claimed that the destruction of Japanese ships by American submarines was made possible by air conditioners because some parts for the submarines' periscopes were produced in air conditioned shops.¹⁰ Consumers who had no interest in owning a P-51 Mustang fighter plane or a Sherman tank were treated to large, full-color spreads praising the qualities of these weapons. When the Truman Committee criticized Curtiss-Wright for production inefficiency because it had not produced a single Helldiver plane, the company, never a big advertiser before the war, spent \$12,000 to advertise its plane and counter the bad publicity.¹¹ To remind car owners that Oldsmobile was in the thick of the fight, the company's ads proclaimed that its cannon was "Putting the kick in the Mustang."¹²

Increasingly after 1943, large corporations turned to the reconversion theme in dual advertisements: one section of the display showing their war product, the other showing their postwar product, sometimes covered like statues before the unveiling, awaiting delivery to happy civilians. By 1944 a survey indicated that the washing machine came first on the public's list of most desired goods. Indeed the first eleven items were home appliances.¹³ Worried by possible losses in cancelled war contracts, anxious about recapturing their place in the postwar market, many businesses based their entire wartime advertising campaigns on the reconversion theme.

The government's policy of reliance on advertising agencies to carry the domestic war message offered business a chance "to get out of the doghouse" after the massive business failures of the 1930s.¹⁴ Numerous ads praised pre-Depression free enterprise such as the Nash Kelvinator campaign "Don't Change Anything," meaning don't change anything prior to 1929.¹⁵ Most war contractors portrayed themselves as selfless patriots winning the war with prodigious output, and they promised full employment and dazzling new products after the war. "Look closely," said Alcoa in a 1942 advertisement, "and you can see a million peacetime jobs in the making." It went on coyly, "We wish we could name the great industries who are already working with us on starting future plans they have in mind."¹⁶ These plans rested upon advances in transportation, plastics, electronics and chemicals.

The typical householder of the postwar world would live far from the city and would be carried about in his own plane or helicopter. He might drive part way home in city traffic and upon reaching the nearest airstrip, convert his aerocar into a plane by making a few simple adjustments. Traveling by helicopter, he would simply land on roofs or backyards. Enormous cargo and passenger planes, perhaps flying wings with no cigar shaped fuselages of dead weight, would revolutionize commercial air transportation. By hauling gliders behind them, planes could become great sky trains. The old fashioned locomotive could be powered by jet turbines as could trucks and automobiles. All vehicles could be fueled by tiny atomic cells no bigger than a cigarette package and lasting almost forever. A Firestone ad asked, "What's in Store for 44—in the Wonderful World of Tomorrow" and showed a New Year's baby standing like a carnival barker in front of a cornucopia as tires rolled out along with futuristically designed cars, houses and helicopters, all made with velon, "the magic plastic." In the lower corner of the display, warplanes and soldiers carried on the war on a greatly diminished scale.¹⁷ Goodyear promised moving rubber sidewalks. Seagrams showed peacetime submarines equipped with helicopter rotors engaged in the salvage business. There were amphibious cars traveling sometimes without human guidance at speeds of one hundred miles per hour, slumless cities, prefabricated houses mass-produced and costing no more than a low-priced car. *Better Homes and Gardens* promised dehydrated milk in a cube, eggs to last a month, non-spoiling cream and bread, cities without smog, clothes made from milkweed and infra-red cooking in seconds.¹⁹ There would be shopping by television; personal atomic generators wired to clothing for heating and cooling; plastic airplanes and cars; facsimile newspapers coming out of television sets; an end to the common cold; vermin-free agriculture; streamlined, standardized kitchens with everything molded into place; a world where all corners would be rounded and all lines would flow. Great cities would ooze smoothly like Dali's watch.

Clearly many of the specifics of the postwar paradise were borrowed from the military, such as DDT, dehydrated field rations, synthetic rubber and sulfa. The craze for streamlining everything from cars to lawnmowers derived from the rounded designs used to achieve higher speeds in military aircraft.

It was in air transportation that imaginations were most active. Airframe manufacturers, their output swollen by war contracts, feared a relapse to ten percent of their wartime business in the postwar world unless private aircraft sales could be raised dramatically.²⁰ A survey of the six percent of the population in 1944 who earned enough to buy a postwar plane (seventy-five dollars per week) showed that almost forty-

four percent intended to buy one.²¹ Another survey in 1946 indicated that fifty percent of those aged twenty-one to twenty-nine said they would like to learn to fly.²² These opinion figures show the probable result of years of advertising the postwar family aircraft as though it were a certainty. Cessna made plans for its “family car of the air,” the interior reassuringly similar to that of prewar cars. Piper ran ads showing a happy family flying over an inviting lake in summer: “Let’s Go Down for a Swim.: (“Send for a free booklet ‘What Your Town Needs for the Coming Air Age’.”)²³ Stewart-Warner, makers of instrument panels for the military, pictured Mom, aged about sixty-five, at the controls of the family plane while Dad sleeps. “Just keep her headed north, dear—and wake me up when home’s in sight.”²⁴ A Cannon Electric ad pictured a drunk flying home automatically in his helicopter, riding on a “magnetic beam.”²⁵ One writer described a hypothetical air trip of the postwar era—a flight to Pittsburgh navigated indolently by music from KDKA.²⁶ *House and Garden* advised readers to learn all about airfields, to get one for their town and to consider home landing strips when drafting house plans for the future.²⁷

In the same year that Igor Sikorsky sold his first helicopter to the army (1943) he announced plans for a postwar family machine with speeds up to one hundred twenty-five miles per hour.²⁸ The Civil Aeronautics Board soon had received forty-seven applications for commercial helicopter routes, one from Greyhound which had already asked United Aircraft for a fourteen-passenger air bus.²⁹ The C.A.B. asked Congress in 1945 for three thousand airports, mostly small ones, in anticipation of the new era. There was even talk of a new dirigible age, and Goodyear advertised a “Luxury Liner of the Future.”³⁰

Improvements in transportation have always been fundamental to the health of the republic in American thinking. In a nation of continental proportions, physical movement has seemed closely tied to social relationships. When Americans in 1943 talked of family aircraft, they were expressing perhaps a desire for the same shifts in social relationships which the mass-produced automobile had assured. Imagine a nation of clerks, assembly line workers, teenagers and salesmen all in the air riding their magnetic beams, the skies open to all who could afford the modest price of the vehicle just as the roadways were open to Fords and Cadillacs alike.

The postwar period of the late 1940s and 1950s is generally thought of as a time of growing prosperity and personal satisfaction, of great migrations to the middle class life of suburbia, and of a general optimistic consensus, as though ordinary people were unaware of the unique crisis which confronted the era. Instead of the tranquility of outlook such

a stereotype implies, popular culture of the period reveals themes of despair and flight to other-worldly alternatives.

Fattened by years of overtime pay, charged with pent-up demand for goods, expecting prewar working hours at wartime wages, Americans waited for the arrival of the consumer's heaven.

With splendid irony the postwar era was ushered in by the paramount marvel of the war: the atomic bomb. On the threshold of the new era, Americans had to weave into their dreams images of a mushroom cloud. Science had been the underpinning of the postwar utopia, yet its most impressive step was toward the destruction of civilization. Whereas sixty-three percent of the public foresaw planes flying on atomic power, by the end of the century, eighty-three percent in 1945 believed there was a real danger that in another war most city dwellers in the world would die.³¹ Within two months after the atomic bombing of Japan, large minorities of Americans wished that the bomb had never been invented and believed that atomic testing alone could destroy the world.³²

Those bits of the postwar paradise that eventually materialized came unaccompanied by any sense of a new age dawning. Instead, each dose of technology brought its own antidote to happiness. For superhighways there was urban sprawl and poisoned air. For jumbo planes there were jumbo crashes. For DDT there were to be bigger and better bugs. Cybernetics brought fear of the robotization of people as machines were humanized. But there was more to the dream than hardware and chemicals.

The postwar vision of utopia was perhaps the last in a long American visionary tradition which included the Puritan's City on a Hill, the agrarian empire of the nineteenth century, and the glittering vision of the 1880s fashioned from steel, steam and railroads. The significant element in this history of utopian thinking was not always a dependence on machines, but rather a pervasive sense of mission which required power, freedom to act, and relentless destruction of opposing forces, whether to dominate a continent or to establish an industrial paradise.

And what of global leadership? That there would be no retreat from the obligations and opportunities which the war made possible was made clear by polls which showed that support for a postwar international body had grown from fifty-two percent in 1937 to eighty-one percent in 1945.³³ A sense of mission crowded in behind the war consciousness. Europe would be ruined by the war and Americans would no longer be safe behind ocean barriers. The war produced circumstances in which the United States would have to create on a world scale the harmony of interests which alone could make a utopian future possible at home.

The national spirit engendered during the war, which Geoffrey Perrett has described as “the supreme collective social experience in modern American history” would not be preserved in peacetime.³⁴ Emerging from the war almost in the situation of the lone survivor, the United States was quickly forced to adopt containment of its perceived enemies as the central concept of its foreign policy—one seeking merely to deny success to the ambitions of another. No other major policy position in American history has been so static and negative, certainly not the official war aims of the late conflict. One could present much of American history since 1945 as the anguish of adjustment to narrowed choices.

It must be supposed that these dashed hopes for the future sought refuge elsewhere, perhaps in space. The popular culture of the first postwar decade reveals a trend toward anguished thoughts of a dismal future or of no future at all. “Take me to your leader,” the visiting Martian commands. The message he has to deliver is: the earth is doomed unless

Some interplanetary visitors were blamed for contemporary problems as Glen Johnson shows in his discussion of the 1956 film *The Body Snatchers*. Amidst the spy scares—tales of brain washing, fears of declining morals, and a generalized notion that “subversion” was behind most trouble—the invading aliens arrive in a feckless California town to take over the unresisting bodies of the townspeople. Aliens in this story become, Johnson thinks, the scapegoats for the disquieting changes in the Fifties.³⁵ Similarly in the 1951 film *The Thing* the world is saved—but who knows for how long—from an invading sentient vegetable humanoid who breeds like potatoes.³⁶ Some aliens traveling to earth in their space ships come to devour the future, others to save it, like the elegant alien in another 1951 film, *The Day the Earth Stood Still*, who forces earthmen to behave themselves for the good of the universe by interrupting the magnetic field.³⁷ In either case, space and its inhabitant civilizations provide new variables in the continuous enactment of every conceivable future.

Unidentified flying objects in their modern form came into being after a sighting by a civilian pilot in 1947 and have generally been attributed by believers to extraterrestrial beings ever since. Wartime UFOs, called “foo fighters,” were attributed at first by both Allied and German aviators to each other. That “foo fighters” were from space was never considered.³⁸ What attraction there was to the extraterrestrial explanation after 1947 is not clear. It may not be coincidental that the first great period of sightings came in the first years of postwar pessimism in which Americans failed either to bring about the terrestrial paradise of the kitchen and highway or to harmonize relations among the states of the earth.

The mere presence of aliens in the skies testifies to their high level of technology. Their inoffensive curiosity implies peaceful intent. Therefore, aliens possessed the means to offer a beneficent world—harmonious and triumphant without war. They had technique and order, the two pillars of the postwar utopia. Aliens were Space Americans come to carry out the mission Earth Americans could not consummate. Much as Carl Jung conjectured that alien space-conquering voyages were projections of our own readiness on the brink of space travel, aliens in UFOs can be seen as projections of our thwarted ambitions for a transcendent scientific order.³⁹

As the UFO phenomenon gathered momentum, the readership and output of science fiction was beginning to expand rapidly. “The Big Boom” in its popularity peaked in the early 1950s when fifty to sixty books were published each year in addition to numerous pulp magazines. No longer relegated to the pulps, leading science fiction writers were placing their work in slick magazines like *Collier’s* and *The Saturday Evening Post*. Science fiction’s earlier preoccupation with rockets and ray guns began shifting just before the war into fields of broader social concern.⁴⁰ By the end of the war it had developed into a perfect literary medium for social commentary. It was ignored as trivial by the keepers of the nation’s conscience, and its messages were camouflaged by its own exotica.

Science fiction was curiously unconnected to the science of the day. William Bainbridge notes that science fiction became “ghettoized—estranged—from rocket development in the 1930s and remained irrelevant to the space program through the 1970s.⁴¹ Likewise, Judith Merrill denies that the atomic age had much to do with science fiction’s popularity but finds more of a connection between the rise of McCarthyism and the genre’s growth in the 1950s. Science fiction was, she thinks, “the only vehicle of political dissent.”⁴²

In the immediate postwar period, science fiction was not really fiction about science but fiction about society confronting science. Two of the most common science fiction plots of the period are about societies seeking or enjoying life in something reminiscent of the postwar utopian vision and descriptions of the process by which science and technology in the hands of rational men assist at the birth of monstrous perversions of that utopia.

Science fiction in the postwar years was a far cry from the Bug-Eyed Monster romances of the late 1920s and 1930s. The themes encountered in stories written in the late 1940s and 1950s were predominantly criticism of conformity, cold war hysteria and post-third world war holocausts.⁴³

Judith Merrill sets the background for "That Only a Mother" in the postwar utopia of gadgets: "On the way through the kitchenette, she pressed the button that would start breakfast cooking ... and tore the paper out of the facsimile machine."⁴⁴ Outside there is some sort of a war going on; radiation from bombs long exploded deforms fetuses and infanticide is common.

In John MacDonald's "Spectator Sport," a time traveler finds that the disappointment with the postwar reality of the 1950s had been extrapolated in the year 2350 to the level of institutionalized escapism. First lobotomized, he is awarded the most coveted prize: installation in front of an enormous television screen. His motor functions disconnected, his eyelids removed, his hands and feet flayed open and glued to sensor surfaces, he is tuned to seven years of cowboy movies.⁴⁵

Much of this social criticism was presented in dystopian form. In one collection of sf stories from the 1950s, thirteen out of twenty-one stories were anti-system dystopias. Sixteen of the twenty-one were clearly negative or pessimistic in outlook. One was optimistic but set in a post-holocaust future.⁴⁶ Utopian stories like Isaac Asimov's *I, Robot* often implied nightmarish futures unless drastic steps are taken.⁴⁷ Although Asimov is outwardly optimistic, it is because he has seen to it that in his future robots do not serve but control man, safeguarding him against his own inevitable folly.

In dystopias such as Kurt Vonnegut's *Player Piano*, the same attempt to mechanize society has resulted in mass dehumanization from dull work, in the spawning of new elites who manage the great machines and in rigid controls on human behavior.⁴⁸ Both novels picture man as criminally diseased: one liberates humanity by imprisoning man in a benevolent, robotic environment while the other sees the humane and the insanely self-destructive as inseparable. In essence, many science fiction utopias differ little from dystopias, for in both we find a world either heading toward or recovering from disaster caused by an overdose of reason, science and technology.

The Bomb undermined confidence in science. The cold war and its domestic tensions eroded confidence in America's ability to control the peace. The first great blow to the postwar international mission—the realization that Americans could not will the outcome in the struggle for central Europe—was mirrored in new public attitudes: large majorities concluded that the Soviet Union wanted world domination. Most Americans believed that the United States had to maintain large standing military systems. Confidence that individuals have power to alter any of the postwar's distressing trends all but disappeared.⁴⁹ That "supreme collective experience" of the war years wilted in the hunt for the domestic

spies and traitors—the disloyal Americans who were thought responsible for subverting the postwar utopia.

“For the first time in history,” Asimov has said, “the future is a complete puzzle”⁵⁰ What happens to a future-oriented society when it begins to consider the end of the future? The answer, suggested in the themes of sf and in the “reality” of visitors from space, is that such a society invents new futures.

Notes

- ¹“What Happened to the Dreamworld,” *Fortune*, Feb.1947, p. 91.
- ²Ray Rubicam, “Advertising,” in *While You Were Gone*, ed. Jack Goodman (New York: Simon & Schuster, 1946), p. 444.
- ³Alan Dunn, “Utopia—1955,” *Saturday Evening Post*, Dec. 30, 1944, pp. 36-37.
- ⁴Raymond Loewy, “Looking Backward to the Future,” *Collier's*, Nov. 13, 1943, p. 13.
- ⁵John Morton Blum, *I Was For Victory* (New York: Harcourt, Brace, Jovanovich, 1976), pp. 38-39.
- ⁶Blum, p. 20.
- ⁷Blum, p. 20.
- ⁸Madison Avenue, “Advertising in Wartime,” *New Republic*, Feb. 21, 1944, p. 232.
- ⁹Rubicam, p. 427.
- ¹⁰Rubicam, p. 430.
- ¹¹Madison Avenue, p. 234.
- ¹²Advertisement, *The Saturday Evening Post*, July 3, 1943, p. 37.
- ¹³Blum, p. 100.
- ¹⁴Madison Avenue, pp. 234-235.
- ¹⁵Madison Avenue, p. 235.
- ¹⁶Advertisement, *Time*, Feb. 23, 1942, p. 43.
- ¹⁷Advertisement, *Newsweek*, Jan. 17, 1944, pp. 48-49.
- ¹⁸“Planning Tomorrow’s Home,” *House and Garden*, Sept. 1943, p. 19.
- ¹⁹*Better Homes and Gardens*, Oct. 1943, p. 22-23.
- ²⁰“Postwar Horizons,” *Newsweek*, Oct. 25, 1943, p. 66.
- ²¹John Foster, “The Personal Plane Sales Target,” *Aviation*, Jan. 1944, p. 116.
- ²²Hadley Cantril, ed., *Public Opinion 1935-1946* (Princeton: Princeton University Press, 1951), p. 12.
- ²³Advertisement, *Aviation*, Aug. 1944, p. 7.
- ²⁴Advertisement, *Newsweek*, July, 1944, p. 317.
- ²⁵Advertisement, *Newsweek*, July 10, 1944, p. 6.
- ²⁶Darrell Huff, “Your Family Plane of Tomorrow,” *Better Homes and Gardens*, Feb. 1945, pp. 96-106.
- ²⁷“Plane Talk to Property Owners,” *House and Garden*, Feb.1945, pp. 60-61; “Five Acres and a Plane,” *House and Garden*, Feb.1945, pp. 42-45.
- ²⁸*Newsweek*, March 8, 1943, pp. 58-61.

²⁹"Winged Hearse," *Newsweek*, Oct. 18, 1943, p. 75; Boyden Sparkes, "Revolution in the Air," *The Saturday Evening Post*, Sept. 25, 1943, p. 28.

³⁰Advertisement, *The Saturday Evening Post*, Sept. 21, 1943, p. 72.

³¹John Fenton, *In Your Opinion*, (Boston: Little, Brown, 1960), p. 105; Cantril, p. 22.

³²Fenton, p. 37; Cantril, p. 25.

³³Harold Isaacs, "Report on Opinion," *Newsweek*, Aug. 4, 1947, p. 32.

³⁴Geoffrey Perrett, *Days of Sadness, Years of Triumph* (New York: Coward, McCann and Geoghegan, 1973), p. 433.

³⁵Glen M. Johnson, "'We'd Fight We Had To,' *The Body Snatchers* as Novel and Film," *Journal of Popular Culture* 13 (1979), 10.

³⁶*The Thing*, RKO/Winchester, 1951.

³⁷*The Day the Earth Stood Still*, Fox, 1951.

³⁸Norman J. Briazack and Simon Mennick, *The UFO Guidebook* (Secaucus, N.J.: Citadel, 1978), p. 8.

³⁹Carl Jung, *Flying Saucers* (New York: Harcourt, Brace, 1958), p. 14.

⁴⁰John W. Campbell, "The Place of Science Fiction," in *Modern Science Fiction*, ed. Reginald Bretnor (New York: Coward-McCann), p. 12.

⁴¹William Sims Bainbridge, *The Spaceflight Revolution* (New York: Wiley, 1976), p. 199.

⁴²Judith Merrill, "What Do You Mean—Science Fiction?: *Extrapolation*, 8 (Dec. 1966), 2.

⁴³Martin Harry Greenberg and Joseph Olander, eds., *Science Fiction of the Fifties*, (New York: Avon, 1979), pp. xviii-xx.

⁴⁴Judith Merrill, "That Only a Mother," in *Science Fiction of the Forties*, eds., Frederick Pohl, Martin Harry Greenberg and Joseph Olander (New York: Avon, 1978), p. 322.

⁴⁵John D. MacDonald, "Spectator Sport," in Greenberg and Olander, p. 1-8.

⁴⁶Greenberg and Olander.

⁴⁷Isaac Asimov, *I, Robot* (New York: Doubleday, 1950).

⁴⁸Kurt Vonnegut, Jr. *Piano Player* (New York: Dell, 1952).

⁴⁹Isaacs, pp. 32-33.

⁵⁰Isaac Asimov, "Social Science Fiction," in Bretnor, p. 188.

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