

MIDCONTINENT PERSPECTIVES

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SCIENCE FICTION: ITS PAST, PRESENT, AND FUTURE

It's a great pleasure to be here. Growing up in Kansas City as I did, I never dreamed that I would one day stand here addressing Kansas City's leaders ... certainly not about science fiction, which, when I first became acquainted with it, was sort of a subterranean literature. It came to me originally in the form of books by Edgar Rice Burroughs – by the way, you couldn't get them at the public library because they were considered to be not respectable enough to be bought and placed there – and then in the form of garish paperbacks or pulp magazines with names like *Doc Savage*, *Operator # Five*, *The Shadow*, and *The Phantom*. Finally, I was able to get the real science fiction magazines down at a little place on 12th Street, a used magazine store. Some of you who have shady pasts like me may also remember the place. It was called “Andy's,” and we used to take down stacks of these category pulp magazines and trade them two for one. It was there that I found these great, marvelous stacks of *Amazing Stories*, *Astounding Stories*, *Wonder Stories*. Andy – I'm sure it was Andy – Andy sat at the front of his store with a green eye shade and kept muttering because we didn't buy these magazines for a nickel apiece. Instead, we simply traded our old ones. He said he couldn't live on old paper. That was true, I'm sure, because I'm certain he's not living now. But I wish we'd bought all those old magazines because today you could sell them for \$25 or \$50 or \$100 apiece, which would have made them a better investment than gold or diamonds.

Before we can talk about science fiction, however, we need to establish what we're talking about: science fiction, or as I will refer to it mostly from now on, SF, which is the approved abbreviation for this odd genre, not sci-fi. Sci-fi is mostly what the movie magazines, *Variety* and so forth, call bad science fiction movies. If you use the term sci-fi, that means you're not really informed about the genre. It's SF or nothing.

SF, in any case, has had many definitions, none of them entirely satisfactory. Even the name, “science fiction,” has detractors. Perhaps I can justify the appropriateness of that particular name, since it is the one that seems to stick better than any other. We might call science fiction the fictional exploration of the unknown. The science part of the name refers to the nature of the exploration. Science – if you look at its etymological root – means knowledge. In a historical sense, there have been many ways that humans have known things, for example, transcendence, mysticism, revelation, psychic powers of all kinds, drugs, and prayer. But science is a strategy for knowing. It was invented by Western civilization beginning about the time of the Renaissance, and it accelerated during the Industrial Revolution and the Age of Enlightenment. The science strategy involves rational investigation and the development of theories supported

by reproducible results. This is the strategy that is incorporated in science fiction; the other strategies are excluded.

Before we go on, we need a definition a bit more precise than this. The one I've been using in my science fiction classes lately is, "the literature of discontinuity." Traditional fiction is the fiction that you read when you don't read science fiction. Some SF readers call it mundane fiction. Traditional fiction is the literature of continuity. That is, it deals with people we know, in the world we are familiar with, operating by rules we understand. A distinguished writer and critic of science fiction, Algis Budrys, tells a story about the second person born on Earth. As this person rises to look at the wonders lying all about him, he feels a tap on his shoulder, and a voice that comes from the first person on Earth says, "Let me just acquaint you with my rules." Now the third person on Earth gets a similar tap on the shoulder, but the voice says, "Let me acquaint you with the rules." Traditional fiction is concerned with the attempt by the characters to discover what the rules are, and the story describes how they learn about them and how they live with the rules. SF, on the other hand, begins with the assumption that the rules may not make sense, are incomplete, or are inappropriate for this new situation. SF is about new situations, which is why I call it the literature of discontinuity.

Fantasy, however, also is a literature of discontinuity. Although science fiction and fantasy have some basic similarities, we need to distinguish between them because we read them differently.

Fantasy presents its readers with a world in which one of the rules has been altered arbitrarily. The writer of fantasy says that little girls can fall down a rabbit hole into Wonderland, or that some people can transform themselves into bats and drink blood and live forever, or that a fairy world where magic works lies just next door or all around us unperceived. Just discard your skepticism for a bit, and let the fantasy weave the spell around a world where our wishes or our fears can come true.

The premise of science fiction is not the same. It asks the reader only to assume that the world has been changed by an unusual, but natural, event. Readers must suspend their disbelief, to the extent of granting the writer that plausible assumption.

I further distinguish between the literatures of discontinuity by calling fantasy the literature of difference and science fiction the literature of change.

Fantasy has been around since the beginnings of storytelling; science fiction only since the early to mid-19th century. That is because humanity has believed ever since its beginnings in the possibility of unseen powers and mysterious forces, but it has believed in the existence of man-made change only since the Industrial and Scientific Revolutions. Up to that point, the major changes humanity had experienced were the changes of the seasons and the disasters of drought, flood, disease, revolution, and war. Wind power and water power brought a kind of mini-Industrial Revolution to western Europe as early as the 12th and 13th centuries. But it was aborted by years of bad weather, the Black Plague, and the Hundred Years War.

Chemical power, the burning of coal to produce steam, and the harnessing of that steam to perform useful work, launched a process that has not ended yet. Scientific discovery and technological application have combined to produce continuing change, not only in the way people live, but also in the way they think about themselves and their relationship to the universe. In the Middle Ages, for instance, people – whatever their station – considered

themselves a part of creation. To understand it, they had only to consult Revelation or its interpreters. Once they discovered the Divine plan, their responsibility was to accommodate themselves to it.

In the age of science, people consider themselves a part of nature, true, but the part capable of understanding all the rest. That, then, becomes their responsibility: to understand the universe and their place in it. To understand it, they must discover how it works and develop theories to explain why it works in that fashion and not in some other. In comparison with the universe, people have become minuscule, but the power to understand gives them the power to go anywhere and to do anything. In a story by H. G. Wells published in 1898 called "The Star," an astronomer discovers that a planetary body has come into the solar system from outer space, has swung past some of the other planets, and in the process nearly destroyed them, and is likely, indeed, to destroy the Earth. He goes to the window and looks out at this body looming in the sky, looking ever brighter all the time. He has calculated its orbit, and he says to that star in the sky, "You can destroy me, but I can hold you and all the universe in this tiny brain. I would not change it, even so."

That was one of the beginnings of the science fiction attitude that I have described so far. The realization that life was changing; that cities were growing as people walked off the farms and into the factories; that distances were shrinking as railroad engines and steamships took the place of wagons and sailing craft; that scientists were unveiling the mysteries of the human body, the movements of the planets and the stars, new forms of energy, and the properties of matter in various combinations, all these led certain writers in the 19th century to consider how change had affected humanity in the past and might be a continuing force in human affairs. Those speculations, when turned into stories, created what we have since come to call science fiction, the literature of change.

Some scholars consider Mary Shelley's 1818 novel Frankenstein the first science fiction novel. Others believe that Edgar Allan Poe and Nathaniel Hawthorne were writing stories in this tradition in the 1830s and 1840s. Certainly, these were the first attempts to cope with the idea of human change, but the writers and their immediate successors did not establish the new genre. That was left for the French master, Jules Verne, whose first science fiction voyage extraordinaire, Journey to the Center of the Earth, was published in 1864, and whose novels of technological improvement and fabulous journeys would transport his readers twice a year until his death in 1905.

But a decade before Verne's death, H. G. Wells began publishing what he called scientific romances, beginning with a series of stories in 1894 and continuing with a succession of brilliant novels, from The Time Machine in 1895 to The First Men on the Moon in 1901. Between those two dates were published The War of the Worlds, The Invisible Man, The Island of Dr. Moreau, and When the Sleeper Wakes. To the Vernian tradition of exploration and adventure was added the Wellsian tradition of ideas and social comment. They continue as the twin sources of almost all science fiction since.

Society's increasing dependence upon machines demanded new and better educated workers, and all across the industrialized world, primary education became compulsory for the first time, a movement that swept across the United States immediately after the Civil War. Secondary education, which up to that time had been almost nonexistent, became a growing option.

That educational revolution, in turn, created a new class of readers, and new magazines were published to occupy the increasing leisure hours of workers and their sons; women's minds were considered too fragile for such reading. First came the dime novels, then boys' magazines, then the new pulp magazines that started in 1896 with the creation of a magazine called *Argosy*. It began as a boys' magazine called *Golden Argosy* and in 1896 was turned into the first of the adult pulp magazines. It advertised itself as "192 pages of fiction for a dime," and it launched a new era in publishing of this kind.

Argosy and its companions and competitors published adventure stories of all kinds, but readers soon began expressing in the readers' columns a preference for one variety of story over another. In 1915, the category pulp magazines got going with *Detective Story Monthly* and was followed four years later by *Western Story Magazine*. *Love Stories* came along in 1921.

The twin traditions of Verne and Wells merged in 1926 with the creation of the first science fiction magazine, *Amazing Stories*. Publisher Hugo Gernsback was an émigré from Luxembourg fascinated by invention. He was an inventor himself, and he was a publisher of such popular science magazines as *Electrical Experimenter* and *Science and Invention*. *Electrical Experimenter* was sold to the magazine that eventually became *Popular Mechanics*. He said in his first SF magazine, *Amazing Stories*, that he was going to publish what he called "scientifiction," scientific and fiction stuck together to make what Lewis Carroll called a portmanteau word. In this magazine he reprinted most of Verne and Wells and a good deal of Edgar Allan Poe as well.

In 1929 Gernsback lost control of *Amazing Stories* and founded several other magazines that eventually were combined into a magazine called *Wonder Stories*. In the first of these, *Science Wonder Stories*, he coined the term "science fiction." It has stuck better than any of the alternatives that have been suggested, such as "speculative fiction" or "science fantasy." Then in 1930 another competitor sprang up, *Astounding Stories of Super Science*. It was published by one of the chains of pulp magazines that were common at that time. The Clayton chain was publishing 13 different magazines, adventure stories of all kinds, western stories, detective stories, and so forth. They were printing the covers on a sheet that could print 16 covers. Three spaces were going to waste, so they decided to publish a science fiction magazine and get the cover virtually for free. Such were the reasons that controlled the destinies of magazines, of authors, and of genres.

The Clayton chain failed in 1933. Some of you may remember that was the third year of the Depression. The magazine *Astounding* was taken over by another chain, Street and Smith, and in 1937 came under the editorship of a writer of science fiction named John W. Campbell. True to his popular science background, Gernsback believed that science fiction should promote understanding of science and technology through fiction, that SF should be a sort of candy-coating for a pill of information. It actually has served some of that function, and a lot of people trace their interest in science to their early reading of science fiction magazines, among them people like Carl Sagan and many of the people who later sprinkled the NASA organization. As a matter of fact, back in the early days of *Amazing Stories*, one reader wrote in to suggest that the scientific information in the story should be printed in boldface so that the reader could identify it more easily and thus improve his education.

On the other hand, the original *Astounding Stories* editor, Harry Bates, wanted a pulp adventure story set against a pseudoscientific background instead of the customary battlefield or

exotic far-off land. John Campbell, however, asked for well-written stories placed in science-important settings, when he became editor of *Astounding Stories*, which he renamed *Astounding Science Fiction* and, eventually, *Analog*. He wanted a story, he said, that could be published in a magazine in the 25th century.

In these magazines of the 1920s and the 1930s, the readers and writers of science fiction interacted to develop ideas and conventions and images. Isolated in large part from the rest of the literature, the genre went through an intense growth, nurtured in what has been called the science fiction ghetto, creating a fandom. It was the only literature at that time which had its own fandom, bred new writers out of fans, and built stories on top of stories criticizing the early stories or pointing out their inadequacies or adopting some of their successes.

Out of this hothouse atmosphere sprang such authors as Isaac Asimov, Robert A. Heinlein, Theodore Sturgeon, A.E. van Vogt, and what has come to be called the Golden Age of science fiction. World War II changed science fiction as well. Not only was it the first major conflict whose course was absolutely determined by science and technology, it validated those persistent and often ridiculed science fiction symbols, the rocket ship and the atomic bomb. As a consequence, in the late 1940s and early 1950s, SF proliferated in new magazines, in anthologies, and in hardcover and softcover novels. One of those magazines, *The Magazine of Science Fiction and Fantasy*, emphasized literary quality. Another, *Galaxy*, emphasized sophisticated narrative, including satire, and focused on social response to change. Later, in the 1960s, the English magazine, *New Worlds*, would produce an avant-garde fiction utilizing the stylistic innovations of the mainstream, focusing on the helpless victims of change, and sometimes displaying attitudes that were anti-science, and even anti-science fiction.

All of these traditions still are displayed in science fiction. All have been integrated into the genre, even the most recent, which is called “cyberpunk.” It has both the computer as its central motif and punk as its attitude toward the world. Cyberpunk looks toward a gritty near-future world of vast new powers produced by drugs, computers, and international corporations from the perspective of a rebellious underclass struggling to survive.

Today, the walls of the science fiction “ghetto” have fallen. The magazines that once encompassed the entire territory have lost much of their influence. Even though they still exist – unlike the other pulp magazines that I was talking about, which now have gone to the great publishing pulp mill in the sky – the science fiction book has become more important. Immediately after World War II, a handful of books was published each year. By the mid-1950s, the numbers published had climbed to about 100, and by the early 1970s, after a decline in the late 1950s and early 1960s, to a couple of hundred. By 1987 that total was over 1,600 science fiction and fantasy books published every year, a staggering number, particularly when I don’t have any in that list – you’d think they’d give me at least one.

By now, science fiction and fantasy is the leading genre of fiction; with the possible exception of the romance. One of every four or five books of fiction published every year is science fiction or fantasy. Eight of the ten most popular films of all time, based on the amount of money they’ve taken in, and 13 of the top 20 films of all time are science fiction or fantasy. And science fiction and fantasy books appear regularly on *The New York Times* best-seller list.

Incredible! What was once a minority literature, mostly consumed by the isolated adolescent male, has become a majority literature read occasionally by almost everybody ... well, at least almost everybody born since 1950, and intensely by a substantial body of both male and

female high school and college students. Why the readers should be young may not be a surprise. The young have more time for reading and more appetite for adventure, even for romantic escapes. But even more important may be the fact that they have not yet clearly established for themselves the nature of the consensus that makes up the adult reality.

They have not yet accepted it as the only possible consensus nor have they completed the series of compromises that integrates the self with the community. In other words, they represent the state of mind with which readers must approach science fiction if they're going to read it with enjoyment.

A few readers carry this skeptical questioning attitude into adulthood and remain science fiction readers throughout their lives. A number, many more, take it up for a while, particularly in high school and college, and then drop it and never return. But the numbers of the people who continue to read it seem to be growing continually, along with the baby boom generation. That is, the isolated adolescent boy has become the average adolescent. And some of the adolescents who grew up after science fiction reading became acceptable have kept their speculative trends of mind after most of their contemporaries have given them up. Even the science fiction writers are getting older. Isaac Asimov and Frederik Pohl are 68, Arthur C. Clarke is 70, and Jack Williamson and Robert A. Heinlein are 80, but, marvelously, they are still as productive as ever, so maybe there's something to be said for science fiction.

Asimov has identified a further and, perhaps more important, reason for the increasing readership of science fiction. We live, he has said, in a science fiction world. It is the world he was writing about in the 1930s and 1940s. It is a world of space shuttles, planetary probes, intercontinental ballistic missiles, nuclear power, supersonic air travel, robots, computers, postindustrial societies, and unrelenting change. It is a high-tech world created by scientific research. The losers of World War II have become the winners in the postwar technological competition. It is a world in which scientific breakthroughs from nuclear fusion, say, or room-temperature superconductivity will determine the future of the world, and the development of space habitats or extraterrestrial colonies may determine the future of the human species. In a science fiction world if you don't read science fiction, not only are you not with it, you may not be behaving rationally. Traditional fiction may concern itself with a variety of adjustments to things as they are, but it refuses – it must refuse if it is not to become science fiction – to incorporate in its stories one basic truth about the world. Things as they are are not things as they will be.

Science fiction, which long has been accused of being escapist literature, is the only fiction that is realistic. And any fiction that does not include in its basic description of the world that it is in the process of changing to something else must be fantasy. Perhaps we should be glad, then, that some people are reading science fiction. They are not simply indulging in wild flights of escapist adventure. There may be some of this in their science fiction reading, to be sure, but why not? Adolescence is the time for dreams of swashbuckling and derring-do.

But science fiction has a serious side. Even at its most adventurous, it involves an assumption of change and of adjustment to that change, and many of the changes to which science fiction characters must adjust are the changes that humanity must face today or tomorrow. When Isaac Asimov was a boy, he recalls, people criticized him for reading escapist literature. But he points out that what he was escaping into was pollution, overpopulation, war, plague, aliens, and worlds driven by science and technology. Some escape, he says.

Today we can see these problems and others looming ahead of us much more clearly, and we can deal with them much more realistically. If our young people are reading about them, they may be able to deal with them more rationally. Science fiction, as John Campbell once said, allows us to practice in a no-practice area, like jumping out of an airplane. Moreover, people who have grown up reading about conditions different from those in which they live, and about characters who have interacted with those conditions and coped with them, are less likely to feel helpless when the world changes around them. "Future shock," as Alvin Toffler wrote in his book with that title, "is the disease brought about by the premature arrival of the future." But for the science fiction reader, the future does not arrive soon enough. Science fiction, Toffler wrote, is the sovereign remedy for future shock, and he urged the teaching of science fiction courses in primary schools.

Finally, youngsters who read science fiction are learning in the most painless and, I suggest, therefore, the most effective way, that the future will be different. They are learning as the best universities try to teach them that there's no use mastering a body of skills or a body of knowledge and expecting it to last them a lifetime. Much more important is mastering the art of learning and the habit of flexibility. George Santayana once said that those who ignore history are destined to repeat it. We might paraphrase this observation to state that those who ignore the future are destined to be its victims. We cannot stop the future from happening, but sometimes we can choose among futures by understanding the consequences of our action or inaction through applying the extrapolative thinking that we like to think science fiction encourages. Also, we can make the future more palatable by building into ourselves the ability to adjust. That the future will be different means there is opportunity for improvement. If things are not as good as they could be, the possibility of change means that we can make them better. I'm not saying that science fiction will give us a future, only that it will give us glimpses of possible futures. A future could only be created when man-made change became a fact of everyday life, and it could only come to full flower in a world that is like today's.

The motto of the mystery writers of America is that crime does not pay enough. The science fiction writers of America had to come up with something similar, and Arthur C. Clarke suggested that they ought to take as their motto, "The Future Isn't What It Used To Be." If we think about it in as many ways as possible, however, including the speculative fiction that allows the author to show people coping with change, maybe we can make the future as good as the past, or even better. Thank you.

QUESTIONS AND ANSWERS

QUESTION: Could you comment on Isaac Asimov's book, Fantastic Voyage? Personally, I was disappointed in it.

ANSWER: Unfortunately, I have not yet read Fantastic Voyage, even though I have read his new unpublished book, which is called Prelude to Foundation, and will be out in May. But let me give you a slight background on Fantastic Voyage and maybe this might explain your reaction. The first Fantastic Voyage was a novelization of the screenplay of the movie. They came to Asimov and said they'd pay him money to do this. I don't know how much; probably not a lot. But that was when he had a hard time making a lot of money. He tells in his autobiography, for instance, that he was a very well-known author by the time he had been publishing for ten years. But he later calculated that over those ten years he'd been publishing, he

figured he'd made a total of \$8,000, which meant that he was averaging \$800 a year! He earned a Ph.D. from Columbia University in chemistry and went on to teach biochemistry at the Boston University School of Medicine. Finally, at the time of Sputnik in 1958, he went back to full-time writing and has been there ever since. He published Fantastic Voyage in I think it must have been about '62-'63, somewhere in there. So whatever the merit of Fantastic Voyage was, it was, perhaps, partly due to the screenplay and to the unifying aspects of the screenplay, although I did read the first Fantastic Voyage and thought it was a lot better than the movie itself.

They came to Asimov again with the same proposal. They were going to make a Fantastic Voyage II, another movie, and they asked if he would write the novel. They offered him a lot of money, something between \$500,000 and \$1 million, which shows how prices have gone up, and also how Asimov's time has become much more valuable. He makes about \$1 million a book these days, which is quite different from making \$800 a year. But he didn't want to do it. He suggested instead that they get Philip Jose Farmer to do it. He's another very excellent writer. And they signed a contract with Farmer; I think they were going to pay him \$500,000 to write it. Unfortunately, they didn't like his novel; so they came back to Asimov and said they wanted him to do it. He said he would under one condition, that he didn't have to stick to the screenplay. As a matter of fact, he went ahead and wrote his novel. Some people, like you, have not liked it as well. But he liked it. It turned out they didn't make the movie after all, mostly because another movie came along called *Innerspace*, which used the same basic notion. Whether Fantastic Voyage II will ever be made a movie, neither Asimov nor anybody else really knows. But if you didn't like the novel, don't tell Asimov. It'll hurt his feelings.

QUESTION: What did you think of the New Wave movement in Science Fiction?

ANSWER: New Wave was criticized for being too pessimistic, too inner-directed, too avant-garde, so forth, and which was so criticized by people who came to be known as old-wave readers and old-wave writers like Asimov who could hardly conceal their apprehensions about this. I was going to say contempt, but maybe that's a little too strong, because new-wave fiction was selling, and, after all, Asimov considers being able to sell what you write the ultimate test of whether something has any value or not.

Whether this sort of thing is also being said today about the new movement that I identified as cyberpunk, no, I don't think so. The new cyberpunk movement actually belongs much more to the romantic tradition, to which, indeed, science fiction probably belongs as a whole. The term "romance" refers to the fact that characters are usually larger than life, they usually behave in ways in which we would like to think we would behave at our best moments, rather than being realistic or depressing about the human condition as much of "serious" literature tends to be. In fact, Brian Aldiss, another science fiction writer, has commented that all serious fiction is concerned with the fallen state of man. He also has defined science fiction as "hubris clobbered by Nemesis." That is much more of a European tradition, however, as indeed the New Wave was as well. It was nurtured in England about the time of the Mary Quant revolution. You all remember Mary Quant and her miniskirts, about the time London was swinging and the Beatles were taking over the world, and when everything seemed to be moving in that direction.

It also was a time of great revolution in the world, when a lot of educational institutions, like the University of Kansas, were disturbed, upset, and turned upside down by student rebellions. It happened in Paris and even in staid England as well. The Vietnam War was

troubling a lot of people and there was a great deal of protest about it; many people were questioning values. Out of this whole thing came the movement in England, beginning in 1964, when Michael Morecock, a young writer at that time, primarily of heroic adventures, became the editor of *New Wave*. He was about 28, the same age as John Campbell when he became editor of *Astounding*. He began gathering around him able young writers like J.G. Ballard, Brian Aldiss, John Brunner, and several others. He began urging them to write stories, as J.G. Ballard said that “focus much more on inner space than outer space.” These stories were much more concerned with our psychology than with our physics and our astronomy. As a consequence, some of the stories were very well written, but depressing. Most of the characters in them were, as in J.G. Ballard’s stories, confronted by great catastrophes, in the face of which they were helpless and merely became victims and people who suffered a great deal; in some cases, they even conspired with the catastrophes to internalize them. It’s only if you remember that J.G. Ballard spent his teenage years in a Japanese concentration camp in Shanghai, and you realize that *Empire of the Sun*, the movie recently made by Steven Spielberg, was a film version of Ballard’s autobiographical novel, that you realize where Ballard might get the impression that the world, indeed, is not something to be hopeful about. A boy can grow up trying somehow to get along in the best way, and will likely not succeed. Today, however, the cyberpunk movement – which began, in effect, with a novel by William Gibson called Neuromancer, “neuro” referring to nerves and “romancer” meaning somebody who romances in this area – is much more hopeful. The people in it, indeed, are living rather desperate lives, but they’re getting by, and they are often succeeding in coping with these tremendous forces allied against them, these artificial intelligences and great inimical powers. The computer jockeys form an underclass, and have learned how to use this computer network to jack themselves into what they call cyberspace and exploit it.

The underclass has always been able to get along in the world in which it finds itself. So it is much more of a romantic literature. The real cyberpunk movement has been very short-lived, probably doesn’t exist any more, because the people who were doing that now have gone on to doing other things, and what was cyberpunk has sort of become another tradition which is integrated into the broad tradition, just as the New Wave has been. The kind of literary experimentation that existed in *New Worlds* and after *New Worlds*, in anthologies called Dangerous Visions and in *Orbit* and other kinds of publications, made it possible for Old Wave writers like Jack Williamson, who’s 80 this month, to continue. He is still writing, just published a novel last month, and had his first story published in 1928, 60 years ago. And here he is, still at work. Even writers like Jack Williamson got from the New Wave the permission to write more adventurously, more daringly stylistically than they ever had before, and people like Frederik Pohl were able to write Gateway and books like it. So all of this eventually works out, I guess, in the literary way at least, if not in the actual physical way.

QUESTION: Have speculations about outer space also extended into some of the biological areas of medicine and instrumentation?

ANSWER: The role of biology really is just now coming to the fore. There have been a lot of novels recently, and stories as well, which have dealt with the improvement of the biological sciences. One novel I’ll give you as an example is by Greg Bear, called Blood Music; it speculates about the development of biological computers, which is a new speculative thing in computer science. The idea is that, rather than using physical transistors that pass signals through miniature physical objects, perhaps we could engineer living molecules that could process

signals in the same way. Blood Music tells about one such experiment that gets out of control and takes over. But as for medicine – my brother may smile a bit at this – in the early ‘50s I wrote a novel in the basement of my parents’ and brother’s house. I was writing full-time at that time, and I finished a novel in four parts. The first part was called “New Blood,” the second part was called “Donor,” the third part was called “Medic,” and the fourth part was called “The Immortal,” and it all came out from Bantam Books in 1962 under the title The Immortals. The novel told about the future of medicine.

Some of you may remember that The Immortals became a television movie in 1969 called “The Immortal” and then an hour-long series of 15 glorious, inglorious episodes I suppose I ought to call them, because they were pretty bad, in the following year. But it did deal with the future of medicine. I sent a copy to the then Dean of the Medical School because I thought he would be interested in the fact that I had the Medical Center taking over half of Kansas City. The rest of Kansas City was in the slums because the emphasis on medicine had deprived the rest of society of resources. Everybody was concerned about living just a little longer and, I should mention also, that the University of Kansas had been taken over by the hereditary governor of Kansas, who lived in a redoubt 800 feet below the surface, right down there below the campanile. The hero eventually had to make his way down there to solve the major problems that existed in that future world.

So, yes, I solved all that, but many other stories are coming out today because biology, in science fiction at least, as I suspect in our world itself, is the new frontier. That’s where most of the new breakthroughs are going to happen or are happening. We are a little fearful, of course, because, as in the case of all advances, we aren’t certain we’re going to like them, and they might even turn out badly. But they don’t have to if we think about it. And that’s the virtue of science fiction, because it can provide us with scenarios of both the good and bad developments. It allows us to pick and choose between them.

QUESTION: What science fiction television shows have you seen that you consider the best?

ANSWER: That’s a real stumper because there really haven’t been many good ones, and those that are good are only half good. The original *Star Trek* probably is the best of the things that have been on television in one respect, though its third season was not too great because the writing was not too good. Its first two seasons, when they were using science fiction writers to write many of the scenarios, were really first class. But it was marred in a way because the audience liked the characters, not because, necessarily, they liked the stories. They liked Spock and Kirk and the relationships between the characters. But any time you have a persistent cast, you have to compromise what you can do with that cast. The best format for a science fiction television show is the anthology format because, since science fiction really deals with change, you cannot tie it down to any particular story or group of characters. So what you really need is a new story each week, and the opportunity to do something new each week. But that requires a lot of imagination. It also requires that an audience be patient with a show and go back to it simply because it is either well written or exciting or a new idea well done, perhaps, rather than because you like the characters. And most audiences don’t do that. Most audiences go back to a show because they like the people and not necessarily because they like anything else.

So, *Star Trek*. Also, the *Next Generation* series is going pretty well. Probably also, however, *The Twilight Zone*, though much of it was fantasy, was pretty good in some of the

things it did because it was an anthology show. I'm afraid that the recent anthology shows, *The Twilight Zone* that they brought back, was really not very well written and not very well done, and Steven Spielberg's *Amazing Stories* was just Steven Spielberg spinning off ideas that weren't good enough for movies into shorter formats and I found it kind of dull. The remake of the Alfred Hitchcock show was not all that exciting, though perhaps the best of the three. None of them were really good enough. I went out to Hollywood just before this happened about four years ago, and talked to several producers. I said that what we really needed to do was an anthology series made up of adaptations of good stories, of which there are many, and call it "Science Fiction Theater." I offered to serve as the story editor. None of them saw the vision of this.

QUESTION: It's common knowledge that President Eisenhower liked westerns. I'm wondering if, because of his predictions for Star Wars, President Reagan is interested in science fiction?

ANSWER: Well, I do know that the President has listened to some science fiction writers. There is among science fiction writers a considerable divergence of opinion about Star Wars. There's a group of writers who are very high on this idea, including writers like Jerry Pournelle and Ben Bova. I think Jerry Pournelle probably was a member of an advisory committee who either sponsored or came up with the idea of Star Wars, the idea that was eventually adopted. But there is an equal body of science fiction writers, perhaps even greater, who think it's the worst idea they ever heard. A number of people, I think, have adopted it in the field because they think it will be helpful for space development, even if it doesn't work as a defense. They may be pushing it because it's a good way of getting the human species out there into space, where they think the human species belongs.

QUESTION: That makes me ask the question, how many science fiction writers are employed by NASA?

ANSWER: Not many. There are some science fiction artists, however. I called Vincent DiFate recently, who is a science fiction artist who wrote for my science fiction encyclopedia ([The New Encyclopedia of Science Fiction](#), to be published by Viking in October), an article on science fiction illustration. I called him a little while ago and asked, "Can you do an article on this artist, or that?" He said, "No, I can't. I'm painting some pictures for NASA." So, we do get in that door. There are a lot of readers there and there is one writer, a fellow named Joseph Green, who works for NASA at Cape Kennedy. There may be others.

QUESTION: In the history of the genre, is there any pattern in the appropriation of religious themes, either Western or Oriental?

ANSWER: Yes. Certainly science fiction has concerned itself with religion. Arthur C. Clarke has written a story called, like H.G. Wells' story, "The Star," which tells about another priest who is a member of an exploratory party that is exploring one of the nebula that surrounds a star that has gone nova. He and the members of his party discover that there once existed a planet, a world, which apparently was inhabited by a civilized race which was gentle and philosophical. This was the planet that exploded, and was seen on Earth at the time of the birth of Christ. This was the world of the star that shone over Bethlehem. The priest asks himself the question, "How can he reconcile this destruction with the good that it may have caused?"

QUESTION: I was just curious. Can you maybe tell us a few of your personal favorite science fiction books, maybe recent or past.

ANSWER: I went through stages, like everybody does. I spoke about the golden age of science fiction; the golden age of science fiction is thirteen, and that's the time that you read all the stories that are best, because you encountered them at that age. I went through a period when I read all of Edgar Rice Burroughs that I could lay my hands on. I thought that was wonderful. Then I graduated to some of the magazines, and they were wonderful. But gradually I began to be more discriminating. Not that I still can't read Edgar Rice Burroughs and enjoy his Martian stories, but I recognize that they're not as good as I thought they were at the time. One of my favorite authors became Robert Heinlein. I can indicate how much I thought of him by the fact that when I put together a four-volume teaching anthology called The Road to Science Fiction I subtitled the first volume "From Gilgamesh to Wells," the second volume "From Wells to Heinlein," and the third volume "From Heinlein to Here." When I came to the fourth volume people said, "You can't go any place from here," but I titled it "From Here to Forever."

I like Isaac Asimov, and I liked him a great deal when I was writing. Now Frederik Pohl is one of my favorite writers. You like writers for different reasons. Different moments, different times, and maybe different books. I like Robert Silverberg a great deal for sophisticated writing. Brian Aldiss is very good, and John Brunner and some of the newer ones. I think Gregory Benford's Timescape is a remarkable book. I like Neuromancer, the William Gibson story. I like almost everything but, unfortunately, I don't have much time to read any more. I'll recommend a recent book, which I think quite good, written by a first-time novelist named Connie Willis, who lives in Colorado. She's written a very good first novel called Lincoln's Dreams, which, if you like the Civil War as well as a kind of romantic story and a well written novel, you would enjoy it. It isn't typical science fiction, but it's quite good.

QUESTION: Is there a correlation between clairvoyance and science fiction?

ANSWER: I don't know any science fiction writers who really believe in clairvoyance. As a matter of fact, on the whole they're a very skeptical bunch. Most of them do not believe in flying saucers or UFOs or any of the psychic powers as such. The horror writers are a different matter. I don't know why, but Whitley Streiber, for instance, has come out with a book about being taken aboard a UFO. Most people think it's more inside his head than outside. I guess I would say I don't think there's any correlation between science fiction and clairvoyance, although, to be sure, in Lincoln's Dream, a young woman keeps dreaming very vivid dreams about what seems to be the Civil War. In fact, what she seems to be having is Lee's dreams, and it is tremendously disturbing to her. The idea is quite poignant. Here was this good man, Robert E. Lee, honor-bound to take over what was, perhaps in his own mind, a losing cause, and to be responsible for the deaths of thousands, hundreds of thousands of young people. The better he was at it, the more people would die. This troubled man projects, maybe, his own dreams forward to the present, and he becomes the subject of a remarkable piece of fiction. A good idea! I wish I'd had it.

QUESTION: Is Brave New World a true work of science fiction?

ANSWER: It is so regarded by science fiction writers, not necessarily by literature teachers. Certainly by every definition of the genre, Brave New World is a science fiction work, but because it was written by a person who really had nothing at all to do with the science fiction movement, who never published in magazines, and who never wanted to, many critics say that it

isn't science fiction. But there is a built-in prejudice in literary circles against science fiction because it came out of the pulp magazines. Moreover, much of it, indeed, was written hastily, and much of it is not very well done. As Ted Sturgeon once said at a convention in Philadelphia, "Science fiction is the only genre that's judged by its worst examples rather than its best." He said, "When we talk about the detective story, we talk about *The Maltese Falcon* or something like that. When we talk about the western, we talk about *The Way West*. But when we talk about science fiction, we say that *Buck Rogers* stuff. Critics say, "Ninety percent of science fiction is crud." That's true. Ninety percent of science fiction is crud. But ninety percent of everything is crud." Let's judge science fiction by the other ten percent.

JAMES GUNN is one of the world's leading authorities on Science Fiction. He is the author of 19 books, eight of which have been published in magazines and books worldwide, and the editor of six. Several of his stories have been dramatized over NBC radio, and his novel The Immortals was dramatized on national TV. It later became the basis of an hour-long series, "The Immortal," in 1970. The New Encyclopedia of Science Fiction, for which he has been general editor, will be published in October of 1988 by Viking Penguin.



Gunn was born in Kansas City in 1923. He received a B.S. in Journalism in 1947 and an M.A. in English in 1951, both from the University of Kansas. He has worked as an editor of paperback reprints, as managing editor of K.U. alumni publications, and as director of K.U. public relations. Now a professor of English at K.U., he has been specializing for more than a quarter-century in Science Fiction, and is the director of the Center for the Study of Science Fiction.

Gunn has served as president of the Science Fiction Writers of America and as president of the Science Fiction Research Association. He received a special award from the 1976 World Science Fiction Convention for Alternate Worlds: The Illustrated History of Science Fiction (1975), and a Science Fiction Achievement Award ("Hugo") for his book about Isaac Asimov's Science Fiction.

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