FRANK HERBERT

Men on Other Planets

They're human.

You surmise this from the descriptions. They're bipedal. They have two arms with conventional hands. The head is in the right place with chin, mouth, nose, eyes, hair on top, visible ears. But they may be both male and female in one body, shifting from one sex to the other at the behest of strange chemistry (Ursula Le Guin's *The Left Hand of Darkness*) or they merely assume human shape for disguise (Jack Vance's *Star King*).

From *Star Trek*'s Spock through the Wellsian cannibals at the end of time, these humanoids stalk the worlds of imagination. They walk on other planets, in space craft or on an earth so changed that you would not recognize it without a program. Then again, it may be your earth, but changed only in ways which accent trends visible all around you—*Brave New World, 1984, 20,000 Leagues Under the Sea, Childhood's End* . . .

What price a glimpse of tomorrow?

Where does fiction end and fact begin? When is it another world?

In a real sense, Joshua Slocum is a man on another planet. He lives out a recurrent human fantasy in chosen isolation. That isolation aboard his tiny sloop, *Spray,* is so different from the ordinary lives of most humans it might as well be on the black side of a

planet circling a star in the Draco Cluster.

When we put our fictional men on fictional planets, we are dealing with a phenomenon that has surpassed in popularity the onetime front runner, detective mysteries. Why, in this particular age, have we singled out science as the guilty party (or the hero) instead of the butler?

Whodunit?

We all did. But why?

When you begin to glimpse an answer to that question, you begin to understand the craft behind this genre. Cyrano de Bergerac understood this when he turned from a real life of sword and sorcery to send a fictional hero to the moon. Certainly most who practice the craft of science fiction today understand the problem.

At one level, to put humans on another planet requires that you make alien places and people understandable to contemporary readers. (Let posterity take care of itself in this regard; there'll probably be academics around who can translate us for *their* contemporaries.) You begin by creating an understandable human/humanoid/sentient in an alien culture and right there, even though you may not intend it, you will reflect in some way the current human condition on Planet Earth.

Your Time Machine will have the appearance of a horse-drawn sleigh. Your hero will go to the moon on a lighter-than-air balloon or be fired there from a gigantic cannon. It's interesting to speculate how the writers a hundred years from now will make this same comparison looking back at our obsession with rockets. No matter how hard we try, we cannot entirely escape our times. Some small point will drift into print and leave its mark. *Player Piano,* although a landmark in its day, already is rather quaintly out of date. We may be past *1984* already.

Yet the science fiction phenomenon remains and the *why* begs an answer. It is not in stick-figure characters playing at Cosmic Mechanic or Rover Boys on Pluto; it is not in our time-bound curiosities. You won't find the answer there. But you will find it in those penetrating accuracies which glitter on Captain Nemo's control panel, in Cleve Cartmill's devastating prediction about the manufacture of atomic weapons, in Arthur C. Clarke's almost casual revelation of Telstar twenty years before the launching, and even in my own 1952 warning *(Under Pressure)* about the coming crisis in fossil fuels. It's in all of these: in Samuel R. Delany's *Babel-17.* It's the solid sense of character reality in such creations as Harold Shea (L. Sprague de Camp's *The Incomplete En-*

chanter) or Isaac Edward Leibowitz (Walter M. Miller, Jr., *A Canticle for Leibowitz*).

Star Trek's control-room drama may have opened doors for people with misconceptions about science fiction, or for those who had never been immersed in it previously, but this is not where the current popularity rests, nor does it explain the fascination of putting humans into other futures, other planets, other cultures.

No, we have other things going for us.

First, we are talking about futures. In an age when many people question whether man has any future at all, we bring the imagination to grips with a variety of survival patterns. We preach ecology and we damn it. We utter warnings about unforeseen consequences. We explore strange paradises.

Second (and probably most important) the creation of understandable humans in understandable alien cultures on understandable other planets has to reflect in some ways the present human condition on Planet Earth.

The key word here is *alien.*

Does your conceit lead you to believe that you possess an absolute understanding of Mao Tse-tung's utterances?

Absolute?

The conditioning of most cultures on this planet tends to set up absolute categories, each with attached judgments about good-bad, beautiful-ugly, saintly-evil, painful-pleasurable, sacred-profane. Western culture is particularly obsessed with this absolutism through its narrow vision of a linear pragmatism hitched to technology. We have been taught to believe that for every problem there is a scientific answer. Every problem. Any denial of such absolutes raises opaque barriers which block new understandings.

But in science fiction we're not talking about a real earth, are we? It's all imaginary, a game, entertainment. It's other planets, other people. The opacity is reduced. You can make out shadow shapes which may have a certain reality. An entertaining view of realities.

There can be more than one reality.

You see, Dr. Einstein, we heard you.

This is probably science fiction's major attraction, linked as it is to all of the old myth strings we humans carry around. We humans still deal in archetypes with our politics and our entertainment, in our sex lives

and our hobbies. Whether they see it clearly or not, science fiction writers play in this same arena.

You don't believe it?

All right—here are some classic myth ingredients:

The hero on a search/journey (for which read in science fiction Captain Kirk, Isaac Leibowitz, Jerome Corbett, Paul Atreides, Susan Calvin and so on and on . . .).

The Holy Grail which the searcher seeks (for which read in science fiction "almost any utopian story").

The ability to talk to animals (the stories of extrasensory perception where humans enlist the help of animals and/or vice versa).

The shaman who understands great mysteries and can bring them into the service of humans (for which read "any fictional scientist"—or real one for that matter).

Furthermore, science fiction is full of father gods, falls from paradise, wise old men, tricksters, people who change persona with a change of name, virgin witches and great mothers.

We also have our share of sorcerers (and sorcerer's apprentices), all of whom are variations on the shaman/scientist.

And one of our creative problems has been to show how directly these myth creatures apply to the world around us. If you want a recent example, look at how many of the myth characters are personified in the Kennedy Clan. Who first came up with that Camelot label?

If you're going to put men on other planets, it's well to understand these things. In academic terms, what we do is to create our own intercultural ethic and aesthetic out of the structural parts already available all around us. This is partly a problem in anthropology. Therefore, the newcomer to this genre should be warned. Because such problems often deal with Western society's unconscious taboos, a few outrageous clichés recur with maddening regularity. Ask any editor in this field. The most common first story from a would-be writer of science fiction replays the Adam and Eve theme (as survivors of an ultimate war, as castaways from a derelict spaceship, as a life form introduced from elsewhere or elsewhen and so on and on and on *ad nauseam*).

Our taboos ring in other changes that deserve careful watching, both as sins of commission and omission. You recognize these taboos and changes by their assumptions. Here are a few to consider as a sensitizing exercise:

1. Man is the king of all animals. Thus his planets (plus any alien

occupants) are beneath man; they exist only to be exploited.

2. Only man has language. (Remember Carl Gustav Jung's warning that we must discover another sentience in the universe before we can understand what it is to be human. This proposition grows more fascinating as we teach more and more chimpanzees to talk Ameslan.)

3. The only thing wrong with our universe is that humans have not yet invented the right machine. (Many of us have assaulted this assumption. Isaac Asimov did it with beautiful directness in *I, Robot.* Tongue firmly in cheek, I took it on in *Destination Void.* Kurt Vonnegut's *Slaughterhouse Five* plays this theme legato.)

4. All human behavior can be traced to a) genetics, b) conditioning, c) cosmic intervention.

5. Current labels are adequate to describe any changed condition. (It'll still be Communists vs. Capitalists in 3031 A.D.)

With rare exceptions, authors and/or editors well understand the area of the current most dangerous taboos. When you see a story described as "daring," depend on it, that story has at least touched on one of those taboos. Of all the literary genres on the current scene, science fiction ventures into these arenas the most often.

You don't believe these taboos exist?

Have you read any good stories lately (outside of science fiction) where an orgasm is the highest religious experience? Maybe the world never was ready for Tantrism. Okay.

But if you're going to create science fiction, these are some of the questions you must ask, some of the limits you must recognize. Having recognized them, you can appropriate them for your own. Your hero can have clay feet. Your holy virgin can be barren. The innocent child can lead his people to destruction. A nymphomaniac can be the most honorable person in your alien society. The sensitive and concerned liberals can be the ones who make the grossest and most deadly mistakes. World Government can be demonstrated as a complete disaster. A football game can be the supreme intellectual delight. The utter ecological destruction of the planet is man's sole key to survival.

Are you getting the picture?

What is it that you believe without questioning? What is it that serves as the main prop of your identity?

What kind of a story would come out of your discovery that your most dearly held beliefs are completely false? Your beliefs, not those of someone else that you wish to attack. This is no debating society

where advocates meet to listen only to their own arguments. We might assume that the advocacy system is humankind's greatest flaw and attorneys (plus their legal structure) are essentially parasites destroying their host.

Invite paranoia and explore its contexts. Science fiction has done this often. There *was* something following the little old lady. And it ate the psychiatrist for desert. Now it's cliché, but once it was new.

There you are: make it new. Listen to Ezra Pound. He was right. "Make it new."

Science fiction, because it ventures into no-man's-lands, tends to meet some of the requirements posed by Jung in his explorations of archetypes, myth structures and self-understanding. It may be that the primary attraction of science fiction is that it helps us understand what it means to be human.

Any reader of science fiction turning to page one of a new story has an implicit understanding that the function of what he is about to read will extend far beyond physical descriptions. Except perhaps as analogue, the value of putting men on other planets is greatest when it ceases to be a contest with that life which can be seen when you look up from the printed page. You know that the story will take you through experiences that cannot be achieved through any other means than the story. In fact, it may inflict upon you an experience that could never take place at all, except perhaps in your wildest fantasies. Your implicit understanding reaches even farther, though. You know that this story can be measured against a scale of achievement where the supreme experience comes when (no matter any logical objections) you are made to believe that these events might take place just the way they are laid out in the story.

And right here is where science fiction is most attractive as an art form, but also where it lays out the most traps for an unwary writer. The temptation is to wallow in excesses, to inflate your sense of "how strange!" to such an extreme that it dulls the sensibilities or even repels. Something like this happened in the development of what are obviously science fiction's current clichés, the clichés which science fiction created —the monster and the maiden, the variations on Adam and Eve, the aliens who come to earth as missionaries, Ezekiel's wheels as helicopter rotors, the planet as egg of an interstellar monster, and so on.

Make it new.

Even while using old themes, make it new.

It's by restraints and subtleties, by aftershocks, that you can create your greatest effects.

Were you really surprised when Charlton Heston discovered the remains of the Statue of Liberty on the Planet of the Apes? It had a certain time-stretching effect, but surprise? How much more interesting if he'd discovered a toilet bowl (more likely to survive the eons) or a perfectly preserved Landon button.

Readers and editors tend to say: "Oh, no! Not another cosmic egg story!"

Now, let's invert this argument for a moment and remind you that there's a supreme achievement in storytelling when you can take on one of these clichés and make it so vivid, so new in its construction that no one minds the cliché.

The argument here is obvious: don't cater to the lowest common denominator in those reactions available to you. Don't cater to the weakest reaction patterns. Don't go for the throat; go for the guts, but do it in such a way that the reader realizes that's what you've done *after the fact.* Make damned sure you know your story objective (and it had better be at least nine-tenths entertainment).

This brings us naturally to the pot of message often found in science fiction. Quite a few science fiction writers will tell you they are attacking our current culture head on. They really believe this. But if you look at the consequences of the most extreme efforts in this class, you find that they have merely reinforced the cultural characteristics which drew their most strident verbal scorn. This is quite often the ultimate effect of the most fanatical world-changers. Thus, while some writers avow that they are out to change (or even wreck) the culture which they despise (even while that culture is offering them a good return on their efforts), the polarizing effect of such writing tends to do quite the opposite. It exposes the values which have maintained the cultural characteristics dominating our society. The writer's ambivalence shines through all his preachings: he needs the society and the culture which he attacks. He's in a transactional relationship with it. This is the relationship that can be observed, for example, when you see large groups of medical practitioners behaving in a way that maintains a certain level of illness, that level which justifies the continuing function of the group *as they see that function.* The process here is an unconscious one but nonetheless real for all that. Such unconscious processes are fair game for science fiction because they are embedded in the society. Once exposed, they have a

"the-king-is-naked" flavor and they are less social attack than social exposure. There are no guilty and no innocent. Every living human behaves to some degree according to unconscious processes. The trick is to recognize this and cast yourself (as writer) in the role of commentator rather than advocate.

This is a rather delicate line of reasoning to follow because it so easily raises opaque barriers. A physician reading the above paragraph, for example, could be thrown into an immediate defensive posture even though he knows (rationally) quite well that the word *iatrogenic* has real meaning in his practice. (Iatrogenic is defined as "of a neurosis or physical disorder caused by the diagnosis, manner or treatment of a physician or surgeon.")

It's one thing to know something rationally and quite another thing to behave as though that knowledge had real physical application in your own life (because how you view your life can be so securely tied to the way you *feel* your own identity).

Follow this reasoning with me, though, because it has a great deal to do with the whole process of putting fictional men on fictional planets. No human being on our "real" planet is completely free of his unexamined assumptions. And it is precisely this that science fiction does better than any other art form with the possible exception of cartoons.

We examine assumptions.

Certain phenomena have been locked up in the unexamined assumptions of our society. It's in unlocking these phenomena with their attendant assumptions, exposing the structure to view, that science fiction does its greatest, most enduring work. What other human activity ventures this deeply into the crystallized (and crystallizing) structures of our society and exposes these structures to a broader view?

It might clarify this to re-examine briefly one of the all-time classics in science fiction, the Foundation Trilogy (which isn't a trilogy but nine beautifully constructed stories, each a jewel in its own right). Let's just take up a few of the assumptions within Asimov's work.

1. The nine stories are firmly rooted in behaviorist psychology to an extent that would gratify B. F. Skinner. Foundation history, which is to say the human function, is manipulated for larger ends and for the greater good as determined by a scientific aristocracy. It is assumed, then, that the scientist-shamans know best which course humankind should take. This is a dominant attitude in today's science establishment all around the world. ("The Sorcerer's Apprentice," a symphonic poem

by Paul Dukas, isn't a very popular work with this establishment. The plot from the Goethe poem deals with an apprentice sorcerer who tries one of his master's spells and can't countermand it.)

2. While surprises may appear in these stories (e.g., the Mule mutant), it is assumed that no surprise will be too great or too unexpected to overcome the firm grasp of science upon human destiny. This is essentially the assumption that science can produce a surprise-free future for humankind. There's another Skinnerian tenet. It says that you produce this kind of future by management. And *that,* with all of its paradoxes and inconsistencies, is another recurrent theme in science fiction.

3. It is assumed that politics in this managed future can be reduced to the terms, the conflicts and the structures as they are understood on earth today. This is an odd assumption by a scientist because it says that nothing new will be discovered about politics in all of those intervening centuries. We can close the Patent Office, so to speak; we already know it all.

This is not to detract from Asimov's achievement. You should understand that there are very strong literary and communications reasons why his was a good course to take at the time. All of us, and especially those of us who write science fiction, owe Asimov many debts. (From where I sit, I can see nine Asimov nonfiction titles on my working library shelves.) What I am saying is that Asimov, in common with all of the rest of us, operates within a surround of assumptions, any one (or combination) of which could serve as the jumping-off point for an entirely new series of stories. The assumptions are there and can be lifted out with this kind of analysis. In passing, it should be noted that these three assumptions can be found together or separately in many science fiction stories.

Now, see what happens if you assume an opposite viewpoint. To give you an example of how this leverage works in lifting out our unexamined assumptions, let's take a science fiction look at a current problem in the United States—hard drugs. Here are some of the transactional structures involved: guilt-innocence, control-controlled and life-death. Those are pretty heavy relationships and they operate within the assumption that we (in the form of our government) can manage absolutely all of the variables within known limits.

Now, we turn the systems over. We assume that we do not have a system of absolute and known limits, that we cannot control all of the variables and that our approach doesn't have to be involved with guilt-

innocence or our own attitudes about personal life and death. Our aim would not be to solve *the* problem but to reduce its influence, throw it into a smaller arena.

This gives us the following: the hard-drug market operates within an open-ended pricing system where no top limit has ever been found. This means that if we cannot stop all of the hard drugs from entering the country, those we do confiscate merely increase the price on what does reach the market. That price is inflated to take care of bribes which can buy senators, congressmen, generals, diplomats, police, customs officers. (Remember that we're talking about billion-dollar slush funds.)

What happens if you lower the barriers and offer a fix at the corner pharmacy to any registered addict for fifty cents? Have you solved the drug problem? No. But you've cut organized crime out of the market. And you've removed the major source of new addictions. More than three-fourths of the present addicts were maneuvered into addiction by other addicts who became pushers to support their own expensive habits.

You've also relieved an important bureau (Customs) of one of its primary tasks, one of its reasons for being. You've removed a major way that people feel innocent (by redefining an extremely large body of the guilty). And you've admitted that there may be some things that cannot be controlled absolutely.

In my hypothetical science fiction story, the three items listed in the paragraph above (plus pressure from professional criminal profiteers) would combine to resist any change in the present system. Here's an important story ingredient, conflict, combined with a currently recognized problem, all of which lend themselves ideally to fictional exposition. And if you put the entire thing on another planet you make it much more palatable to contemporary readers.

You're not talking about real places, real people.

Are you?

What we have in the science fiction techniques being explored here is the fine use of conjecture as a literary tool. Science fiction gives you the added elbow room of entirely new places for things to happen to people. It allows you to generate your own values for your alien places. It permits you to go beyond those cultural norms that are prohibited by your society and enforced by unconscious (and conscious) literary censorship in the prestigious arenas of publication.

And here is a real danger in the current trend toward academic

acceptance of science fiction. If it becomes too prestigious, science fiction will encounter new restraints. In the Soviet Union, where all writing carries a high prestige mark, you don't find science fiction stories dealing with political systems at wide variance with the Soviet state. This may not be the best example to make the point; different modes of enforcement are accepted in the Soviet Union, but it does indicate what could happen to a free-swinging literary form when social norms change.

We still have, however, our virtually unlimited resource of unexamined assumptions and our arsenal of imaginative conjecture.

What if . . .

The fictional story as vehicle of lasting influence is well recognized in our world. As Abraham Lincoln said to Harriet Beecher Stowe, who wrote *Uncle Tom's Cabin*, "So you're the little lady who started the Civil War." There was some truth in his remark, although the other influences on that conflict make better stories. With 20-20 hindsight, we can see the influence of Bellamy's *Looking Backward* on 1930s socialism. We can see the influence of Huxley's *Brave New World* on today's attitudes toward population control and police states, or of Orwell's *1984* on the way we view utopias and dystopias. But none of these would have had any influence at all if contemporary readers had not been attracted to them for reasons that were primarily entertaining.

If you want a gold mine of science fiction material, pull the assumptions out of the current best-seller list. Turn those assumptions over, look at them from every angle you can imagine. Tear them apart. Put them back together. Put your new construction on another planet (or on this planet changed) and place believable human beings into the conflict situations thus created.

It isn't the ideas that make the story; it's what you do with them. Ideas are a dime a dozen. *Development of ideas*—that's where the diamonds are. The difference between dirt and ore is what you can get out of it.

The belief that the idea is the story persists, however. A bane of every writer's existence is the person who comes up to you and says: "Hey! I have this marvelous idea for a story! Now, if you'll just write it, I'll split whatever it makes with you."

My own response is to say: "I'm sorry, but I don't have enough lifetimes to exploit all of the ideas I already have."

This doesn't always stop the more persistent. You can see in their eyes that they don't believe you. Regretfully, sometimes you have to be rude.

Insist that the fountain of ideas write his own story. Refuse to listen. Flee.

So don't use my gold mine of science fiction material. Create your own. That's what it's all about, isn't it? But it might be helpful for you to see where we've already been, to learn the clichés, absorb the labels that communicate commonly understood concepts. *Robot,* as a word, entered the language at a particular place and time. There was no such thing as a *slidewalk* before Bob Heinlein gave it to us. Do you know how the mechanical amplifiers of human muscles came to be called *Waldos?* Where did the word *plasteel* originate?

As the best of the science fiction writers do, start looking at our present planet as a set of long-term influences, a system of resonances which can be read as bio-rhythms—the combined impact of moon, tides, sun, variations in atmospheric electricity, and so on. Did you know that the earth's tides change the amount of fluid in your body's cells? What would happen to "human psychology" on another planet with different tidal variations, different resonances in its atmospheric chemistry and electricity?

And if these ways of looking at our current condition don't work for you, invent your own ways of looking. But, to be sure you really are inventing, sample where imagination already has taken science fiction. Here are a few examples to show what I mean:

Brian Aldiss in *The Salvia Tree and Other Strange Growths* has extraterrestrials (aliens, eh?) visit a farm in turn-of-the-century England. The ETs make the farm blossom, intending to devour the entire animal population, including the humans. The viewpoint character exchanges letters with H. G. Wells.

Jack Vance in *The Dirdir,* which was the third in his *Planet of Adventure* series, has natives and humans of Ischai compete for dominance under conditions where his planet abounds with different species that complicate existence. There are, to sample them, the Chasch breeds, the reptilian Wankh, and the predatory Dirdir, who hunt and eat humans. (See Aldiss, above.)

Mack Reynolds replays human history in *Space Barbarians.* The ingredients will seem familiar, although the settings are not. He exploits a highly technological society, vigorous and uncaring about who or what brings a profit, which clashes with a primitive society in a social and economic stasis. The outcome is not necessarily surprising, but the way there is entertaining and informative.

Through such stories wend certain assumptions. The legal owners of real estate, including a planet, are the beings who occupy it. Humans tend to shake down into hierarchies which resemble tribal organization. Science is good. Science is evil. Other planets have to be at least vaguely earthlike. (Otherwise humans can't live on them.) The alternative: adapt humans to the planet. (That's what evolution did, anyway, didn't it?) Time is linear and flowing—an analogue river. Mankind is headed toward some form of apotheosis (having fallen from paradise, humans will once more become godlike). Magic is merely science misunderstood.

And those observations just touch a few of the high points.

To come full circle, let's go back to myths. Myth here is used in its classical sense: a traditional or legendary story usually concerning events which transform human into superhuman, if only briefly. Science fiction is, in part, a myth-creative format. Since the creation of myths is a day-to-day process solidified and codified for an era by the surviving dramatic works of the time (thus becoming traditional and legendary), we have in science fiction a window on an ancient process. Through this window we can see the codified myths upon which humans of our time place their greatest faith: science, progress, the triumph of intellect. These are rooted in Platonic absolutes: "Somewhere there is a single law which will explain everything."

And, summated: Science can show us the future.

Lest you be led into believing such things absolutely, take a brief look backward. The scientists of Franklin D. Roosevelt's Brain Trust, asked to predict "the course of technological development" from 1933 through 1958, said not one word about transistors, atomic power, jet engines or antibiotics.

Writing in 1967, Herman Kahn and Anthony Wiener for their book *The Year 2000* assumed a world system with a continuing increased rate of energy consumption spreading into the underdeveloped nations and culminating in such things as "moderately priced robots doing most of the housework . . ." plus "next-day delivery of mail" anywhere in the United States.

From a science fiction viewpoint, they made the depressingly common mistake of writing about *the* future instead of concerning themselves with *a* future based on current premises. They failed to examine many of their assumptions.

Given this kind of mass-energy bias, you can understand why David Lilienthal would assume that he could export his Tennessee Valley

Authority, with all of its extensive relocations and disruptions of existing people and systems, taking the TVA bodily to South Vietnam. It wasn't that he disregarded the social facts of Southeast Asia—the survival importance of community vitality and the profoundly maintained ancestor worship which requires that communities remain close to ancestral burial grounds—no, Lilienthal just didn't even consider that such elements existed. He made the Henry Higgins mistake: "Why can't the South Vietnamese be more like Americans?"

"Just you wite, 'Enery 'Iggins! Just you wite!"

With the bad track record of such prestigious planners, it's no wonder that the current world bias is pessimistic. The world picture has grown so black that a President of France can warn us that "the great curves which describe the future in our times all lead to catastrophe."

Thank you, Mr. President.

But science fiction continues to plug along with its stories about futures in which there are surviving humans. Those humans may not live in a 1960-projected future of enormous skyscrapers linked by loops and curves of highways far above the surface, a future of individual one-man flying machines and plastic bubbles over everything from a backyard garden to New York City. It may not even be the kind of future we were predicting in the 1890s—with trips to the moon and women doctors of philosophy, a bicycle in every garage, fast railroad trains linking every major population center and propeller-driven gas balloons. It may be none of these.

There will be humans in these fictional creations, though. You'll recognize them from the descriptions: bipedal, two arms with hands, head on top with nose below the mouth and . . .

What price a glimpse of tomorrow?

Frank Herbert

Frank Herbert has been writing thoughtful and exciting science fiction for more than twenty years; his first novel, *Dragon in the Sea,* is still in print here and abroad, as are many of his other books. In addition, he has published a great many short stories in the science fiction field in such magazines as *Analog, Galaxy,* and *If.*

Probably his best known work to date is *Dune,* published in 1965, and winner of the World Science Fiction Convention Hugo and the Science Fiction Writers of America Nebula awards. *Dune* has attracted international attention both as a novel and as an "environmental awareness handbook." It was followed by *Dune Messiah* and more recently by *Children of Dune* (serialized in *Analog*).

Mr. Herbert has done research in such diverse fields as undersea geology, psychology, navigation, jungle botany, and anthropology. He has been a professional newspaperman in several West Coast cities—including more than ten years with the San Francisco *Examiner.*

In addition he has been a professional photographer, TV cameraman, radio news commentator, and oyster diver and has lectured at the University of Washington and other universities around the country.

Mr. Herbert was born in Tacoma, Washington, in 1920, and has recently returned to the Puget Sound area. He now lives in Port Townsend, Washington, with his family.

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