HERE COMES IMMORTALITY

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Freeze-Wait-Reanimate

Will Howard Hughes be frozen? Is he already?

Is Walt Disney in cold storage?

How many Russian leaders are in the deep freeze awaiting eventual resurrection?

Will Mao Tse-tung go the way of the icebox instead of the blazing furnace?

These are some of the more intriguing questions that command the interest of leading cryonics pioneers in the United States. Scarcely more than a few years old, the Freeze-Wait-Reanimate movement has already surfaced in scores of cities and campuses around the country. Cryonics magazines and newsletters abound in both slick and mimeo format; lines of communication have been established with cryonics experts in Russia, Japan, France, Switzerland, Great Britain, and any other place where there are signs of cryonics activities.

Internal bickering among cryonicists is now routine: sharp exchanges fly back and forth between Robert Ettinger and novelist Alan Harrington, Alex Comfort and Robert Prehoda, who are involved in anti-aging research, Prehoda and Ettinger.

Ideologically, cryonicists run the gamut from far Left to far Right. Others, believing that all political ideologies are the result of a death-centered society, consider themselves above politics.

Members include teen-age geniuses who freeze and thaw frogs in the family garage, and simple-minded fanatics who push their cause with a fiery evangelism.

Heroes of the movement range from visionaries like R. Buckminster Fuller to biochemists Johan Bjorksten and Denham Harman, who have been working on an anti-aging drug for the past few years.

Some are interested in having the government launch a massive research program on cryonic suspension, while their colleagues are determined to keep the politicians as far away from biological research as possible.

Whatever their differences, they are bound together by a strong belief in one obsessive truism: death is the greatest curse that has ever afflicted mankind, and sooner or later it will have to be overcome. The sooner the better.

Having decided that the subject of life extension will emerge as a key issue over the next few years, you are endeavoring to find out as much about it as you possibly can. You've read Ettinger's *The Prospect of Immortality* and Harrington's *The Immortalist,* and have already been turned on to the idea of freezing the dead instead of planting them in the earth like avocado pits.

Your natural instinct throughout life has been to give cemeteries as wide a berth as possible. They have always struck you as little more than people gardens in which we subconsciously hope to grow a new crop of human beings by fertilizing their remains. Despite the failure of our necropolises to bear fruit over the ages, we have persisted in this unsuccessful attempt to reincarnate our dead.

Freezing, at least, seems to offer some little hope in this direction.

Cryonics, the science of preserving the recently departed at extremely cold temperatures—in the hope that they can be reanimated at some later date—is a fairly recent addition to the language. Technologically, cryonics is still in its infancy.

By the admission of our leading cryonics authorities, the problem of ice-crystal formation in the cells has not yet been overcome. Physicist Gerald Feinberg of Columbia University has determined mathematically that biological systems, maintained at extremely low temperatures, will remain dormant. The problem is to freeze and then thaw an organism and avoid the formation of ice crystals, which damage and destroy the cells.

To find out if any advances had been made in this area since Harrington's book came out, you place a call to the Cryonics Society of New York in Sayville, Long Island. Curtis Henderson, president of the society, agrees to see you at his house.

Henderson is a short paunchy man in his forties with ever-moving eyes and a restless manner. It becomes apparent almost immediately that he thinks about little else except the prospect of immortality. (The irony strikes you later on that he appears to be worrying himself to death over the idea of dying.)

"Have you read much about what we're doing?" he asks you at once.

"I've read everything I could get my hands on. Ettinger, Harrington, Amosoff, a number of articles."

"How about Suda? Have you heard about Negovski? Did you see this lousy book by Bodelsen? Here's a good one by Berger. Another funny one by Tidyman. Did you read McGrady's book?"

He is pulling books and magazines off the shelves and tossing them in your lap. Within seconds you are buried in an avalanche of paper and print, and find yourself immobilized on his couch.

Interviewing Henderson is easy. He is a nonstop talker and answers most of your questions in the natural course of his monologue.

"We've got a good membership now, but I don't know what's wrong with people. They don't seem to take death

seriously enough. Thirty, maybe forty, people in the whole country have made financial preparation to be frozen. People would rather spend their money having a good time in Florida. They don't think about death until it's too late. It's got to become a way of life. You've got to eat and sleep death every day. Nobody ever thinks it's going to happen to him."

"Is it expensive?" you ask when he stops for breath.

"Expensive? How much is your life worth? Is it worth the premium on an insurance policy? Today the capsule costs $4500. Then there's the transportation costs and the price of the perfusants. Then you have to maintain the nitrogen supply. All that costs money, but it'll get cheaper as more people do it. Right now we're building capsules one by one. It's like building a Cadillac in your own garage. Mass production is the answer. A $20,000 insurance policy will cover the whole thing; $10,000 minimum."

"Perfusants?" You're trying to free your arm from underneath the books so you can get some of this down on paper.

"Dimethyl sulfoxide and glycerine. We drain the blood out and perfuse the body with protective agents."

"How many people are frozen now?"

"That we know of? Eleven or twelve. But who knows how many others? Nobody ever found Walt Disney's grave. We know he wanted to be frozen, so who knows? Who knows what's going on in Russia or in China? There're rumors about a big research program going on in Russia right now."

"You mean they're experimenting with people?"

"Who knows?"

"Do you think they're freezing their political leaders?"

"You said it, not me."

"What do you think the chances are of any of these people coming back?"

"Realistically, not so good. There's still the ice-crystal

problem. Not only that, but everybody waits too long. If they'd make arrangements ahead of time, we could be there waiting for them to go. The way it usually happens is you get a call from somebody at the last minute saying he wants to have his wife or daughter frozen. By the time we get there"—he threw up his hands in despair—"you should see the condition they're in. We tell them what the chances are, but still they want to go ahead with it."

"So the technical problems still haven't been worked out?"

"No, but there's always the possibility of cell rejuvenation. Who knows what we'll be able to do in a hundred years? If the odds against coming back are a million to one, I still want to take them. You're no more dead for being frozen than you are in the grave."

"The odds are better than being buried," you agree.

"You bet your life. What're the chances of a guy who gives up his heart for a transplant?"

"Not very good."

"You're damn right. You see a guy lying there without a heart, and you're looking at one dead son-of-a-bitch, let me tell you."

Curtis Henderson is the kind of individual every movement needs if it is ever going to get off the ground. He is passionately involved in what he is doing and will fly anywhere on earth at a moment's notice to preserve a human body in the best manner possible.

He brings you up to date on what the cryonics movement has so far been able to accomplish. Hamsters have been frozen for an hour and thawed back to normal. Blood and sperm, of course, have been frozen routinely for quite some time. Corneas, skin, and bone marrow are now being frozen and preserved at the National Naval Medical Center.

Potentially the most hopeful experiment of all has been performed by a Japanese scientist, Dr. Isamu Suda, who has frozen a cat's brain for seven months and thawed it back to

a normal condition. Until this time a brain had been considered too complicated biologically to freeze and thaw without irreparable damage. Suda has proved that it isn't, and this represents a major breakthrough for the advocates of the suspension of human beings in liquid nitrogen.

The reasoning behind the whole concept of freezing goes something like this: presently we bury or cremate an individual when he is pronounced clinically dead—that is, when his heart ceases to function and his brain no longer emits any waves.

But at the moment of clinical death the human body is still biologically alive; the cells have not yet begun to deteriorate. The brain will start to go within minutes, and other organs will degenerate over a period stretching out to weeks. Rather than guaranteeing the total death of the body through burial or cremation, the argument goes, wouldn't it be better to arrest the deterioration process at the instant of clinical death? This way we could keep our friends and relatives in a state of suspension until we can cure what killed them in the first place, then thaw them back to life.

It's an intoxicating proposal, and the logic behind it is backed up with a growing body of scientific data. Pneumonia was an "incurable" disease less than fifty years ago; now it is routinely treated by the administration of penicillin. Smallpox, another major killer not terribly long ago, has been virtually eliminated as a threat to the advanced nations, and governments are relaxing their requirements for smallpox vaccinations. Some recently released statistics indicate that the vaccinations may actually have contributed to the incidence of smallpox over the years. Cancer and heart disease, our chief medical concerns today, are likely to go the way of pneumonia and smallpox during the next ten or twenty years.

Now that the technology is available, however crude at present, shouldn't we give those dying today a chance to cash in on scientific developments of the future?

Morally, too, cryonics makes extremely good sense. It might be argued that to die a so-called "natural death" is a form of suicide when one has the means of suspending biological life at his disposal? Is there any real difference between ending one's life abruptly with a bullet, or permitting oneself to go out through a process of gradual decay? Are not both a kind of self-destruction, the only real consideration being the time element? These are the questions we will all be asking ourselves in the near future, especially if later developments can offer the human race even a minimal chance of physical resurrection.

Cryonicists are awaiting the results of a new freezing method conceived by an outfit called Negative Entropy, Inc., located in Flushing, New York. Negative Entropy claims to be on the threshold of eliminating the ice-crystal problem altogether through the use of high-pressure freezing. Supposedly a type of ice is formed in the body that will not expand when crystallized at low temperatures and high pressure. If final testing proves successful, the Negative Entropy process will not require the use of cryoprotective agents like glycerine and dimethyl sulfoxide; the human body will be frozen in its natural condition.

When you speak to Bruce Cohen of Negative Entropy by telephone, he tells you that experimentation has been temporarily slowed by lack of research funds. They are trying to get a grant to continue work on the system and bring it to fruition. Right now, Negative Entropy seems to offer the best hope for a viable cryonic suspension process in the near future.

Understandably cryonicists have their eyes glued to the newspapers and scientific journals for any new developments in life-extension techniques. Recently, according to a CBS Radio news report, two operations were performed on patients who were "dead" by all legal criteria. Their hearts

had stopped and the bloodflow to their brains was blocked. The remaining blood in the brain was washed out and recirculated at 32 degrees F. while the doctors operated. Both parties were resuscitated and brought back from legal death after a full hour in the company of the Grim Reaper.

Most radical movements start off as a "fringe phenomenon" for incorrigible cultists (*any* cult will do for some), but even a few "reputable" doctors are now cautiously lending their support to cryonics. Dr. Richard Lillehei of the University of Minnesota, for example, sees no reason why we can't go beyond the freezing of organs and "suspend and thaw a whole person" within the foreseeable future.

Cost studies indicate that cryonic suspension will become no more expensive than an ordinary funeral if it is implemented on a mass scale.

Gerald Feinberg maintains that all things now considered possible—including physical immortality—will be realized well within the next two hundred years.

The first human being was frozen in 1967 (only forty years after Lindbergh crossed the Atlantic in the "Spirit of St. Louis" and two years before the first astronaut set foot on the moon), and a recent viewing showed him to be pink and ruddy, though a bit stiff around the edges. Chances are a breezy million to one that he will never rise again; unfortunately, it's a bit late for him to benefit from the advances that are bound to be made in this area.

On your way home from Henderson's, it suddenly occurs to you that you forgot to ask one very important question. You place a phone call.

"Aren't some people afraid that if they make arrangements to be frozen, others might not carry out their wishes?" you ask. "When their friends and families go, who's going to care whether or not they'll ever be brought back?"

"Well look, we trust people every day, whether we like it or not, don't we? You drive down the highway at sixty miles an hour, and you trust the guy beside you not to run you off the road, right? I guess we have to trust others to do as we ask."

"But still—after paying off an insurance policy all your life, you want to be sure you didn't throw your money away."

"It's a matter of contract. You sign a contract with a cryonics company to freeze you and bring you back as soon as they can. They don't do it and they're violating the contract. They can get sued for that."

"But who's going to press charges if there's nobody around who cares about the stiff anymore? They can defrost your remains and nobody would give a damn."

"It's going to be against the law. Defrosting somebody without bringing him back is *murder* pure and simple. They'll bring you back, don't worry about it. They'll need your space for somebody else. It costs too much money to keep people in storage forever."

Even if the day arrives when the freezing, thawing, and rejuvenation of humans is performed routinely, it will still be little more than a holding action for you, the would-be immortalist—a means of preserving life until we have learned to eliminate the causes of death. We are working on that now; one by one we are learning to cure the diseases that deprive us of life.

Some of our scientists are already beginning to tackle the most persistent disease of all—the aging process itself, which until recently has been considered as ineradicable as taxation.

2

Never Say Die

Those of you seeking immortality can take comfort in the fact that more of us are living longer than ever before.

Between 1950 and 1970 our over-sixty-five population increased 63.1 percent; more spectacularly the number of over-seventy-fives in this country almost doubled during the same twenty-year period.

Nobody has come up with any figures as to how many more of us are living beyond the age of one hundred, but isolated stories appear in the papers from time to time: the one-hundred-and-six-year-old man in San Francisco who runs around Golden Gate Park each day for exercise; the black woman in Queens, New York, somewhere between a hundred-and-ten and a hundred-and-twenty, whose mind is still sharp and clear.

Are these random exceptions, or are we on the verge of drastically pushing our average life expectancy to a level never dreamed of before?

Dr. Alex Comfort, head of the Medical Research Council Group on Aging at University College in London, estimates that we are sure to have at least "one sure way of extending vigorous life by about twenty percent" before 1990. Dr. Donald Carpenter, a physicist formerly connected with the United States Air Force Academy, considers this estimate too conservative, and maintains that the median human

lifespan will be between ninety-six and a hundred-and-twenty sometime during the 1980s.

Scientists have fairly well concluded that there is a direct correlation between longevity and a reduced, carefully balanced diet. We have determined that a sign of "aging" like leathery skin is actually a result of overexposure to the sun, and that the life of the skin can be extended by curtailing our mania for sun worship.

Plans are currently being drawn up for a registry to provide dying humans with spare body parts and an international institute to disseminate scientific knowledge globally. Upjohn and other pharmaceutical firms expect to have an anti-aging pill on the market sometime during the present decade.

The causes of aging, long considered one of the Divine Mysteries of the Universe, have now been narrowed down to several closely related theories. Gerontologists speak rather esoterically of the cross-linkage of molecules in the body, the effects of free radical agents, auto-immunity, organismic and cellular aging, gene pleiotropy, somatic mutation, genetic instability, oxidation, and blood toxins. Whatever their finer points of distinction, however, most would agree in general terms that aging is a result of chemical and physical changes within the body, which lead to its deterioration and the onset of senility. As such, it is a disease we are gradually learning how to cure.

Dr. Benjamin Frank of New York City describes aging as a decay in nuclear DNA, which leads to a deterioration in enzymes, which, in turn, alters our basic body metabolism and results in the destruction of cells.

What causes the damage to DNA and the aging process?

"There is no one cause," according to Dr. Frank. "X rays can do it. Ultraviolet rays from the sun. Free radical molecules, which attack stable molecules in the body. And we all have a built-in time bomb, a genetic inheritance which has so far determined our basic lifespan."

Dr. Frank reports that he is already succeeding in reversing the aging process by administering orally to his patients RNA, along with vitamin B, amino acids, various minerals, and sugars. He has developed his formula into a cream compound which, he claims, repairs the DNA in the cells and reduces skin wrinkling and eliminates aging or liver spots. He anticipates that in a very short time he will have his cream ready for the market in the United States. Shortly thereafter, he says, it will be possible to inject his formula into the body, drastically reversing the aging process through the reparation of damaged DNA.

Dr. Frank is a good advertisement for his own methods, appearing eight to ten years younger than his forty-nine years. He is emphatically optimistic about the future, maintaining that immortality is not only possible but inevitable.

"We will have immortality before the turn of the century," he states, "and we will be well on the road toward it before this decade is out."

"How important is cryonics?" you want to know.

"Cryonics is vital. I give those already frozen a good chance of coming back. One day—no one can say how far off it is—we will know how to repair the damage caused by imperfect freezing methods and rejuvenate the dead cells."

When you inform Dr. Frank that not even the cryonics people are that hopeful, he dismisses them with a shrug as "too pessimistic."

Would he elaborate on that view?

"Glad to. They're petty, narrow-minded people. Been ignoring my work for years."

"Why is that?"

"Envy. They realize that my efforts represent a major breakthrough in anti-aging therapy, and they're green with envy."

"But," you ask, "they're all working toward the same goal. Why don't they join you in a united effort?"

"Because it's easier to steal an idea and claim it as your own than to give credit to someone else. Everyone hates genius and originality."

"Why do you say that?"

"Because they've ignored my work for years. They go out of their way deliberately to ignore me."

"Why?"

"They're trying to claim a breakthrough of their own."

"You mean the field is already big enough to have its own conspiracy?"

"I'll beat them all in the end, don't worry about that. Everyone will acknowledge the work I've done before I'm through."

At last report, Dr. Frank had moved to Portugal to establish a clinic where he can continue his work.

Who are some of the "suspect" scientists Dr. Frank alludes to, and what progress have they made?

Alex Comfort is one. He thinks Dr. Frank's claims are premature. Referring to Frank's "time bomb" as the "inner clock," Comfort is primarily concerned about the extension of adult vigor, rather than the prolongation of old age, which much of our research has been geared for. He claims that the aging process can be slowed down and eventually reversed by diet and inexpensive medication.

Dr. Leroy Duncan of the National Institute of Health in Bethesda, Maryland, also talks about the "intrinsic aging process," and looks forward to the day when we will at least be able to slow it down, if not reverse it altogether.

Dr. Robert Prehoda, a specialist in technology, expects anti-aging treatments to provide the elderly with the mental flexibility of youth in the foreseeable future. According to Prehoda, a pill will be available by 1985 that will neutralize "free radical" molecules that multiply and attack stable molecules in the body. The pills, composed of vitamin E and other chemical anti-oxidants, should retail at no more than thirty cents a day.

Another theory holds that molecules in the body "link together" and cease functioning as they become frozen in large clusters. This condition can be reversed, says Prehoda, by the injection of foreign enzymes from soil bacteria. The price today would run about $1000 to $1500 annually per person, but additional research and mass production could bring it down considerably.

According to an older theory, originally promoted by French biologist Alexis Carrel, aging is a result of the accumulation of toxins in the blood. Treatment here is a bit more complicated, involving the separation of red cells from body plasma, which would then be replaced with a synthetic plasma. Again, cost and danger could be reduced by extensive research and universal demand.

Some of the most advanced studies on aging are now being done by Denham Harman, a physician and chemist at the University of Nebraska, and John Bjorksten, a biochemist who has been working on an anti-aging drug for Upjohn. Harman favors the theory that active molecular fragments produced by ultraviolet rays eventually lead to senility, while Bjorksten holds that the cross-linkage of large molecules which then grow ineffective is the main cause of aging. It is not inconceivable that, based on research being done by scientists like Harman and Bjorksten, some sort of "youth pill" will be ready for the market by the end of the 1970s.

In addition to the physical and chemical changes occurring in the body, you are happy to hear that theories abound regarding the effects of mental attitudes toward aging. Patrick M. McGardy, in his book *The Youth Doctors,* talks about the remarkable alterations in physical appearance that have been brought about through a change in mental outlook. He admits that it sounds a bit like the old "Power of Positive Thinking" syndrome, but his research shows that individuals who, first of all, want with a fiery determination to remain young, and second, truly believe

that it is possible to control bodily functions by willpower, have literally been able to remove years from their own lives—at least, on the surface.

This notion is supported by the latest experiments in "biofeedback," a word that is another fairly recent addition to the English language. In controlled laboratory situations, people are able to regulate the rate of their bloodflow, pulse, blood pressure, and skin temperature, and the quality of their brainwaves. All this is accomplished by the voluntary transmission of brain impulses to selected areas of the body—the power of mind over matter, so to speak. Eventually, the theory goes, people suffering from heart disease, ulcers, hypertension, asthma, and other ailments will be able to treat themselves.

Through the use of biofeedback techniques, we can all learn to control the dilation and constriction of blood vessels that leads to hardening of the arteria. We may be able to regulate the hypertension and emotional strain that play a prominent role in the aging process. Do-it-yourself preventive medicine can become a reality if we learn to recognize certain symptoms as they arise and deal with them mentally, according to Gay Luce and Erik Peper, experts in the field.

In other experiments performed at the Menninger Foundation in Topeka, Kansas, individuals are learning to eliminate insomnia and chronic headaches by mental control over involuntary bodily functions. Dr. Elmer E. Green, director of the Foundation, speculates that cancer and other diseases will eventually be treated by the patient himself. We will learn to regulate our bloodflow and bodily temperature in such a way as to correct imbalances in our biological systems.

Dr. Green maintains that 50 to 80 percent of all illnesses are either entirely or partially psychosomatic, usually originating in muscle tension caused by emotional strain. His theories on mental self-regulation are based on the

premise that there is a direct cause-effect relationship between mind and body, and proper mental attitudes can change body chemistry.

He advocates teaching children at a ninth-grade level that they are primarily responsible for their future health; properly trained, they will become more resistant to emotional stress in later life.

Predictably, the AMA is already launching a counter-attack.

One objection you raise against practitioners like Dr. Frank, who claims to be getting results already through his own medication, relates to how much of their success can be attributed to psychological forces. If biofeedback and other mind-over-matter concepts are valid, might not the aging reversals be a result of mental factors rather than so-called anti-aging drugs? Is there any way of measuring changes due to medication and similar changes resulting from the patient's *belief* that the medication will work? How do we know that these people aren't really *psyching* themselves into looking and feeling younger?

The answer, say those involved in such research, is that the drugs are working even on those who remain skeptical throughout the entire treatment; if anything, the psychology of these patients is working *against* them. This is a variable that is almost impossible to measure. If someone says he is skeptical, does he actually believe subconsciously? If he claims to believe, does he really harbor secret doubts?

At best, however, the challenge is merely academic. Even a deceleration in aging as a result of psychology rather than medication only reinforces the theories of the biofeedback pioneers. It indicates that extended youth can be achieved by mental powers. The goal for the individual is the same in either case; eventually we will know more about the methods used to attain it.

3

A Clone of Your Own or, There's a Cyborg in Your Future

Cloning is another technique by which our immortality seekers hope to provide us with physical life eternal. Of all the methods man has yet tinkered with in his quest to stay alive as long as possible, cloning is the most startling—and potentially horrifying—of all. Experiments have already been performed on lower life-forms that indicate it may become a very real possibility in the not-so-distant future.

A clone may be described as a reproduction of a biological system, which is identical to the original in every detail. The most advanced research is now being done in England, where frogs have been cloned by zoologist Dr. John Gurdon, and additional work on cattle, sheep, and horses is in progress. Dr. James D. Watson, credited with the discovery of DNA, maintains that the technological problems of human cloning have been virtually overcome.

The social, political, and moral ramifications of cloning, on the other hand, have not even been discussed at this point, and pioneers in the field are hesitant to progress much further. It was only a few years back that an Italian scientist conceived a human fetus in his laboratory, and decided to destroy it after a short time because of the furor it would create among the public. It is probably safe to assume that anything possible will eventually be attempted,

and somewhere, sometime, somebody will clone a human being and set off storms of protest around the world.

Briefly, a clone is created by taking cell tissue from any part of the body and implanting it in an unfertilized ovum whose nucleus has been destroyed with ultraviolet radiation. It doesn't matter where the ovum comes from, so long as the nucleus containing the ovum's genetic makeup is eliminated. All the cell tissue from the donor contains a full complement of chromosomes, and after a normal gestation period an exact replica of the donor is formed.

The idea of producing carbon copies of ourselves at this stage of our philosophical and emotional development is exhilarating and terrifying at the same time. Cloning offers an almost endless variety of possibilities for the human race; it literally staggers the imagination to try to visualize them all.

The most important question for those interested in physical immortality is whether human cloning, should it ever come to pass, represents true immortality or not. While it may one day be possible to create an exact biological reproduction of oneself, this new self comes into the world with a clean slate: it does not inherit the consciousness of the original.

The clone is nothing more or less than the "child" of the donor—a child with the genetic makeup of a *single* parent, to be sure, but nevertheless a separate individual without the memory bank or psychology of the parent. Besides being a more efficient method of childbirth, cloning assures that the child is born without defects and is literally a "chip off the old block" (actually a miniature of the old block).

Fertilization of life outside the body (ectogenesis) has been suggested as a safer and more efficient method of childbirth. R.G. Edwards and P.S. Steptoe of England have done advanced work in this area, and consider *in vitro* (test-tube) fertilization of the ovum all but routine by now.

For the first time in history, women can be free of the

"tyranny of pregnancy" and still enjoy motherhood. By controlling or restructuring the genes and nurturing a fetus in the laboratory, we can create offspring who are free of all mental and physical defects. Parents have long yearned to be able to determine the sex of their children; why not the physical and mental attributes as well? Our passion for sticking children with our own names, for identifying similarities in facial features when the infant has barely been wiped clean of afterbirth, for dictating careers and life-styles to our children as they grow up, for trying to mold them into our image of what we want them to be, testifies to the towering egotism behind most acts of childbirth.

We all speak of what we would like to do "if we had our lives to live over again." What could be more satisfying than to have another self—a clone of one's own—to do more than merely "carry on the family name," actually to carry one's ego and pass it along forever.

To make possible such a psychically as well as physically identical clone, cloning enthusiasts are attempting to solve the problem of memory reproduction.

"What you say is true: clones will merely be physical reproductions. The memory can't be duplicated. For this reason, they'll probably be created to supply us with body parts."

"Body parts?"

"Righto. We can't expect our internal organs to last forever, can we? Our hearts and lungs have a nasty way of running down on us after a while."

"I'm afraid I still don't see the connection."

"It's perfectly simple. Clones will supply us with *spares*, don't you see? When the old ticker starts to self-destruct, it's a simple question of transplanting a newer model from one of our clones. This solves the supply problem and it also eliminates the rejection problems that exist with someone *else's* organs. Two birds with one clone."

"Now wait a second. These are human beings. *You can't*

just rip out their hearts and lungs as though they were human junkyards!"

"Well that's a rather *awkward* way of phrasing it, if you don't mind my saying so."

"But clones are people, goddamnit. You're talking about them as though they were a race of mechanical slaves."

"Perhaps we should end this discussion now. You seem to be getting a bit overwrought."

"But you still haven't answered me. How can you talk about using real people this way?"

"Don't worry about it. We'll find some way to solve the problem."

The next cloning fan you talk to tries an argument that runs something like this:

"Perhaps we'll transplant our own brains *into* the clones as they develop. This way we can maintain our individuality in fresh new bodies when we need them."

"I think I'm beginning to get a bit overwrought again."

"Look: it's a simple question of *plumbing.* When you're pushing seventy or so and the old body starts to wear out, we take our your brain and put it in a fifteen- or twenty-year-old replica of yourself."

"P-plumbing?"

"Righto. After all, scientists have already experimented with monkeys, and they estimate it's only a matter of time before they can hook up all the nerves and arteries properly."

"Let me ask you something very calmly and logically. What about the clone? Is he just going to sit there and let you carve out his brain, or will it require a platoon of Green Berets to hold him down so his 'father' can live forever in his body?"

"That shouldn't be a major problem. Perhaps we'll take *his* brain and put it in a *younger* clone. This seems more humane; gives everyone a chance to benefit equally."

"But suppose, just *suppose* somebody has ten clones made for himself, and *suppose* none of them want to go through with the transplants? They're all just like the old man, you see, and they can't stand his guts. What happens then if they refuse to grant him immortality?"

"I wouldn't be so pessimistic if I were you. If everyone had your outlook on life, my friend, we'd still be chewing bones in the Stone Age."

At this point you're on the verge of tears. Get a grip on yourself, hero; you're an adult. If you insist on going around interviewing Buckminster Fuller freaks, you've got to anticipate this sort of thing. You can't expect science fiction writers, architectural visionaries, and biological engineers to concern themselves with trivia such as morality and human relations.

Professional futurists are committed to the broad view, to universal solutions, which transcend the human scale. If people get in the way of their grand schemes, well, they'll just have to get in step with the new tempo. Progress can't wait for a bunch of idiots to decide what's good for them.

"If the world had listened to Bucky forty years ago, it wouldn't be in the mess it's in today."

"Don't get me wrong now. I *like* Fuller. I just don't think . . ."

"He was talking about recycling before most of us were born, and it's taken till now for the rest of us to realize it's a good thing."

"I realize that. I'm all in favor . . ."

"Weather control, communication satellites, domed cities—he anticipated all of them a full generation ago."

"I agree, for Christ's sake. All I'm trying to say is that you can't talk about clones as though they were prize cattle you can dispose of at will."

"Society has always rejected its geniuses, its men of vision and creativity."

"Of course. But no matter how great a visionary someone may be, he's still not infallible."

Now you've done it. You're being stared at as though you came from another planet.

"You're not suggesting that we turn the fate of the entire world over to a single man, are you? *Are you?"*

There is also the possibility that we will be able to clone our own body parts. Instead of creating an entire duplicate, we might grow additional organs for our bodies. This alternative makes better sense and has far less chilling consequences than the cloning of whole human beings.

In addition, cloning techniques *are* likely to be used in connection with livestock—the replication of prize bulls, racehorses, sheep, chickens, etc. It can provide an endless source of meat and meat by-products for the human race. If cloning becomes a reality, there will be no limit to the amount of food we will be able to produce. Scarcity will be truly a thing of the past.

The prospect of cloning inevitably elicits fears, which may eventually be known as the Clonal Hitler Scare. And with good reason. The mere mention of genetic engineering conjures visions of mad scientists employed by a totalitarian government straight out of *Brave New World,* manufacturing zombilike slaves to serve the state.

Suppose Hitler or Stalin had managed to discover the secrets of cloning? What would the world be like with a hundred carbon-copy Mussolinis waiting in line to take over from Il Duce? But, as unnerving as it is to think of a hundred look-alike Hitlers, Stalins, and Mussolinis waiting in the wings, there is really no guarantee that they would turn out like the old man. Hitler wasn't a tyrant because of the way he wore a mustache or parted his hair. His unique psychological background developed him into the monster he was. Presumably, different circumstances and environment would shape his clones into separate individual

entities, with as good a chance of being more humane than the original as any other child would have.

The greatest danger of human cloning would seem to be the inbreeding effect it would have on clonal offspring. The human race has evolved and grown more durable and resistant to diseases because of the crossbreeding of peoples and races. The random mixture of genes and chromosomes from various sections of the world has resulted in a healthier, more intelligent species of man.

The constant repetition of the same genetic inheritance could deprive the human race of the mutational lottery that has strengthened our species over the centuries. It may eventually be possible to check certain defects in the gestation period—physical deformities, mental retardation—but this is a different thing entirely from the continual replication of the same genetic characteristics.

It is possible, of course, that a dictatorial regime somewhere on earth will experiment with cloning in an attempt to increase its control over society. But this is a danger that people face with every new invention, every new piece of weaponry that comes into existence.

For those of you who find cloning in any form a bit much for the stomach, there are less exotic techniques now being developed that may eventually provide us with immortality.

The creation of cyborgs is one of them.

While the word *cyborg* is straight out of science fiction, the concept is not as drastic as the name implies. The age of the cyborg—part flesh and blood, part machine—is already here. Dr. E. Converse Peirce, Professor of Hyperbaric Surgery at Mount Sinai Medical Center in New York, has developed a portable artificial lung to aid people with "incurable" respiratory diseases—emphysema, "black lung," one lung with only limited function, chronic asthma, and so on. The device is presently being tested on dogs, and Dr.

Peirce maintains that it should be available for human use in less than five years.

Dr. Adrian Kantrowitz, the well-known pioneer in heart transplant surgery, implanted a permanent mechanical booster pump in a patient's heart in August 1971. "If the patient's vital signs continue to improve, this will have been the first successful implant of a permanent auxiliary heart pump," according to a spokesman for Dr. Kantrowitz. The booster, six inches long and slightly more than an inch wide, will take over a large portion of the pumping load of the left ventricle, increasing the bloodflow to the tissue of the heart and throughout the entire body. Kantrowitz is also the developer of the so-called pacemaker, another artificial mechanism designed to keep the heart beating regularly.

Kidney transplants are now being performed at the rate of 1500 a year, and several thousand additional people are having their lives extended by artificial kidney machines, which remove poisons from the blood after their own kidneys cease to function properly.

Artificial hearts, lungs, kidneys, and eventually other internal organs, will prove to be more effective and more durable than human parts say the experts. If this is so, then the demand will be for mass production of mechanical organs rather than the cloning of flesh-and-blood replacements.

In addition to cyborgs, cloning, transplants, anti-aging treatments, biofeedback, and cryonics, several other immortalist techniques have been suggested.

For years science fiction writers have been talking about weightlessness and reduced gravity as a means of combating wear and tear on the body. The moon, with roughly one-sixth the gravitational pull of earth, would afford man a longer lifespan by reducing the physical forces playing on the body. The mathematics has already been worked out, and every time we send astronauts into space, someone publishes a table showing they have aged more slowly

because of weightlessness. Periodic visits to antigravity chambers—perhaps offered as a health feature at the local Y or athletic club—would serve a similar purpose on earth (though there is still much debate about whether this is scientifically feasible or not). There is also the possibility that something approaching weightlessness can be achieved through the construction of underwater cities.

Another method of fighting the aging process is currently being investigated in the Soviet Union. Several years back, a fifteen-year-old dog, exhibiting signs of advanced senility, was put to sleep for three months. At the end of this period the dog was awakened and found to be rejuvenated; he outlived his peers by several years.

The same technique is being applied to human beings. In this country, studies conducted by Dr. Philip M. Tiller of the School of Medicine at Louisiana State University indicate that elderly persons who sleep eight hours at night and nap during the day are virtually free of the symptoms usually identified with old age. The participants in the study, all over sixty, were observed for more than twenty years, and Dr. Tiller concludes that anxiety, fatigue, dizziness, muscle and skeletal pains, headaches, and other traits of aging are a result of inadequate sleep.

It now seems apparent that some form of human hibernation will be added to the list of methods by which we are attempting to conquer death. There is, of course, the question of *trusting* others to wake us when we want, and not treat us to a longer nap than anticipated—say, fifty years instead of two weeks.

Historical as well as reliable scientific evidence suggests another—fairly prosaic—aid in our quest for longer life.

Because of food shortages in Sweden during World War II, the food consumption of the average Swede was severely reduced. Fortunately, a great variety of food remained available, providing for most of the people a well-balanced

though drastically limited diet. Statistics reveal that the mortality rate dropped significantly for this period, then rose to the old level after the war, when food was once again abundant. Since this was not a controlled experiment, however, there is no way of knowing whether or not other factors may have played a role.

Dr. Roy L. Walford of the U.C.L.A. School of Medicine maintains that our immunological system deteriorates during the aging process, and this condition can be checked by lower food consumption. In a controlled laboratory situation in the United States, mice have been put on a sharply reduced but carefully balanced diet, and have been found to live longer and to be less susceptible to cancer than their well-fed cousins. Evidently the lower food intake affected the chemistry of their immunological systems, which protect them from infections. While we can assume that the jump from mice to men is a substantial one, Dr. Walford maintains that humans may be wise to eat less, starting when they are very young.

Telling people to eat less so they might live longer may well be like asking them to give up sex for the same reason.

"You mean all I've got to do to live forever is stop eating?"

"That's right."

"So who needs it?"

"Don't you want to be immortal?"

"Sure. But there's a limit, you know what I mean?"

"Not exactly."

"You're no different than the priests. They tell us to stop having fun so we can get to heaven. Now you come along and say we can have heaven on earth if only we stop eating. So where's the bargain?"

"The priests want you to give up *everything.* With us you may have to eat less, but we're offering you the chance to sleep *more* at the same time."

"I'd rather sleep *less* and eat *more.*"

"I'm sorry. It has to be our way or not at all."

"I'd rather eat myself to death."

Temperature, too, has been found to have a significant influence on the aging process. In experiments performed at U.C.L.A., the life expectancy of fish has been extended by keeping them in water several degrees lower than normal for them. There is no question that this astounding piece of information will trigger a mad stampede away from the Mediterranean toward frosty Antarctica. Land values on our polar ice floes are destined to skyrocket while the Riviera, Virgin Islands, and other sun-soaked paradises are abandoned and turned into festering slums.

Then again, the prospect of shivering our collective ass off for the sake of an extra ten years is one the human race is likely to pass up.

"What you're telling me, in other words, is that I have to turn myself into a mouse or a fish in order to become immortal."

"That's not exactly what I said."

"Either that or a disembodied spirit who isn't affected by gravity."

"That's not right either."

"Or a polar bear that goes to sleep six months a year."

"You're grossly exaggerating . . ."

"Or a starving Armenian who lives on pumpkin seeds and sassafras tea."

"Now hold on a minute."

"A hungry mouse who swims like a fish, floats like a feather, and sleeps half his life away."

"You want to live forever, don't you?"

"Live? You call that living?"

"You're the one who thought cloning was so terrible in the first place. I'm only offering you some options."

"Maybe cloning isn't so bad after all."

4

Immortality *Now?*

If it is true, as the evidence seems to indicate, that we are on the verge of extending life considerably in the foreseeable future and—eventually—ushering in the age of physical immortality, we shall all have to ask ourselves whether we are prepared to deal with such a development. However, it might be better if we discussed the situation quietly in small gatherings if we hope to resolve it one way or another.

The prospect of physical immortality raises questions that cross over into many different areas, and somehow we will have to find a way of coming up with answers. The ZPG (Zero Population Growth) people will be concerned about the specter of overpopulation. Sixty-six billion humans have already lived on this planet, 3.5 billion of whom are still alive and kicking.

Where are we supposed to put every selfish bastard who refuses to die?

Ecologists will surely spend many sleepless nights worrying about the delicate balance between nature and technology. More people could mean more population, more construction, more consumption, more machines, and less room for trees and flowers, not to mention people.

Will an immortalist society result in the earth's becoming the largest garbage pail in the universe?

The religious consequences of immortality are apt to be

monumental. Who needs faith in harps and angels when the hereafter is right now?

Extended life is likely to add an extra dimension to an already complicated and constantly evolving social structure. Divorce, to name a single item, is steadily rising. If couples find it difficult to stay together for thirty or forty years today, how can they possibly manage to stick it out for an indeterminate period?

There will be socioeconomic problems concerning our pension and mandatory retirement policies. It's bad enough now when we force people who are still eager and able to work to vegetate for their remaining five or ten years. What happens when the average life expectancy is ninety or a hundred instead of seventy? Then again, if people *do* work indefinitely, what effect will less turnover in industry have on the unemployment rate?

Then there is the $64,000 question:

What is death?

This is already a more or less moot question. It becomes even more difficult to answer in the case of someone kept *biologically* alive in liquid nitrogen. Inheritance and insurance law will have to be rewritten to cover those in a state of suspended animation.

How does an individual resuscitated after fifty or sixty years adapt to his new world? Talk about future shock; a resurrected adult will be an ignorant babe compared to a five-year-old.

These are just a few of the questions that come to mind immediately, and the reader will doubtless come up with some of his own after thinking about the situation for a while. This time around, however, we may be well advised to keep the solutions out of the hands of professional experts and think-tank intellectuals.

Unfortunately, the trend in recent years has been to assemble "experts" from far and wide, provide them with a few million dollars over a two- or three-year period, then sit

back and hope their collective effort will save the world from annihilation for another decade or two. What usually ensues is that each "blue-ribbon committee" splits into a dozen warring factions within a week, with each faction issuing a separate report disagreeing completely with all the others.

A Presidential panel composed of spokesmen from Z.P.G., ecologists, clergymen, sociologists, psychiatrists, lawyers, cryonicists, science fiction writers, and biochemists could be the greatest circus in history. The idea of all these people sitting around the same table trying to come to terms on anything is too much for the heart to stand:

"How about overpopulation?"

"In any discussion of immortality, pollution must take priority."

"Have faith in God, my children. The ways of the Almighty are wondrous and wise."

"Faith, shmaith. What we need here is a good, hard analysis of the social relevance of . . ."

"None of you are saying anything *meaningful.* Has anyone spoken of *alienation* yet?"

"It seems to me you are all psychotic. You in particular, Reverend, have a schizoid separation of. . . ."

"Can we have a *freeze* on name-calling, please?"

"Freezing is not the answer. What we need is a global *dome,* a giant infrastructure superfracture. . . ."

"I think somebody should put you under a dome, you weird little space freak!"

"Gentlemen, please! Can we have some order?"

"Gentlemen is a *sexist* word. I, for one, consider myself to be a gentle*person.*"

"I think you're all a bunch of motherfucking *racists!*"

If we hope to avoid the above scenario, perhaps we should proceed to a calm and somewhat muted discussion of some of the issues we have just mentioned. These are

highly controversial topics we are about to grapple with, and the emotions may run a bit high from time to time.

With a little bit of luck, however, we might be able to get through it all with a minimum of name-calling—and hardly any violence at all.

5

Ashes to Ashes, Dust to Dust

The AMA is only one institution that is likely to diminish in stature in an immortalist society. Organized religion is another. The power of established religion up to the present has certainly been bound up in its monopoly on immortality.

Religion was a simple way of explaining the various natural phenomena our earliest ancestors found too baffling to cope with on a rational basis: thunder, lightning, storms, earthquakes, eclipses—all of them must have seemed mind-boggling to a species that had yet to invent a wheel or control fire. But the most irrational and inevitable natural disaster—one that confronted every living person—persists even today, even as science has brought under control or explained other natural phenomena. It is the fear of death that is the prime impetus behind our modern religions.

If oblivion beyond the grave was too horrifying to contemplate, some kind of religion was the perfect answer to that fear. Life forever in the clouds, Armageddon, miracles, walking on water, resurrecting the dead, virgin births, blessed trinities, and spiritual life eternal were more acceptable alternatives to the prospect of festering in the ground.

For years our spiritual leaders have been exhorting us to go with God/Allah/Yahweh, holding out to us the prospect of spending eternity in such exalted company. Anyone who promised to show us the way to eternal life and happiness was guaranteed a fair hearing.

"I am the Way. Come follow me."

And the human race did—into Crusades and Inquisitions and other flamboyant escapades. The religions most adept at exploiting this apparently innate human fear have, naturally enough, grown fattest over the centuries.

Fear is a profitable commodity.

To get to Heaven you had to pay your dues. Like any product in demand, there was a price tag attached. Hucksters of all denominations, effectively attired in robes, miters, scepters, yarmulkes, and loincloths, have been hawking their wares from pulpits and soapboxes throughout the long sweep of human history:

"Step this way. Go right inside. Take a peek at the greatest show on earth."

"What's going on in there?"

"Happiness, love, cotton candy, we got it all, sweetheart. Just step right in. You want to live forever? We got that, too."

"Is it going to cost me anything?"

Thunder and lightning explode all around. Torrential rains pound the globe for forty days and nights. A horrendous cataclysm rends the earth.

"Cost, did you say? Of course it costs! If you're looking for a free meal, the Salvation Army's down the block."

"Yes, your Holiness, your Excellency, your Pontiff, sir. Forgive me for asking, but . . . how much?"

"How much is your life worth?"

"My life? Why . . . I don't know."

"It's either the worms or us, baby. Make up your mind."

"The worms! Oh, my God, no! Anything but that. Name your price. I'll pay anything."

"Well. You can get down on your knees for starters."

Every large organization has to subdivide sooner or later for efficiency's sake, so it came to pass that the mortuary department was created as the secular arm of organized

religion. After paying dues all your life, it somehow didn't seem right to just cash in your chips at the end without a little party—a dinner, perhaps, or a get-together for friends and relatives.

After all, you pay your dues to a company for fifty years or so, and they give you a watch when you retire. *Final* retirement ought to be worth more than a lousy watch.

Every first-class shindig requires the services of a professional caterer, someone finely trained in the etiquette of manufactured emotion. It therefore stands to reason that one's farewell party should be catered by an expert in his field, someone who has made a career in the subtleties of death and human misery, a professional who has dedicated his life to death, so to speak.

The first crude practitioners in this field were called "undertakers." Over the centuries they honed their skills to such a fine edge that they have been rewarded with the sobriquet *mortuary scientists.*

You can now take your bachelor's in mortuary science, and it may well be possible to do graduate work in the field.

As in every thriving profession, it is mandatory to establish a mystique to enhance the value and importance of the services you render. In other words, you've got to jazz up your product a bit lest the multitudes develop the idea your talents are expendable. One of the most effective ways of doing this is to create a language unique to your chosen occupation. We have, for example, *bureaucratese, journalese, academese, medicalese,* and *militarese,* to name a few. Without them the public might get the notion that bureaucrats, yellow journalists, college professors, medical specialists, and generals are a pack of overpriced mountebanks. If a doctor diagnoses your illness as "a cold," you're apt to call him a schmuck. Your sister-in-law can tell you the same thing for nothing. If he says you've got "inflamed pituitary glands," however, you're ready to pay any outrageous fee he charges for an office visit.

Mortuary science is no exception to this rule. Instead of corpses, we have "loved ones" or "the recently departed." We also have "sympathy cards," "slumber rooms," "viewings," "unveilings," "slumber wagons," "eternal flames," and so on. Mortuary experts "wake" our dead for us, apparently to remind us that a "new day" awaits them when the party's over. To make sure "the deceased" look their best in "the hereafter," they are dolled up in their finest linens and their cheeks touched up with a bit of color. It is customary to make suitable comments about their cosmetic skills in the slumber room, and to avoid honesty at all costs. Can you imagine the effect *honesty* would have at a wake?

"Doesn't Tony look lifelike?"

"He looks real."

"He looks like he could get up and walk."

"He looks like wax. I never seen a stiff yet what didn't look like wax."

It just wouldn't do. You'd wind up putting a damper on the affair for everybody present. No one likes a spoilsport.

When the morticians have completed their handiwork, it is time to hand the deceased over to the spiritual wing of the industry. You've paid your dues with scraped knees and cold cash, now it's time to get your reward. You've waited a long time for this and finally it's yours: *Immortality.*

If our search for the proverbial fountain of youth has led us into the clutches of quacks and charlatans in the past, it becomes more difficult to separate fact from fancy in an age of sophisticated technology and experimentation. This quest for physical immortality is beginning to put many people in direct conflict with their religious authorities.

How does one square a Judeo-Christian ethic based on mortification of the flesh and the denigration of worldly pleasures with a desire to live on earth as long as possible—forever, if it can be done? Religious leaders have been

teaching their various flocks for centuries that this earthly "vale of tears" is merely a resting place, a testing ground, a preparation for a spiritual paradise in another dimension.

From what we've seen, religious authorities are not going to relinquish their power without a last-ditch fight. They are ever on the defensive for any new challenge to their disintegrating kingdom.

We are sure to see a world convention of priests, rabbis, gurus, and mortuary scientists sometime within the next few years to discuss anti-aging, cryonics, and other subversive, death-defying research:

"Business is bad."

"So what else is new? We're in the middle of a major depression with no end in sight."

"People just aren't dying as fast as they used to. I remember the old days when they dropped like flies in the street."

"A new germ or virus wiped out entire societies overnight. Now they've got all sorts of defenses: serums, pills, balanced diets, you name it."

"Times have changed. The question is: "What're we going to do about it? It's sink or swim for us."

"I don't see how any civilized government can allow an entire industry to go down the drain. It increases unemployment and puts more people on the welfare rolls, and that's bad politics in an election year, no matter how you slice it."

"We've served the people well over the years, and now they owe us a little something in return. If they can cough up loans for Lockheed to keep them in business, I say we're entitled to the same consideration."

"Your Holiness, I think you've hit the nail right on the head. I move we draw up a list of demands and present them to the United Nations."

"I think we should pray for divine guidance in this matter."

"Pray, shmay. What we need right now is direct action. *Fast.*"

No doubt there will be some political skirmishing before it's all over. One can visualize the Presidential campaign of 1984 being fought over the issue of physical-versus-spiritual immortality. One faction will be beseeching government on bended knee (and with the power of the pocketbook) to legislate against this barbaric outrage, which denies the existence of God Almighty; and the opposition will be clamoring to have burial and cremation outlawed as murder.

Politics being what it is, a compromise will be reached: immortality will be permitted, but the President will appoint a board of rabbis, priests, ministers, morticians, and scientists to regulate the number of people to be frozen. To be sure, Holy Rollers, fakirs, theosophists, Muslims, and whirling dervishes will all be fighting for representation, denouncing the government for religious persecution.

It should be one hell of a ball game.

6

A Square Yard for Every Human

Those seeking immortality will also have to deal with the good Reverend Thomas Robert Malthus, who presented the world with his famous formula back in 1798. He told us that population growth increases geometrically while growth in food production increases arithmetically—which means that any increase in population is bound to result in dwindling food supplies, hunger, and starvation.

Doomsday prophets blind themselves totally to history when they quote Malthus today, as many of them do. In Malthus' own lifetime his native England increased its population fivefold while simultaneously enjoying a period of economic growth and prosperity. The United States' population multiplied ten times while it became a major importer of labor and exporter of food. More recently the island city of Hong Kong, experiencing the fastest population growth on earth during the 1960s, has become a bustling economic focal point in the Far East.

Conversely Ireland and Sicily, losing people steadily from the beginning of the century, are among the poorest countries in the West.

Overpopulation is usually given as a prime reason for China's inability to raise its standard of living appreciably. According to the doomsday people, it is impossible for food production to keep pace with China's burgeoning population. What these prognosticators overlook is that China's population density is roughly one-third that of England and one-fifth that of Holland, which is importing labor from southern Europe to keep pace with an expanding labor market.

Despite these developments, it seems the old prophets are a long time dying. Picking up where Malthus left off, Julian Huxley warned the world in 1950 that there would be 3 billion people on earth by 2000 A.D.—more, according to his calculations, than this tiny globe could possibly support. His crystal ball must have been slightly cracked the day he made that projection. That figure was reached almost forty years ahead of schedule, and the general standard of living has continued to rise with each passing year.

It is scarcely worth repeating the ominous predictions of doom-sayers. There will be only one square yard for every person by the year 2500, they claim. We cannot feed the hordes alive today, let alone a race of Super-Methuselas. We are presently increasing our numbers by 1 million a week. The United Nations estimates that between 5.4 and 7.5 billion people (give or take a few decimal points) will be romping about the earth by 2000 A.D.

Julian Huxley returned in the early 1970s with something called "Blueprint for Survival," demanding among other things that England reduce its population by 25 million and return to an eighteenth-century agricultural society. Burgeoning population and the resulting imminent starvation now loom as the foremost objections to the prospect of physical immortality.

Another leading population alarmist is Dr. Paul R. Ehrlich, professor of biology at Stanford University. In 1964 he stated that India's newly launched vasectomy program was doomed to failure because of the reluctance of the population as well as the technical problems involved.

As it turned out, the program was declared a huge success by the end of the decade; in fact, it will be expanded during the next few years.

In 1969 Ehrlich declared in *The Population Bomb* that it was "ignorant and irresponsible" to expect increased food production through underwater farming. Scarcely one year later, advances in marine agriculture contributed to an enormous growth in food production throughout Asia.

In the same book Ehrlich told us that "hundreds of millions of people are going to starve to death in spite of any crash foreign aid programs," and nothing can now "prevent a substantial increase in the world deathrate. . . ." After stating that hardly anybody will be left on earth by the end of the century, he then predicted that by 2800 A.D. the population of earth will be housed in a *two-thousand-story apartment house that covers the entire planet,* no less.

Immortality seekers can take great delight in examining the record of the brothers Paddock, Paul and William, who wrote a book called *Famine—1975.* In it they predicted that India would be ravaged by famines as early as 1970 or 1971, definitely by 1972 or 1973, and that most of the population would be wiped out by 1975. Nothing could be done to avert it.

Fortunately not enough Indians read the book, for they brazenly managed to develop a hardier wheat strain leading to a bumper crop shortly after the Paddocks' book was published. It's true that the development of hybrids per se does not ensure that the food will be distributed equally among those who need it. Tacky problems such as elitist rule, warfare, caste conflicts, and so on, also enter the picture. But the point is: the *potential* for solving hunger problems has come into existence in the midst of growing population, and this puts the lie to doomsday projections based on absolute formulas. Prior to the outbreak of open warfare between India and Pakistan, both those countries

were able to talk about the possibility of exporting rice and wheat.

You can also fondly recall the Machine Scare of the early 1960s, according to which we were entering an age of Creeping Mechanization destined to drive battalions of American blue-collar workers to the welfare rolls. By 1966, it seemed, the unemployment rate would make the Depression of the 1930s look bullish by comparison, and computerized robots would be prancing about the countryside doing everything from repairing faulty carburators to boiling three-minute eggs in roadside diners.

Then 1966 passed into history. Human automobile mechanics were still fleecing the public; flesh-and-blood plumbers and electricians were moving into posh suburban neighborhoods formerly inhabited primarily by doctors, politicians, and other racketeers; hash slingers across the nation had been unionized and commanded wages that turned insurance executives green with envy. Machines, far from putting the American work force on relief, had created entire new industries and thousands of jobs that never existed before.

Immortality seekers, whether they like it or not, are virtually forced to take their stand with the Buckminster Fuller crusaders. Certainly no one has been as delightfully contemptuous as Fuller in dismissing the doomsday prophets. He has earned the everlasting enmity of ZPG enthusiasts by claiming that he could take the entire population of earth today and provide everyone with decent housing and adequate privacy on the islands of Japan.

His plan calls for the erection of a mile-high apartment complex, with each unit self-contained for power, sewage, and a recycled water supply, and capable of being separated from the complex and used for transportation. In one fell swoop he solves the housing shortage and the parking and pollution problems.

"You mean my choices are limited to either Ehrlich or Fuller?"

"That's about what it comes down to, sweetheart."

"Suppose I don't like either one of them?"

"You've got to make up your mind. There aren't that many ball games in town."

"But suppose I don't like architects, especially ones who want to stick me in a building that reaches above the clouds. Maybe I'm afraid of heights. Did you ever think of that?"

"Look. Do you want to live forever or not?"

"Why can't I live forever in a split-level ranch or a two-family house in Brooklyn?"

"Because it's going to be too crowded on the ground. From now on everything is *up.* The ground is *Doomsville.* Forget it."

"I'll compromise. I'll move into a two-story duplex in South Dakota. That's as high as I'll go."

"You're wasting my time."

"*Five* stories and that's it!"

"You've got yourself a deal."

Another unbridled optimist, when it comes to the benefits of an immortalist society, is Iranian-born novelist and essayist F.M. Esfandiary, who teaches a course on futurism at the New School for Social Research in New York City. His first nonfiction book, *Optimism One* (naturally enough), was simultaneously endorsed by Dr. Glen Seaborg, former chairman of the U.S. Atomic Energy Commission, and a reviewer for the *Village Voice.*

Esfandiary talks casually about physical immortality, as though it has been accomplished already, and refuses even to consider the objections raised by population alarmists. He regards most resistance to technology and progress as a psychological rather than an intellectual problem.

"I have no patience with alarmists," he says emphatically in his Oxford-Middle Eastern accent. "There is no point even talking to them; they are not open to reason."

"But you can't just dismiss them like that. You have to offer reasons why you think they're wrong."

"I do dismiss them all out of hand. They are not interested in reasons. I have no time to debate with people who go into raptures of ecstasy about 'quaint' Iranian hovels and then go home to their automobiles and air-conditioned apartments."

"By holding a dialogue with them, perhaps you can bring them around to your own view."

"Such people are impervious to logic. No, I'm afraid they have a psychological blind to technology and progress. They are incapable of seeing the benefits of immortality."

"How do you answer their call for a return to nature?"

"Let them return to nature. That's where they belong. But I have grown up in the Middle East, and believe me when I tell you: I have seen the past, and it doesn't work."

Other visionaries have offered different reassurances. At any convention of futurists, one can hear the following statements made with absolute confidence: the state of Kansas can produce enough food to feed the entire world; there are more open spaces on earth today than a hundred years ago because the countryside and central cities have lost population to the suburbs; the earth can support upwards of 500 billion people; if every family today were given a decent housing plot, they would all fit inside Texas with room to spare; ground fish and other marine products offer a source of high-protein, low-cost food; there is more than enough timber in the Amazon Jungle to build a house for every family on earth; when India decides to slaughter her "sacred cows," she will become a major exporter of beef to developing nations; arid and frozen lands can now be brought under cultivation inexpensively for the first time.

"No matter who is right, I still lose," you say.

"What do you mean by that?"

"If Fuller has his way, I have to live in a high-rise

apartment building. If Ehrlich's right, I'll wind up the same way."

"But Ehrlich gives you an option. He says that everybody's going to be dead by the year 2000. On the other hand, he says it's possible that nobody will die and we'll all have to live in a worldwide apartment building."

"So, no matter what happens, Ehrlich turns out to be right."

"Clever, isn't he?"

"But I still don't see how he differs from Buckminster Fuller."

"That's easy. Ehrlich says you're going to be miserable no matter what, and Fuller says you're going to be happy living in his building."

"Now that's impossible. I can't possibly be happy living in a modern high-rise with goldfish swimming in the lobby."

"I'm afraid that's the price you have to pay for immortality."

No one can say for sure whether an immortalist society will result in overpopulation and mass starvation, or whether the optimists are right in claiming that new technology will enable us to solve all our problems. But certain trends are worth considering.

The United States birthrate has now dropped to its lowest level since the late 1930s, and the trend continues downward. The present figure is just slightly above the optimum level set by ZPG. In addition, more than 60 percent of the American population now favors liberalized abortion laws, an incredible jump from 15 percent in 1968.

Both the Catholic Church and Communist governments have been long-time opponents of family planning. The Catholic Church has taken the position that it is the duty of every Catholic mother to bear as many children as nature will allow and the moral obligation of the "have" nations to feed them all. Marxist ideology defines socialism as a system

capable of providing abundance for everyone on earth; by definition there is no such thing as overpopulation.

In both cases there is now room for optimism. The clergy and the faithful are in open revolt within the Catholic Church. Liberal Catholic journals like *Commonweal* have been leading the fight, exhorting their readers to reevaluate traditional teachings on Papal infallibility, celibacy for the priesthood, and the birth-control issue. *America,* a Catholic publication which once editorialized against "unilateral depopulation in the West" lest we all "find ourselves eating with chopsticks," has grown less tiresome of late.

The Catholic Church at various times throughout its history has violently opposed surgery, inoculation, lending money on interest, eating meat on Fridays, belief in a heliocentric solar system, reading "forbidden" books and seeing prohibited movies, and, of course, family planning. This last restriction, one can safely predict, is destined to go the way of the others.

In Communist societies—ideology to the contrary—there is evidence that burgeoning population is eliciting concern. Author Edgar Snow reported before his death, for example, that Party functionaries receive no extra compensation for more than two children in mainland China, and contraceptives are widely available and extremely inexpensive there.

Other factors take some of the steam out of the overpopulation and famine arguments against immortality: weapons technology which, ironically enough, makes massive armies (More People, More Power) obsolete as a means of defense; a decline in the Latin machismo complex, which measures a man's masculinity by the number of his progeny; global communications and wide-scale industrialization, which could lead to growing literacy and intellectual independence among the masses.

A study of industrialized nations seems to uncover a general pattern in development: rising industrialization and affluence results in a leveling off and then a decline in

birthrate. As new machinery is brought onto the farms, children are less in demand as extra hands and become, instead, a drain on parents whose rising affluence does not depend on manual labor. In this light, it would make better sense for proponents of ZPG to support industrialization rather than to oppose it, as many of them have done with their call for a "return to nature."

"So what it comes down to is the fact that *nobody* really knows how many people can fit on earth."

"That's not quite true. After weighing all the evidence pro and con, it is possible to come up with a realistic range."

"Which is?"

"Well, these are only rough figures, you understand. I suppose we'd have to say that the earth can support somewhere between Ehrlich's 1 or 2 billion and Fuller's 1 or 2 trillion."

"Just a simple question of a few zeros or so?"

"That's about it."

"That's what I thought."

In view of Ehrlich's proposals, one begins to wonder if his medicine is not more distasteful than the prospect of humanity going to hell in its own fashion. Among his recommendations: prohibitive taxes on cribs, diapers, toys, and other baby items (who can jest about that one?); reverse progressive taxation rising for each birth; governmentally administered vasectomies; nationalized adoption agencies; and—*pièce de resistance*—a powerful federal agency authorized to take *whatever steps are necessary* to establish a "reasonable population level" in the United States. (We do not have to ask him who he thinks should head this agency.)

Fuller, of course, wants to put us all in Japan *just to prove he can do it* (the son-of-a-bitch probably could, too).

We would all be enclosed in one of his bubble-top cities with Bucky watching over us as though the planet were his private greenhouse.

To both our would-be saviors we can cry out in unison: "Thanks but no thanks. We prefer to be immortal and take our chances with the future."

Probably the only realistic estimate as to how many people the earth can support is somewhere between zero and infinity. Two people would be too much if they were Paul Ehrlich and Buckminster Fuller; Ehrlich would be trying to reduce the number to one, and Fuller would try to stick Ehrlich in a greenhouse. Then again, a trillion might not be too many if they were all tied in chains so they couldn't cut one another's throats and fed intravenously by a universal slave master.

The only thing we can be sure of is that the possible will one day be achieved. Immortality, falling within the realm of the scientifically feasible, is a coming reality, whether we like it or not. We shall all just have to hope for the best. With any luck at all, Kansas will not be called upon to feed the world, and the timber of the Amazon will not be merchandised to house it.

And hopefully, Fuller's schemes notwithstanding, the human race will not have to cluster together in a mile-high file cabinet.

7

A Global Garbage Pail

As if overpopulation weren't enough of a hurdle in your quest for immortality, you now come up against the ecology issue, which is more than enough to give anybody a headache.

On one side of the barricade are the forces for industry who tend to regard nature as an obstacle in the path of man's progress:

"Look out the window, Bruce. What do you see?"

"Trees, grass, the ocean."

"Goddamn waste, isn't it?"

"What do you mean?"

"It's not right, I tell you. The ocean flopping in on the beach all day. Trees and rocks taking up all that valuable space."

"Good point, J.B. I hadn't quite thought of it that way before."

"Think of the use that land could be put to. It's a perfect spot for an amusement park."

"Do you think there's a *demand* for an amusement park in this area, J.B.?"

"That's negative thinking, my boy. You don't wait for the demand to come to you. You *manufacture* a demand. That's what progress is all about."

"It's an honor working for you, sir. You are a man of true vision."

"That's why I'm the chief and you're just a little Indian."

Lined up against industry are the Sierra Club, the National Audubon Society, the Izaak Walton League, and the Boone and Crockett Club. Their party line is also familiar to us:

"We are living in a sick, degenerate society."

"Everything the white man touches turns to shit."

"Every time I see an automobile or a smokestack, Ronald, I feel like burning it to the ground."

"Progress and technology are mankind's foremost enemies."

"Nature is where it's really at."

"Heavy, man, heavy. I think you just blew my mind, Hank."

Neither camp offers much hope for you, the immortality seeker. If the industrialists have their way, the earth won't be fit for rats to inhabit, let alone a society of immortalists. And if we all abandon the future and return to the world of our primal ancestors, we will once again be at the mercy of every snowstorm and heat wave that blows along.

What both these factions overlook is that there is nothing intrinsically evil about either technology or nature. The real question is whether anyone has the moral right to inflict the person or property of someone else with his poisonous discharges.

Ecologists tell us that many accidents are a result of impaired reflex time due to pollution; marriages are strained by personality changes caused by lead deposits in the body; the rising incidence of tornadoes is a result of man-made pollution whipped into rotating patterns by air currents; health costs have gone up; the average temperature of earth is rising and the polar caps are melting, raising the level of the oceans, eroding beaches, and threatening coastal cities

with inundation (this might be one effective way of eliminating the prime centers of pollution, causing the temperature to go down again, the polar caps to refreeze, the oceans to recede, etc.); subtle genetic changes are occurring in the human body as a result of pollution, affecting the evolutionary development of the human race.

Just how much of this is hokum, and how much should be taken seriously, is anybody's guess. But the measurable consequences of pollution alone are enough to chill the most complacent among us. We do know that pollution is an act of aggression resulting in personal injury, sometimes death, as well as enormous property damage. The problem is what to do about the mess that already exists. "Abandoning technology," "reducing our numbers," "going back to nature"—all are simplistic cop-outs, which provide an escape from rather than a solution to our problems.

For the would-be immortalist, technology is a vital part of man's future. We cannot live forever without it; neither can we live forever if we permit that technology to turn the earth into a pigsty. So you, the immortality seeker, find yourself caught in the middle. You are likely to be accused of wanting to have your cake and eat it too. You want the benefits of technology, particularly indefinite life, but you want to enjoy those benefits in an earthly paradise.

"There's no way out for me," you say.

"What do you mean by that?"

"I want to live forever, but I like to go camping, too."

"So what's wrong with that?"

"You can't have both at the same time. It's either technology or nature."

"You mean we have to stamp out one or the other?"

"That's about it."

"But wouldn't it be nice to have the best of both worlds?"

"Sure, but how?"

"People make obscene telephone calls, don't they?"

"What's that got to do with anything?"

"You don't hear anyone saying we should abandon the telephone. You don't eliminate obscene phone calls by eliminating the telephone—that's all I'm saying."

"In other words, you don't do away with pollution by doing away with technology. Is that what you mean?"

"That's it in a nutshell. What do you think?"

"I don't know. I don't see anything wrong with obscene telephone calls."

In the final analysis, the only thing capable of saving us from ourselves—if we are to maintain a high standard of living—is the technology that caused much of the mess in the first place. The same technology that will bring us physical immortality can, if it is used properly, at the same time provide us with a clean environment.

How can this be done?

When companies are forced to recycle, many of them find they can do it at a profit. Soot, for example, is composed of valuable metallic, chemical, and organic particles. By recycling it back into production, industry is already beginning to save millions of dollars a year in reusable commercial products. Fly ash has been manufactured into cinder blocks; alfalfa dust sold for cattle feed; garbage used in paving material, land fill, and building blocks.

Companies—and municipal governments—have been reluctant to recycle, since these innovations entail high initial costs, so it is up to the public to keep the pressure on, increasing it steadily.

Innovations to counter pollution from automobiles are also slow to get under way. Devices are available now that are much more effective on spark ignition exhaust fumes than they were a few years ago. The problem is forcing Detroit to use them. There is also a lot of talk about mass-producing diesel and gas turbine engines, electric and

steam-powered cars, all of which are considerably cleaner than the ubiquitous spark ignition engine. However, the idea of abandoning our long, noisy, streamlined machines may be traumatic for a large segment of the population.

This is not the place to go into a long technical discussion of antipollution devices. There are any number of books on the market that do that in considerable detail. For you, the immortality seeker, the main point is that it *is* possible to have the best of both worlds. We can have our technology *and* a clean environment simultaneously. With a little work and foresight, technology and nature can coexist.

The solution to the problem lies in two basic areas. First, we must recognize that the problem does exist. And second, we must be willing to take the steps necessary to force the polluters to recycle. The second step has been postponed largely because of resistance to the first.

"Did you see the paper today? It says here we're all going to choke to death on our own filth before the year 2000."

"Yes, but fortunately I don't have to worry about it."

"How's that?"

"I saw a list of the ten most polluted cities in the country last week. Pittsburgh was number one on the Hit Parade, but my town came in only seventh."

"Groovy, man. Who's number two?"

This mentality is like that of someone entering a bar full of reeling drunks, compiling a list of the ten most drunk, and then declaring the others "sober."

Another reason for the foot-dragging on step two is the very nature of politics. Not only are the authorities prime sources of pollution themselves, but politicians are beholden to power blocs for both votes and campaign funds. Consequently, the government has been waging a fight against cigarette smoking, a form of voluntary self-pollution, while doing next to nothing about corporations, municipal incinerators, and sewage systems. It has levied ridiculously low but effective fines against the neighborhood leaf-burner,

but has done next to nothing about business concerns and powerful landlords who burn more than leaves. In view of the protection we get from government, we might as well ask Willie Sutton to guard our silverware.

Those seeking immortality, who hope to have the best technology can offer, along with the best of nature, will have to look beyond government regulatory agencies and legislatures.

Part of the solution may rest with the judicial system. Citizens' organizations, and even individuals, are turning to the courts for injunctions against polluters. In 1969 a Long Island housewife filed suit in federal court against five pesticide companies for damages caused by pollution. In 1970 Governor William G. Milliken of Michigan signed a bill allowing citizens the right to file suit against public agencies and private industries that pollute the environment.

Thus, Michigan became the first state specifically to ensure people of this fundamental right to protect their lives and property, so we can thank the good governor for granting the public a right that should never have been abrogated in the first place. Now New York, Massachusetts, Pennsylvania, Tennessee, Colorado, California, and Texas are supposed to be planning similar legislation.

Corporations usually retaliate by threatening to pick up stakes and move to a place where the authorities are more tractable, but this has been an empty bluff in most cases. When an industry is profitably entrenched in an area, it is considerably less expensive to comply with antipollution legislation than to undergo the expense of relocation, damage to a company's public image, uncertain labor conditions, etc.

Would-be immortalists who are so inclined could even attempt to organize boycotts against polluters if other measures fail.

"What we need now is a Cesar Chavez to lead our movement."

"But he's a *Communist.* We don't need him."

"I'm not saying it *has* to be him. Maybe somebody from the Fuller camp who doesn't mind doing a little organizing."

"You mean somebody like Robert Heinlein or Isaac Asimov with a *social conscience?"*

"I don't know. Do you think it would be possible to convert Chavez to futurism?"

"He's supposed to be a fanatic Catholic."

"So we tell him we've got a new religion going here. It's his duty, his *moral obligation* to lead a boycott against polluters."

"There's only one problem with that."

"What?"

"Suppose he doesn't want to live forever *on earth?"*

"There's always Ralph Nader. Chavez would be an idiot to turn it down."

One thing we can all be sure of is that technology is not going to disappear. Before very long the entire earth will be caught up in the momentum of increasing industrialization. Only in the "have" nations, the ones that have already made it into the second half of the twentieth century, do people talk about "going back to nature." As Esfandiary says, the people who are still living in the past know that the past doesn't work. They have seen the future in other countries, and they are now demanding a piece of the action.

For seekers of immortality, particularly, solutions to the pollution problem are not to be found by resisting technology. Our lives depend on that technology. It is up to us to take the measures necessary to control it.

8

The Man Who Couldn't Retire

"Okay. I've come along with you this far," you say. "I still want to be immortal despite the doomsday prophets."

"Great. That about wraps it up then, I guess."

"Not quite."

"What's your problem now?"

"I've got a couple more questions."

"Shoot."

"Suppose I go ahead and have myself frozen, just for argument's sake, okay?"

"I'm with you."

"How do I know whether I'm dead or not?"

"I beg your pardon."

"A little while ago you said that somebody who is frozen is still biologically alive."

"True."

"Well, if I'm biologically alive, that means I'm not dead."

"Right again. If we're going to bring you back someday, we can't very well go around saying you're dead now, can we?"

"If I'm not dead, then what am I?"

"I suppose we'll have to tell your friends and relatives that you're in a state of suspended animation, that you're sleeping in the twilight zone or something."

"That means nobody can bury me. Right?"

"Right! Anybody who tries to bury you while you're in a state of suspended animation will be arrested for attempted murder."

"That puts my mind at ease, it really does."

What this means to you, the immortalist, is that we will have to come up with a new definition of death—to protect the interests of the living and for the sake of accuracy. If we learn to bring people back from what is considered clinical death today, then the word *death* in its present context ceases to have any meaning. To keep abreast of immortalist developments, the concept of death can only be applied to those beyond all hope of biological reanimation. Today clinical death is final; in the near future, life will continue in cryonic suspension until all its biological traces are gone.

"Okay, so I'm not dead. Now let me ask you something else. Suppose I want to have myself frozen any time I want to, right now even? What about that?"

"You mean, before you're clinically dead by today's rules? While your brain is still functioning?"

"That's right."

"Why the hell would you want to do that?"

"I don't feel like giving any reasons. I just want to have myself frozen, that's all there is to it. Is that suicide or not?"

"Well, if you're not really dead and we're going to resuscitate you eventually, nobody can accuse you of committing suicide."

"That's good. But suppose I really *do* want to kill myself? Maybe I don't like being alive and I decide to turn on the gas jets."

"I'm still with you, I think."

"What happens if my family won't let me stay dead?"

"Now you've lost me."

"My wife thinks I'm nuts, see. She thinks I really didn't

want to kill myself. All she has to do is have me frozen and then reanimated. There's no way out for me. I'm back where I started."

"I think you're creating problems for yourself that won't come up."

"Under your system, if somebody *really* wants to knock himself off, he'll probably have to blow himself to bits."

Those of you who are seriously concerned about the question of suicide can take solace in the knowledge that having oneself frozen cannot really be considered self-destruction. From both a moral and a legal aspect, you can keep your consciences free of guilt.

A more serious issue involves insurance policies and inheritance laws. Trying to figure out when life-insurance policies should be paid off could trigger waves of alarm in insurance companies throughout the country.

Actually the problem shouldn't be that difficult to solve. Every policy has a list of insuring agreements, definitions, exclusions, and conditions. These various categories are always in a state of change; almost every time we renew an automobile or a homeowner's policy (if we haven't been canceled, that is), we usually find that definitions have been changed, exclusions have been added, agreements have been narrowed, and premiums have increased.

There's no reason policies can't be written to suit conditions in an immortalist society. We may want to leave it all to our families when we are frozen, use part of it to cover costs, or even take it with us, in which case all that filthy lucre could also be frozen for posterity.

Inheritance is also a matter of contract. The would-be immortalist doesn't need a body of laws to tell him what to do with his estate. He can decide before being frozen whether to pass it on to his family—in which case he would simply leave a will—or keep it in his own name to cover freezing expenses, in which case this would be written into

his contract with the cryonics firm he is dealing with. The reader can most likely think of variations to these alternatives, all of which could easily be taken care of by contract beforehand.

"What about the government?" you want to know.

"What about it?"

"The authorities are not going to get a piece of the action if I take it all with me. If I don't leave anything, there's nothing to tax."

"You've got a point there."

"If nobody dies, the government could go bankrupt."

"Just think what that would mean."

"No more 'billions for defense.' No more fat raises for politicians."

"Wouldn't that be terrible?"

"The government's got a *vested interest* in death, for Christ's sake!"

"Now you're beginning to sound like Cesar Chavez."

"Or Ralph Nader anyway. This immortality movement of yours is starting to get a bit subversive for me."

"I suppose you're right. It could mean the end of government altogether."

"Maybe we should let the politicians have what's due them now, so they don't have to worry about it later."

"You mean pay the taxes *voluntarily* beforehand?"

"No. I was thinking more in terms of granting them special privileges. Why don't we freeze them all right now for *nothing?*"

Then we get to the area of pensions and social-security benefits. Today we can expect an individual to retire at sixty-two or sixty-five and decently pass away a decade later. What happens in the case of people who have no intention of dying when they are supposed to?

In New York City, for example, it is possible to join the police force or fire department at twenty-one and retire at

forty-one with an enviable paycheck for the rest of your life. With a major breakthrough in the anti-aging field, the pension payments could double or triple in a matter of years, and the average taxpayer would find much of his taxes used to support retired civil servants.

"Now we get right down to it, don't we, sport?"

"What do you mean by that?"

"This immortality business of yours is strictly a con game."

"I still don't get you."

"You've been after my pension all along. Admit it."

"That's not true."

"I worked hard all my life to get that pension."

"I realize that. I'm not after your pension."

"If I'm smart enough to have myself frozen instead of dying like everybody else, why should I have to forfeit my pension?"

"No one's saying you're not entitled to a pension. But look at it this way—"

"I'm listening all right, but I don't think I'm going to like it."

"Let's say you put in twenty-five years on the job. Okay?"

"So far so good."

"Ordinarily you'd live another fifteen years or so and then pass away."

"I'm with you so far."

"But once we make you immortal, that means you may never die."

"Uh-huh."

"Do you think it's fair to collect a pension for five hundred years?"

"I want my pension."

"For five *thousand* years?"

"I want my pension."

"Suppose you're frozen for fifty thousand years, for

God's sake. Would you expect your pension to *accumulate* all that time?"

"I want my pension."

Perhaps the best way out of this dilemma is to jettison the whole concept of retirement altogether. It's bad enough turning someone out to pasture when he still has ten good years ahead; but how do you retire anyone at sixty-five when he's still in the prime of life? The Eskimos used to send their elderly off into the wilderness to die by themselves. Today we have Retirement Villages, Senior Citizens Developments, and Old Age Homes, which are merely sophisticated and more dishonest versions of the same practice.

In an immortalist society, with people remaining vigorous and youthful indefinitely, the question of retirement may never come up.

"You're full of bargains today, aren't you?"

"What do you mean?"

"First you want to take my pension away, now you want me to stay on the job until I'm older than Methuselah."

"If you're still going strong at two hundred and thirty-six, there's no reason for you to think of quitting."

"I think I'm changing my mind. I don't want to be immortal after all."

"Nobody says you *have* to keep on working. It's just that if you want to, nobody can force you to retire."

"You mean I can retire any time I want to?"

"Of course you can."

"What about my pension?"

"I thought we resolved that one already. The only reason you get a pension today is because you're *forced* to retire. If nobody forces you to retire you can keep on working and you won't *need* a pension."

"So I've got a choice?"

"That's right."

"I can either keep on working for ten thousand years, or I can quit when I'm sixty, in which case I can't collect a pension."

"That's about it."

"You make the whole future sound like *Catch 22.*"

"Don't worry about it, my friend. We'll find *some* way to solve the problem."

To keep the picture as uncomplicated as possible, we could erect a barrier between state and immortality as sacrosanct as that separating state and church. Ideally government may one day fold altogether under the weight of its own bureaucracy. This, however, brings us into a separate area with different problems entirely.

Alan Harrington warns us in *The Immortalist* against rioting and revolutionary outrage if government does not make freezing and other immortalist schemes available cheaply to the public. Anders Bodelsen paints a scenario of proletarian hordes rising up to seize cryotoria in his gloomy, apocalyptic novel *Freezing Down.* Curtis Henderson, president of the Cryonics Society of New York, prefers that all this be accomplished privately—then goes on to say that the federal government will have to launch a massive research program on life-extension techniques since it confiscates so much capital through taxation. Arthur C. Clarke and Buckminster Fuller have been exhorting the politicians for years to divert more funds into visionary schemes.

With every lobby group in the country screaming for a bigger share of the tax pie—be it for day-care centers, abortion clinics, hydra-headed nuclear bombs, or nationalized freezers—it should be interesting to see how it all comes out in the end.

All of us have our own ideas on how government should spend our money; whether, indeed, government, as we know it today, ought to exist in the first place. Some, no

doubt, will insist that government should step in immediately to regulate an area with such far-reaching social consequences as immortality. Others will take the position that people are perfectly capable of organizing their own affairs without any help from the authorities, elected or otherwise. This debate is as old as human history, and it won't be resolved here.

Suffice it to say that you, dear immortality seeker, have noted it in passing, and fully expect it to evolve into one of the most heated political debates of the next decade or so.

9

One Big Happy Family

By now you've come along pretty far. You've gotten past ZPG, the pollution people, and some nasty legal hurdles. You still don't like the idea of not collecting a pension, but you've been able to hook up with a firm that's willing to pay you "retirement benefits" for twenty years, after which time you're back on your own again. This sounds like a reasonable solution for you—at least until somebody comes up with something better. So, after all has been said and done, you're ready to sign an agreement with a cryonics company to have yourself frozen. Right?

Wrong.

You've still got some objections.

"I'd like to ask you another question."

"What is it now, my friend?"

"Let's assume again that I have myself frozen. Okay?"

"Splendid."

"What happens if I'm reanimated after fifty years . . ."

"Yes, yes."

". . . and fall in love with my granddaughter?"

"You do think up some hard ones, don't you?"

"I want to make sure I'm covered for any eventuality."

"Let's see now. It is theoretically possible that you *could* fall in love with a grandchild since you will have been suspended and she will have been aging all the while."

"That's what I just said."

"Don't forget, though, that by this time most people will be utilizing sperm banks and ectogenesis for childbirth. People falling in love will simply feed their names into a computer and receive genealogical printouts, which could then be checked for overlapping bloodlines."

"So there won't be any danger of mental or physical defects in our children. You'll be able to fiddle around with the genes."

"Absolutely."

"That means there won't be any complications if I *do* fall in love with my granddaughter."

"I see no reason why there should be."

"You wouldn't think of me as a pervert or anything."

"Not at all."

"I'll have to think about it."

Aside from the question of accidental incest, reentry after a few generations in the deep freeze is apt to pose some serious problems. Mary Ann Harbert was aboard a yacht that strayed into Communist Chinese waters in 1967. She spent four years in a Chinese prison. Her first reaction upon reentering the United States was bewilderment over technological advances achieved during her hiatus. She had received no news from the outside world and was overwhelmed that human beings had actually landed on the moon. Richard G. Fecteau, released by the Chinese after nineteen years in captivity, claimed that he would have to develop some sort of "mechanism" to handle the impact of his new surroundings.

How much more devastating will the shock be for someone reentering society after thirty, fifty, maybe a hundred years in cryonic suspension?

To answer this, it helps a bit to understand that reincarnated human beings will be returning to a different world entirely than the one we know today. The nuclear family of

yesterday has all but been buried, although it will probably be a while longer before most of us want to admit it.

Lifelong monogamy is even today becoming the exception rather than the rule. We seem to be moving toward a system best described as horizontal polygamy—several marriage partners taken in succession instead of simultaneously. Pretty soon, one state or another is going to pass a law legalizing experimental marriage contracts. Maryland was toying with the idea back in 1971, but the public uproar over this "Communist-inspired plot to destroy our moral standards" killed the proposal for the time being.

However, many couples are beginning to present the state with a *fait accompli.* The new feminist movement has been endorsing the idea of people bypassing the state apparatus and writing their own contracts, renewable at three- or five-year intervals, whatever each couple decides for itself. Others are not even bothering with contracts and simply setting up housekeeping together whenever they feel like it. Many of the so-called "cooperative communities" established in the past few years represent a new kind of marriage involving a group of people, usually with common interests, banding together for economic and social reasons.

As people begin to live longer and longer, the trend away from lifelong monogamy is bound to accelerate. It's hard enough for two people to develop together in the same interests and at the same rate when they live together thirty or forty years. It'll be all but impossible when they are still staring at each other after a hundred years.

What this means for you, the returning immortalist, is that you will be coming back to a social structure totally different from the one you knew when you were frozen. You might be free to return to your old family, shop around for a new one, or live alone to keep things as uncomplicated as possible. Those living indefinitely, whether continuously or with frosty interruptions along the

way, might opt for a little variety in their lives. Twenty years with one family might be as much as they can take.

"There's only one thing that bothers me about all this."

"What's that?"

"What about kids?"

"What about them?"

"They've been getting a bad press lately. People used to have respect for the American Mom and the benefits of raising children."

"And you think that's changing?"

"I read recently that having an American mother is the worst thing that can happen. All they want to do is examine their children's bowel movements."

"You don't think that's true?"

"If it keeps up, nobody will have children anymore."

"That's not so. All it means is that *mothers* won't have children as much anymore."

"Now you're losing me again."

"We'll have all sorts of sperm banks by the time you're thawed out. You won't *have* to be a mother to have a child any longer. *Any* number can play."

In October 1971, the first commercial sperm bank opened in New York City. Minneapolis has hosted one since 1970, and others are scheduled to open in Chicago, San Francisco, Houston, and Miami.

Dr. Robert Ersek, medical director of Genetics Laboratories, Inc., maintains he has been deluged with calls from people all over the country who are dying to have their sperm frozen. Some men say they want their genes preserved for posterity before undergoing vasectomies; others give different explanations. No doubt the real reason runs much deeper than that for many men.

These developments are bound to change our basic attitude toward the entire concept of childbirth. Eventually women, demanding equal rights, will enter the field, scattering their ova like flowers across the land. People who failed to have children for various reasons when it was physically possible for them need no longer despair when they enter their later years. Childless couples, single individuals, career women, and older men, deciding that they want a son or daughter without going through the ritual of marriage and pregnancy, will soon be able to do so.

With traditional parenthood and family structure growing obsolete, the problems of raising children will be completely different for immortalists of the future. Immortalists may even succeed in bringing children into the world who are wanted by the entire family and spared the fate of being "loved only by their mothers."

Another possible benefit for children in an immortalist society lies in the fact that the clinical "death" of a parent may not be so traumatic as it is today. In a fluid, communitarian family structure, parenthood will not be limited to a single man and woman. The family group instead will serve as a collective parent. Family environment should be more pleasant when bloodlines cease to matter and people join together voluntarily because of common interests and tastes.

Immortalists will also be able to utilize genetic engineering to ensure that their offspring are free of physical deformities and mental retardation. The benefits of this are evident in the fact that by the introduction of a foreign gene into a human cell, biochemists look forward to checking diseases like sickle-cell anemia, mongolism, and diabetes during gestation. Dr. John Littlefield of the Massachusetts General Hospital claims that we might be able to "turn genes on and off" someday, eventually be able to control the biological evolution of the human race.

With the benefits also comes the possibility of horrifying consequences, akin to the Clonal Hitler Scare. Eugenic manipulation and restructuring of humanity can, of course, be used to serve the interests of power in the same way that

atomic energy resulted in a nightmare called Hiroshima.

"You just had to bring up cloning again, didn't you?"

"You admitted a little while ago that it wasn't so bad after all."

"Not when I compare it with hibernation or starving myself to death."

"Now that we've come this far, do you have any more questions?"

"Before I make up my mind, I'd like to know what else you've got to offer."

"Offhand, let me see. As an immortalist you'll be free to pursue more than one career. For example, what do you do for a living now?"

"I'm an automobile mechanic."

"If we can keep you young indefinitely, or if we freeze you and bring you back, you'll have plenty of time to switch careers. You can take up the piano at sixty."

"Isn't that terrific!"

"Or become a wire lather."

"Now you're talking. They make four dollars an hour more than I do."

"The point is: you'll have all sorts of time to do anything you want. You'll be completely free at last."

"There's too much freedom as there is right now."

"You can't mean that seriously."

"What we need is a dictator."

"You're attacking a straw man. B.F. Skinner says that man is so totally conditioned by his environment that it's ridiculous to even talk about personal freedom today."

"All this lawlessness and disrespect for the flag."

"Alvin Toffler claims that ideology is obsolete, and the notion of individual freedom is a romantic pipedream."

"Looting and burning and sex all over the place."

"Arthur C. Clarke and Buckminster Fuller think that our concepts of private freedom and ownership are already archaic."

"They're actually screwing in public. Right out in the open."

"Freedom certainly has been a pipedream until now."

"It's getting so you can't even take your kids to the movies anymore."

"How free was a man who had to labor twelve hours a day merely to feed and clothe himself?"

"There's drug addicts and weirdos everywhere you look."

"But in an immortalist society, with machines doing all our drudgery for us . . ."

"Now they're starting to use four-letter words on television."

". . . with today's luxuries mass-produced inexpensively for everyone. . . ."

"Permissiveness, drugs, and sex—that's the whole picture in a nutshell."

". . . total freedom can become possible for the first time in history."

"What we need is a crackdown, good and hard."

"Personally, I think Toffler, Skinner, and the others are off the mark."

"What the hell you talking about anyway?"

"It seems to me that no matter how many people we freeze and bring back to life . . ."

"What about it?"

". . . no matter how many clones and ectogenes we create in the laboratory. . ."

"There he goes again with the clones."

". . . no matter how many cyborgs we manufacture . . ."

"You never stop, do you?"

". . . no matter how many spaceships we send toward the stars, how many diseases we learn to cure through biofeedback, and how many immortalists are walking the earth three hundred years from today . . ."

"Don't mind me."

". . . it won't change the fact that man has a right to be free and go to heaven or hell in his own way."

"Here, here! Let's hear it now."

"As an immortalist, you'll have more options."

"That's what I need: options."

"There will be more diversity in life-styles."

"I'm not so sure about that one."

"Greater mobility and freedom to travel."

"I've always wanted to see Miami Beach."

"More mass-produced consumer goods."

"They don't make can openers the way they used to."

"And freedom from the greatest tyrant of all: death itself."

"There he goes with freedom again."

"What all this means is that Skinner, Toffler, and the rest of them are actually contradicting themselves."

"Freedom! What do we need more freedom for?"

"On the one hand, they tell us about all the alternatives we're going to have in the future . . ."

"Freedom to whack off on the subway maybe?"

"And, on the other hand, they say freedom is obsolete."

"As if all this freedom and promiscuity hasn't gone far enough already."

"What is freedom, if not more options for everyone?"

"Options! Now you're saying something again."

"All I'm talking about is options, alternatives. You dig?"

"Now you're saying something interesting."

"Options is where it's at."

"I'll buy that."

"So what do you say?"

"About what?"

"Have you decided to become an immortalist?"

"I'll have to think about it a little longer."

10

Taking the Plunge

You've had more than enough time to think it over. The alternatives are fairly cut and dried when you get right down to it: burial or cremation, which means total annihilation, or freezing, which gives you the chance, however slim, of coming back for a second look at life. That's about it. It's up to you. As Lyndon Johnson used to say: "It's time to shit or get off the pot."

"Give me a few more days, and I'll get back to you."

"You're stalling, my friend. There's nothing left to think about."

"Stop hustling me. I'll make up my own mind."

"We've answered all your objections. There's no reason to put it off any longer."

"What's the hurry anyway? When they come out with an anti-aging pill I won't have to worry about dying at all."

"Maybe. But you don't know how long that's going to take."

"You said less than ten years. By the end of the 1970s."

"Even so, a lot can happen in ten years. No matter how healthy or rejuvenated you are, you can still get hit by a car or die in a plane crash. No anti-aging pill in the world can protect you against that."

"You're a happy-go-lucky son of a bitch, aren't you?"

"I'm only thinking of your interests."

"You and Curtis Henderson and Benjamin Frank and Fullmaster Buckdancer or whatever his name is—you're worse than a bunch of vampires."

"You're only looking for excuses now. You know it's the best thing for you to do."

"What happens if you *can't* bring me back? There's no guarantee, is there?"

"If we determine at any time that it is scientifically impossible to reanimate those in a state of cryonic suspension, the balance of your insurance benefits automatically revert to your family."

"Oh, happy day. That sets my mind at ease."

"Do you want to be immortal?"

"Of course I do."

"Then just sign here on the dotted line, and we'll take care of it."

"You're a monopolist, that's what you are."

"There's still the church down the street if you think you've got a future there."

"They're a bunch of frauds and you're a goddamn shyster."

"Right now, we're the only ball game in town. It's up to you."

And so you sign. You've run out of reasons and there is no longer any excuse for putting it off. If and when the day arrives that you should be pronounced clinically dead by the constituted authorities, your remains will be placed in a Forever Flask filled with liquid nitrogen, and there you will rest until such a time as you can be fully restored to consciousness.

Actually putting your name on the agreement is a bit traumatic, but no more so than signing a contract for a new automobile. Once you've done it, you suddenly feel good about it. You know you've done the right thing. Besides,

there's a touch of status about being the first one on your block to sign up for the deep plunge. Your neighbors try to belittle the whole idea as though you were some kind of a nut, but you gloat smugly, indicating you know something that they don't. From the corner of your eye you can see that they are secretly worried. What if . . . what if there should be something to this immortality business after all? Why the hell should they rot in the ground while you are glowing pink and ruddy in your capsule?

If you *should* come back after they are gone, you'll be able to have the last laugh on all of them.

Oh no, that won't do at all. Without telling you about it, they all run off to sign cryonics contracts of their own. Before you know it, your whole neighborhood has opted for immortality. And you were the one who started it all. A trend-setter. The first would-be immortalist in town.

You don't like to brag, but you're actually something of a hero now.

Book Two:

The Book of Tomorrow

11

Coming Back

There's been a lot of nonsense written about how it feels coming out of cryonic suspension.

Most of the books on the subject would have you believe that people emerge in a semicatatonic state, hardly able to remember their names, gazing around stupidly at their surroundings, their brains swimming in a sea of clouds. In futuristic novels there is invariably a team of doctors and nurses hovering above the reincarnee, smiling down at him benignly as though he were a retarded child. They pat him on the head, ask him a few idiotic questions like whether he remembers his name, then they give him a sedative and put him back to sleep.

A little later a nurse—a rollicking piece of ass naturally, whose name turns out to be Vulcania or Thoog—returns alone. She moves about the room, fiddling with valves and various tubes, all connected to the patient's ear. Finally she smiles, twitches her butt a few times at the reincarnee, then disappears before he has a chance to speak to her.

For the next twenty-four hours the reincarnee is left alone on his bed, the sundry tubes and gauges running from his ear to a vast machine on the far side of the room, and he begins to think. The fog gradually starts to lift, and he feels the first faint stirrings of intelligence in the back of his mind.

His name . . . his name . . . his name is Moodan . . . or

maybe it's Morris . . . he can't be sure at first. He seems to recall something about his occupation. He sees a typewriter . . . an office . . . people milling around . . . a ticker-tape machine rattatating away, spewing newsprint on the floor . . . he's got it . . . he remembers.

His name is Morris and he was a typewriter repairman.

A few hours later memories of his past are really starting to fly at him like pellets from a shotgun. He is Morris Feinweather, typewriter repairman from the City of Major Minor, Ward Nine, Cubicle AX46, Slot 32. He led a very regimented life, running off to fix faulty platens at 4:30 every morning and returning to his cubicle at 11:00 P.M. to dial himself some dinner from a slot in the wall, then collapsing on his plastic slab in the corner.

Until . . . until he met Fantena. Fantena was different. She was tall, lithe, willowy. Her eyes shone like blue fire. She had no hair under her armpits . . . or anywhere else for that matter. When they made love, it was like sticking it in a hundred pounds of butter . . . unsalted. They were going to run off somewhere together . . . to a crystal lake beyond the reaches of the Pontons, the Nazilike troopers who patroled the streets of Major Minor.

And then disaster struck. While inserting a new platen in an electric typewriter one day, he electrocuted himself. That's all he can remember until now.

Now he begins to think of Thoog. Those calves . . . those thighs . . . that cute little rump twitching inside her see-through uniform . . . those eyes like blue ice . . . that smooth head glistening like an ice cube. He must speak to her again. Find out who she is.

Poor bastard! Sixty years in liquid nitrogen, and all he wants to do when he wakes up is rip off another piece of ass.

In reality it's nothing at all like that.

You come to in a revival room surrounded by a dozen others like yourself, all being reanimated at about the same

time. There are three or four technicians in the room, but they are there primarily to keep a close check on the central computer that does all the heavy work, monitoring vital functions and sending out an alarm whenever anything goes amiss.

There are no Thoogs staring down at you—unfortunately, because your prime sensations are horniness, hunger, and a monumental thirst, in that order. It's true; you do wake up with a ravenous appetite for carnal knowledge, meatballs and spaghetti, and a good slug of sour-mash whiskey.

The throbbing in your head becomes unbearable, and one of the attendants comes to your side and offers you a couple of aspirin. He is probably a thin young man with wavy hair, and his first words to you are:

"Hi. My name is Tony. Would you like to pee or something, dear?"

"Jesus Christ. Where the hell am I anyway?" You are on the verge of tears.

"Don't worry. I'm here to help you."

"Well, I do have to go to the bathroom very badly."

"Of course you do," Tony says. "After all, it *has* been quite a while."

You wait for him to bring you a bedpan, but he merely smiles.

"Well, come on, silly. Get up. Don't expect to be treated like an invalid."

You hesitate at first. "Don't I have to learn to walk all over again? I mean, how long have I been under anyway?"

Tony checks your chart. "Seventy-four years and three months, almost to the day."

"But, except for this headache, I feel as though I just went to sleep last night and woke up in the morning."

"Of course you do. So does everyone else."

"And my head is clear. No fuzzier than usual, at least."

"You've read too many science fiction books," he says.

The knowledge that you were frozen more than seventy-four years ago and have now been thawed in the year—let's

see, it must be 2054—is a bit shocking at first. The biggest disappointment is the feeling that it all seems like little more than a good night's sleep. You had anticipated more than this: trumpets, drums, a choir of cherubic dwarfs—something. Nearly three-quarters of a century have whipped on by and, evidently, the world has managed very well without your presence.

How disillusioning!

But soon you begin to adjust to your situation. A suit of clothes is laid out on your bed when you return from your morning ablutions. (It is always morning when you are reanimated to make it easier to resume a normal daily routine.)

After dressing yourself, you are taken to a cafeteria on another level of the building and introduced to others like yourself who have recently been reincarnated. One, invariably, has been "up" for a day or two at this point, and seems to enjoy playing the role of Scholarly Mentor to the rest. He holds court at the head of the dining table and invites you to sit down and join them.

At first you're not too concerned about participating in the conversation taking place around you. Your main interest is filling the hollow in your gut, and when a waiter appears at your side, you are happy to see that the menu is extensive—French food, Szechuan, prime ribs, roast duckling, veal, and lasagna. You want all of it but settle for lasagna. When it comes, you dive in with abandon, unashamedly making a total glutton of yourself.

It's great to know you're alive again.

Conversation comes easily.

Too easily in fact. Everyone is talking at the same time, asking questions, laughing, telling anecdotes, trying to find out from each other as much as they can all at once.

Five minutes of this and you know they're all full of crap. Every time someone asks a question, six people try to

answer him as though they all knew what they were talking about. You understand at once that the human race hasn't really changed a bit in the past seventy-four years.

Here they've all been snoozing in liquid nitrogen since the turn of the century, and they all come on like Walter Cronkite reporting on the latest rape in Fun City. No one will admit he doesn't know what the hell he's talking about.

The angriest of all, naturally, is Mentor at the head of the table. *He's* been up and around for a full twenty-four hours already, and everybody's trying to sound as though they know as much as *he* does. Why don't they all keep their mouths shut and learn something for a change? *He* can teach them something if they're really interested. *He's* the only one there who knows what it's like to spend a full day back in the world again. *He's* had a chance to spend some time in the library reading up on recent history. Morons! They won't listen to *anyone.*

It doesn't take long for you to realize that you're not about to learn anything from this claque. Talk about the blind leading the blind. So you make your excuses and push away from the table. Let's see. Where to next? The library, of course. You can make some sense out of a library . . . the books, at least, don't talk back. You can close them for good when they start to give you a headache. You're about to ask directions from Mentor, then decide against it. He's dying to talk to someone, anyone, and once he gets your ear, he'll never let it go. Better to stumble around lost in the hallways than ask *him* anything.

Checking the schedule on the bulletin board in the corridor, you discover that formal orientation counseling begins tomorrow morning for you. During your first day back you're left pretty much to your own devices. You can make as much or as little use of your first day as you choose.

You decide to get your bearings as quickly as possible. Since you recall vividly everything that happened up to the

time of your clinical "death" in 1980, the first order of business is to familiarize yourself with worldwide developments dating back to the beginning of your suspension. To bring yourself up-to-date, you have your choice between a soldierly row of history books and a microfilm video-history going back to the late 1970s.

Scholar that you are, you stride up to the librarian and, without batting an eye, ask for you know what.

The librarian sets up the machine for you with abrupt efficiency and gets you started.

Goggle-eyed, you sit there with your eyes glued to the viewer.

"Oh, my God! Is this what *I* started?" you yell unintentionally, then turn crimson when the librarian (who looks pretty much the way librarians have always looked) glowers at you from across the room.

Slowly you turn the microfilm, and history unfolds before your eyes.

12

The Greatest Show on the Face of the Earth

By the middle of the 1980s, the cryonics movement really began to build up momentum.

By 1990, 586,329 people had committed themselves to the deep freeze instead of opting for traditional burial. In the earlier years most of the freezing in the United States was done by the Cryonics Society of New York in Sayville, Long Island. But by 1976 the Society could no longer handle the growing demand for its services, and franchises were established in a dozen major cities in the United States, Canada, and Europe.

Cryonics remained primarily a counterculture phenomenon, however, until Allied Chemical entered the field in 1977. Through its vast research facilities and marketing techniques, Allied Chemical was able to mass-produce a freezer plan program at low cost for the public.

At this point things really began to take off.

Demand for the cryonic suspension of the human body reached a level even Allied Chemical found difficult to meet. Competitors began to enter the field in droves: IBM, Westinghouse, General Motors, Sony, Cryotechnic Laboratories, Mister Frostee, and many others.

By the beginning of the new decade, virtually every urban center in most civilized countries boasted a cryonics center complete with freezing facilities and cryotoria. By 1982 it became apparent to socially aware people across the

globe that people-freezing was beginning to cause tremendous storage problems. Cemeteries were bad enough, but now we could no longer even bury our dead if they all insisted on coming back sometime in the future.

In the fall of 1982, Dr. John Grimsby, a protégé of Paul Ehrlich, published his magnum opus numero uno, *Nightmare on Ice*, a novelized account of how there were going to be only twenty-nine people left in the universe by 1993. With clear-eyed precision Grimsby described how the total destruction of life "as we know it today" was inevitable; however, it could be postponed by four or five years if governments throughout the world followed his seventeen-point proposal calling for, among other things, the "melting of everyone presently in cold storage and the use of their body fats as rocket fuel to put 3.165 billion people, randomly selected by computer, in orbit around the sun."

A "lottery system" to select those to be orbited was deemed much more democratic than a compulsory draft.

Fortunately the human race was spared this rather sordid fate when a new figure entered the breach, a heretofore unknown Brazilian architect named Juan Cortesos.

"I weel raise ce dead," he said, and he meant it quite literally.

Juan was the son-in-law of the internationally famous Dylardo Silva e Souza, who designed the first high-rise cemetery ever built—a thirty-nine-story, $14.5-million skyscraper erected in Rio de Janeiro in 1972. Silva e Souza's vertical mausoleum contained 21,000 tombs, a heliport on the roof, an eight-story garage for visitors, two churches and twenty-one chapels for grieving friends and relatives, and piped-in somber music in the background.

Following his father-in-law's lead, Juan Cortesos proposed a similar idea for the storage of those in cryonic suspension.

"Same ting," he announced at a news conference in Rio de Janeiro. "Only diffrenz, dese ones come bock some day and ozzer ones is dead."

"How high do you want to build these cryotoria?" he was asked.

"How high? I wan beeld up to sky. Ce higher ce bezzer."

His proposal was first greeted with cries of outrage by leading ecologists in all the civilized nations. Ehrlich called it "irresponsible and ignorant and doomed to failure." In a rare fit of pique, Julian Huxley went so far as to call Cortesos "a silly little nit."

By the end of the 1980s, however, Cortesos' visionary project proved highly practicable. Fifteen high-rise cryotoria had been built in South America, Africa, the United States, and Europe—enough to house all those already frozen (more than half a million) with plenty of room to spare.

During this period a great political debate racked the halls of the United States Congress.

One faction, recalling earlier predictions of revolutionary uprisings unless immortality were made available inexpensively to everyone, wanted the federal government to earmark $100 million over the next six years for immortality research. Even Robert Ettinger, who previously had exhibited an old-fashioned conservative fear of political power, declared he was willing to compromise on "some sort of social-security program for cryonics insurance."

"Do you think it's the government's responsibility to freeze everyone who wants it?"

"There is no one in the world who knows more about death than the United States government," he replied.

"So what you're saying is . . ."

"What I'm saying is we should let the experts handle the situation. You don't call the plumber in to fix your television set, do you?"

"Of course not."

"Neither should we let amateurs administer the national death program. It's a job for politicians."

Other immortalist spokesmen, while maintaining that it would be best to finance everything privately, as the

Brazilians had done so far, were secretly worried that the Russians would win the Immortality Race unless the federal government played an active role. Curtis Henderson was asked to testify before a Senate Subcommittee on Immortalist Phenomena.

"Do you believe the Russians are freezing their leaders in the hope of bringing them back some day?" he was asked.

"You said it, not me," he replied.

It was difficult to determine who was for and against what on purely ideological grounds. Some congressional liberals were in favor of a government-subsidized cryonics program, while others wanted the money spent to manufacture corduroy jockstraps (there simply *were* none on the market, so *somebody* had to fill the vacuum if private enterprise failed to meet its responsibilities).

Some conservatives claimed that a crash federal program in cryonics research was vital to national defense (or national honor, at least) unless we wanted to see the Russians bring the first man *back*, and others were opposed to the whole idea as a slap in the face of God Almighty.

"By God! If we permit the Reds to bring the first immortalist back to life, there won't be a man, woman, or child in this country who'll be able to say: 'I'm proud to be an American.' "

"The Senator from Louisiana is overwrought. I think somebody should bring *him* back to life."

"My colleague from Minnesota fails to understand that the Cold War between the Russkies and the United States has entered a new phase. We're now in the *cryonics* stage."

"I'm in favor of a unilateral withdrawal from the immortality race. We must begin at once to dismantle our Forever Flasks."

"What about those who have already been frozen?"

"Let them rot like everyone else!"

"Here, here! That's cold-blooded murder."

"I'd like to put you on ice, you addle-brained Neanderthal!"

"Bleeding-heart pinko! *Mothermelter!*"

It was a fascinating debate, televised live to cities and villages around the earth, even to some primitive societies, which had yet to master the art of freezing water, let alone people.

Perhaps the stalemate would never have been broken if David Friedman, son of economist Milton Friedman, had not come forward with a proposal that proved acceptable to everyone. Friedman demonstrated mathematically how private enterprise could guarantee virtually free immortality to everyone who wanted it.

This placated the liberals who had been terrified by visions of proletarian hordes rising up *en masse* to burn down cryonics centers unless the government provided free freezing for oppressed minority groups, and it also assuaged the concerns of conservatives who had long believed that private industry could solve all the problems of humanity—though they had never been able to show how.

The Friedman program was based, quite simply, on the Mike Todd principle: E + P = PG or Entertainment + Pizazz = Profits Galore. Friedman suggested that the United States government drop all its shady conniving behind the scenes and immediately produce the Greatest Show Ever Seen on the Face of the Earth.

The politicians, instead of wasting all their time creating blue-ribbon committees and research teams, which invariably wound up fighting among themselves and accomplished nothing, would stage the most spectacular television extravaganza ever dreamed of. The program would be marketed pretty much the way heavyweight championship fights were in the 1970s. It would be shown live on closed-circuit television in movie theaters throughout the world. Cable-television companies would also pay a hefty price for first serial rights.

The idea was dynamite, a guaranteed, sure-fire success. With only 500 million people, a conservative estimate, paying upwards of ten bucks apiece to watch the show, more than $5 billion would be raised overnight. Do you know how many people you can freeze and store with that kind of money? Fantastic!

For a modest sum per person the entire world would have a chance to see, live from Washington, the first thawing and reanimation of a human being in history. It was an honest piece of business, a novel experience for politicians anywhere on earth.

"It seems to me our main problem now is deciding just *who* should be defrosted."

"I don't see why that's so important. Why don't we pick a name at random?"

"Hell, man. You can't defrost just *anybody* and expect the whole goddamn planet to stop fighting for twenty-four hours just to watch it!"

"You've got a point there, Mel."

"Who the hell would stop his wheeling and dealing for an *hour* to watch Frank Onderdonk of Upper Sandusky, South Dakota, come back to life?"

"Mel's right. We need a name."

"Why don't we freeze somebody alive—the Secretary of Defense, for example—and then thaw *him* out on television?"

"He's already been approached, I'm afraid."

"And?"

"Prior commitments. Too bad."

"How about the Vice-President?"

"He's expected to be 'out of town' for the next few years. That's the word from his office anyway."

"Well, what the hell? That's no way to run a government. If we can't demonstrate patriotism at the top level, how can we expect the rabble to stay in line?"

"Got any suggestions?"

"What have *you* got on tap for the next few weeks?"

"Heavy work load, I'm afraid. My constituents would never stand for it. What's wrong with you? You're the one who got this whole thing started in the first place."

"I learned in the army never to volunteer for anything."

"Well so much for loyalty. We'll probably have to *draft* somebody for the project."

"Maybe not. I think the answer's right under our noses. One of the most beloved men in American history has *already* been frozen. I think we found our man."

Who would be reincarnated?

The most popular man who ever lived, that's who.

The first man brought back to life from the deep freeze would be none other than Walt Disney himself.

You sit there fuming in front of the microfilm machine. Suddenly you leap up and charge toward the librarian.

"Why couldn't they have picked me? What am I, a nobody or something?"

"Please, sir. You're disturbing the other reincarnees."

"I wasn't good enough for them. *Me* they let freeze my ass off for seventy-four years!"

"Will you kindly restrain yourself?"

"It's the same old story: them that has, gets. The rest of us have to stand in line for a few hundred years."

"Do I have to call the guard?"

"It's not fair, that's all I have to say. Not fair at all.

Reluctantly you trudge back to your booth. It's not fair but there's nothing you can do about it now. You can't rewrite history. Might as well see how it all turned out.

13

The Star-Spangled Savior

Now the stage was set.

In 1990 President John F. Kerry, midway through his first term in office, gave the go-ahead for the reanimation of Walt Disney on worldwide television.

If anyone could have got the idea across to the American people, it was President Kerry. He had style. He had charisma. He also had a rather droopy look around the eyes, which his cosmetician had been working on for quite a while, but by this time the American people preferred a man who looked as though he were sleeping in office. They had had enough of activist presidents to last a lifetime already—even an eternal lifetime.

Midway through the year, July 4, 1990, to be precise, television and radio crews from every country on earth rolled into Washington, D.C., for the great extravaganza. The hotels had been booked solid for months in advance. Washington took on the atmosphere of Cape Kennedy during the first moonwalk launching in 1969. Even though most of the visitors would never get close enough to actually witness the big event, they wanted to experience the feeling of "being there" when history was being made. (Years later, of course, they would all tell their grandchildren they had ringside seats.)

You could smell the excitement in the air. The streets were clogged with millions of people milling slowly toward

Lincoln Memorial, the site of the festivities. Was there a single person in the crowd without a hot dog, a slice of pizza, a Good Humor rainbow cup, a fistful of cotton candy? Hardly.

The sun pulsed overhead, shedding warmth on the day's proceedings. The weather was literally tailor-made for the occasion—by Buckminster Fuller's sunshine machine, patented ten years earlier. The rest of the country was digging out of the first summer snowstorm in the nation's history, but in Washington that memorable Independence Day of 1990, the weather was clear and balmy.

Across the entire face of the planet, virtually all activity came to a standstill. The television audience for the occasion approached a cool billion, nearly double the original estimate, and scalpers were able to charge as much as $500 apiece for choice theater seats.

Piles of lira, yen, pounds, and American greenbacks were being raked in hand over fist by shrewd entrepreneurs everywhere.

At precisely two o'clock in the afternoon, the Forever Flask containing Walt Disney was wheeled onto the steps of the Lincoln Memorial. The President of the United States was on hand, as was the octogenarian Vice-President, former Governor of New York Nelson A. Rockefeller. The Vice-President, long criticized by both liberals and conservatives as a crafty opportunist and political weathervane, had finally emerged as a serious contender in the Presidential sweepstakes already forming up for 1992.

The polls showed him running a close third behind the President and Councilman Hubert Humphrey of Minneapolis, Minnesota.

The armed services were represented in all their resplendent glory—marching bands, drill teams, and honor guards from every branch. It was a proud day for Americans; there was hardly a dry eye throughout the land.

As the key moment approached, the world grew tense.

You could feel it in the air, in your guts; you could taste it in your mouth. By 2:45 P.M. the temperature in Disney's giant thermos had been raised to -10 degrees F. By 3:10 the cryostat registered +17 degrees F. At 3:52 it leveled off at 73 degrees F., the same temperature as the air around it.

The time had finally arrived.

The privilege of opening the flask and peeling off the aluminum foil encasing the body was given to the Vice-President. In fact, President Kerry *insisted* that the Vice-President accept the privilege.

Much to his credit, the crusty elder statesman fell to the task without hesitation. Piece by piece the foil was stripped away. At exactly 4:26 P.M., on the afternoon of July 4, 1990, the body of Walt Disney lay exposed in his thermos on the steps of Lincoln Memorial in Washington, D.C.

The giant figure of Honest Abe stared benevolently at the world from his perch above the flask.

Disney lay immobile. A team of physicians surrounded him, checking for any signs of life. President Kerry suffered a moment of panic. Only now, for the first time, did he think of what might happen if Disney failed to get up. The ridicule. The financial disaster. The greatest flop in the history of the world. Oh, my God, what a turkey this might turn out to be.

"Rise, you son-of-a-bitch! You owe it to your country," he almost yelled. He was visibly overwrought.

For his part, the Vice-President smiled smugly to himself.

"Serve him right if Disney melted like a cake of ice. I never did like all those silly talking animals anyway."

Kerry was about to rush forward and shake the body when . . .

The form within seemed to quiver slightly. The eyes of the world were glued to Disney's Forever Flask. Did he move? Did his head roll slightly from side to side? Now there was no mistake about it. A shoulder twitched. A hand moved up along his side.

His eyes were open!

DISNEY LIVES!

He lifted himself up on an elbow, stifling a yawn with the back of his hand. Tears of uncontrollable relief welled in President Kerry's eyes. The Vice-President stiffened in surprise, seemingly adding another twenty years to his youthful old-man's body.

Finally one of the physicians stepped forward to assist the struggling *reanimato.* Disney sat up, gazed about quizzically at the assembled cameras, reporters, military bands, and various dignitaries, then rolled over as though he were going back to sleep.

Reporters from a dozen networks leaped forward and surrounded the flask, their microphones thrust forward and cameras clicking like machine guns.

"Mr. Disney! Mr. Disney! Do you have any words for our audience?"

"The whole world is watching, Mr. Disney. You're on worldwide television."

Disney looked up and then he started to rise. A moment later he was standing in his opened flask, staring into the cameras carrying his pink and ruddy visage into theaters and homes across the globe.

"You've just been brought back to life, Mr. Disney. Do you have any message for the world?"

"I am the Way. Come follow me," he said.

A billion citizens of earth gazed at his image on the screen and gasped in awe. Many millions, it was reported, actually fell to their knees and banged their foreheads on the floor.

The first *reanimato* in history commanded a stature and respect that kings, emperors, and popes had dreamed of since the beginning of time. Ever since the first two people appeared on earth and one tried to gain power over the other, divinity had been the highest aspiration of man. Jesus

of Nazareth had come close to achieving it, but his reincarnation had never been more than a word-of-mouth revelation. There had been few firsthand witnesses.

Now a man had returned from the grave, and his reincarnation was witnessed by the entire world. There was no question of taking him merely on faith.

"I am the Way. Come follow me," he had said—and a new religion was born on the steps of the Lincoln Memorial—the cradle of the modern world, if you will. The only question that remained was exactly *where* Disney intended to lead his flock. Not since the Howard Hughes hullabaloo of 1972 had one man caused such a sensation among the multitudes.

The *reanimato* was noncommittal at first. He spent his first few months back among the living in seclusion, studying world developments since his clinical "death" in the 1960s.

The Americans landed a man on the moon in 1969, he discovered—and he thought that was good.

An anti-aging pill had been put on the market in the mid-1970s—and he thought that was good.

The first cattle and sheep were cloned in 1979, relieving hunger problems throughout the world—and he thought that was good.

Biofeedback techniques had been mastered by millions, and disease had been virtually eliminated from much of the earth by 1982—and he thought that was good.

Hibernation centers had been established in a hundred cities by 1983 and, as a result, old-age infirmities had been drastically reduced—and he thought that was good.

Population growth had been brought under control in most countries of the world by 1984—and he thought that was good.

The laser had replaced nuclear power as a weapon of defense by 1985—and he thought that was good.

Synthetic organs were being used universally in transplants by 1986, and proved to be almost 100 percent effective—and he thought that was good.

International cooperation to control pollution had become routine, and by 1987 environmental pollution was no longer a serious issue—and he thought that was good.

By 1988 most childbirths were performed *in vitro*, and genetic defects had been reduced by 72 percent—and he thought that was good.

In 1989 a team of Russian, American, Chinese, and Japanese scientists established the first permanent village on the moon—and he thought that was good.

In 1990 he had been successfully reanimated from a state of cryonic suspension—and he thought that was *especially* good.

But other things were not so good. Housing in most urban centers was fit more for rats than human beings. American schools and universities were cranking out one generation of illiterates after another. The cultural tastes of the masses continued to hover at a level somewhere between Lawrence Welk and Doris Day. Traffic patterns in most countries tended to resemble forty Japanese beetles trying simultaneously to struggle through the neck of a Coke bottle. People three shades darker than tan were still considered inferior to household pets in most societies of the world. Rape, mugging, assault and battery, stabbings, and more exotic forms of violence continued to be more common than the common cold, despite all the technological advances that had been made.

No, some things were not so good, and it was long past time for someone to come along and do something about it.

On November 4, 1990, Disney held his first press conference since coming back from his cold sleep. As was to be expected, the event was well covered and televised live throughout the globe.

"What do you intend to do now that you're back, Mr. Disney?"

"There is definitely a need for my services."

"Are you going back to the entertainment business?"

"Entertainment! Maybe you think Mickey Mouse is funny. To me he was like a son."

"Then you will continue the work you have already done?"

"I intend to start a new family. Mice, bunnies, ducks—they were only the beginning."

"Are you going to build a new Disneyland, sir?"

"Disneyland was small potatoes. Now it is time to expand."

"Expand where?"

"Everywhere. Why stop when you've got a good thing."

"Do you think the world is ready for you now?"

"I am the Way. Come follow me."

14

Disney's Dream

The 1990s, under the leadership of the world's first *reanimato,* marked the beginning of the anationalist age.

Disney was not the first to set up headquarters at sea. In 1975 Burlington Industries became the first corporation to build an island headquarters in the Atlantic Ocean, two hundred miles east of New York City. There, in international waters, the company was no longer subject to the laws of any nation and was free to trade in the international marketplace without restrictions.

Later in the decade, an offshore complex, which included a jetport, nuclear power plant, waste disposal center, and deep-water seaport, was built off the eastern tip of Long Island. The ostensible reason for this was to relieve air-traffic congestion on land, but when the Mayor of New York City moved his administration to the island complex, the true reason became apparent: life on land was no longer fit for even dogs or politicians.

Developers in Cleveland and Chicago followed suit, constructing jetports and power plants supported on caissons in Lake Erie and Lake Michigan. Throughout the 1980s several other companies set up shop off both the east and west coasts of the United States, and six more jetports were established offshore.

But not until 1991 did the concept of *anationalism*

finally take hold. By moving out to sea, Disney wasn't interested merely in escaping tax laws. It wasn't just freedom from bureaucratic regulation that he was after. The vision Disney had in mind went way beyond these noble, though limited, aspirations.

Disney's dream was the creation of complete and independent parallel societies, which would, in effect, compete with governments throughout the world. The concept of multinational or international corporations was obsolete before it really got started in the mind of the *reanimato.* Disney envisioned a series of island communities complete with housing, schools, shops, hotels, industry, theaters—everything necessary for comfortable human existence—in international waters all over the globe.

They would not, of course, be subject to the laws of any nation. They would be free to trade among themselves and also with existing nation-states, whenever it was possible. These island societies would, in a sense, be proprietary communities developed and managed by Disney Enterprises, which, in another sense, would become a giant landlord over a new, anationalist, sea-borne world society: floating Lefrak cities on a grand scale, so to speak, with total ocean living for everyone.

When word of exactly what Disney was up to finally got out, sparks began to fly in virtually every country on the planet.

"Disney is a fascist!"

"Nonsense. He's an anarchist."

"I propose we extend our national limits 2000 miles out to sea. This way we can claim sovereignty over Disney's islands."

"Your country isn't even two *hundred* miles *long.*"

"Disney is trying to turn the whole planet into a giant shopping center."

"He's trying to become the world's first earthlord."

"He must be stopped. If he has his way, the oceans will be filled with Jerome Mackey judo schools."

"And penny arcades."

"And Fred Astaire dancing schools."

"And psychedelic pizza parlors."

"That's what I mean: Disney is an anarchist."

"Bullshit! He's a Nazi."

"The whole planet will look like a Macy's Thanksgiving Day Parade."

At this point the ambassador from the Soviet Union suggested that the establishment of One World Government, discussed for decades in government and academic circles, was long overdue. Only by creating a World *Presidium* with jurisdiction over the entire planet could counterrevolutionary schemers like Disney be stopped.

"I object to the word *Presidium,*" said the British ambassador. "*Parliament* has a more democratic ring to it."

"Ze Vun Vorld Government muzz be called a *Knesset!*"

"The bastion of the free world is the United States. I propose that we create a World *Congress.*"

The Chinese delegation remained silent, figuring they would overthrow whatever group came to power anyway; and the Italian delegates fought among themselves, kicking and punching in the aisles, and casting aspersions on one another's ancestry.

As the debate raged inside the towering glass walls of the United Nations, Disney proceeded to build.

His first island community went up in the Atlantic, sixty miles southeast of Martha's Vineyard off the coast of Massachusetts. His second was built farther out to sea, another hundred miles east southeast of the first one. As construction of the third ocean community began, Disney discovered he was no longer alone in his rush to create an anationalist empire. Competitors were now entering the market, timidly at first, then more boldly, even as the governments of earth debated their fate at the UN.

Hughes Industries, Helmsley-Spear, Lefrak, Levittown, Boise-Cascade, and other companies airlifted platforms out

into the Atlantic, erecting modular cities in a matter of months. Some had already inaugurated STOL (Short Take Off and Landing) transport services, free of charge to prospective tenants, in a mad race to populate their communities faster than the others could.

Within the space of thirty-six months, a veritable man-made archipelago had been built, beginning from a point sixty miles off Martha's Vineyard and extending in a wide arc all the way to the Straits of Gibraltar. A similar network running from southern California toward Hawaii was also in the works.

On March 8, 1994, the United Nations passed a resolution calling for the creation of a One World Governing Body with full authority over the entire planet. The World *Parlgressidium*—a designation finally agreed upon by the various delegates—would consist of 211 members, one each from every nation on earth. There would be, in addition, a five-man executive board comprised of the chief executives of the United States, Russia, the European Commonwealth, China, and Japan, with veto power over the legislative body. A World Court would also be established, which would serve as the final court of appeals in all judicial matters.

"Each nation will select its officials by majority vote."

"My country prefers a representative democracy."

"In my land we have always depended on a military coup."

"One-party rule is the most effective way of governing any society."

"Your country is the size of *my* country's postage stamps."

"I think we need a dictatorship here right now. That's the only way to deal with you racists."

It was a comprehensive plan, thorough in every detail. It was democratic, fair, and tough at the same time. Everyone would have a say—to some extent, at least—in deciding

which people would dictate the fate of the entire planet. It was a bold, daring, adventuresome proposal, highly innovative and imaginative—even revolutionary—in all its implications.

Disney and the rest of the maverick developers who were attempting to make a mockery of established authority would be given six months to dismantle their sea-borne monstrosities—or be blasted right out of the water. Enough was enough already. Give a hooligan too much rope, and he tries to hang you with it.

The resolution was read live on global television on April 15, 1994. The only problem was: no one seemed to be watching. Where the hell was everybody anyway?

As it turned out, Disney had picked that day to throw a monumental bash on Ocean Village One. There was STOL service from most areas of the globe, and helicopter shuttles from the United States mainland. Who wanted to stay home and watch television when there was a party like this to go to? It was Ringling Brothers, Barnum and Bailey, and all the World's Fairs in history rolled up in a single happening.

Friedman wasn't the only one who had discovered the formula E + P = PG. Disney was a past master at it.

The mobs flocked in from every nook and cranny on earth, some with their life savings in tow. More lucre changed hands that day than an any other day in memory. Parades? Candy canes? Balloons? Trombones? All the trappings of manufactured gaiety were present in spades. President Rockefeller (elected by a hair in 1992) wanted to send in the Marines to break up the affair; the Secretary-General of the UN thought it best tc land an international task force to avoid the stigma of "U.S. imperialism."

But they discovered too late that Disney had hired the Marines and Green Berets to police his own operation. Cagey entrepreneur—he had anticipated something like this. Most of the world's military personnel were now working for anationalist developers, who, after all, paid them much

more than the current minimum wage. The politicians of the earth were virtually unprotected. They were at the mercy of every thug and rapist who wanted to have at them.

The United Nations sent out an appeal to the masses. We offer you stability, the security of international law and justice, protection from our common enemies. What do they offer? Parades? Gimmicks? A lifelong sideshow? They're turning the whole planet into a great big funhouse.

The consensus was, however, that the people preferred the earth as a great big funhouse than as a great big lunatic asylum.

Within a year one of the largest migrations in the history of mankind was well under way. The whole world was going anational—all because of the wacky dream of the world's first reincarnee.

Reanimation and anationalism all before the turn of the century. What, pray tell, could the future hold after this?

"So this is what I've returned to," you say, turning away from the viewer. "Where's my flask? I want to go back."

Now you've done it. The librarian is giving you that I'm-going-to-call-the-guard look again. But you're determined to have your say.

"Is this what I can expect to find when I go out there? A One World Disneyland?"

"You should consider yourself fortunate that we've been able to resuscitate you. Do you know how many others are still suspended because we can't bring them back yet?"

"Who needs it? This is what I paid good money to come back to?"

"You haven't even reached the twenty-first century yet. Why don't you at least wait until you finish before you start complaining?"

"I'll finish, but I don't think I'm going to like it. I can tell you that right now."

"I'm afraid I'll have to ask you to lower your voice."

"All this high-rise plastic and glass. What ever happened to *real* walls and ceilings?"

"I'm going to call the guard."

"Even before I died, you could hear people spitting in the next apartment."

"Do you want me to call the guard?"

"Today you can probably even *see* your neighbor going to the bathroom."

"Guard!"

"All right, all right. I'm going back to the history machine."

"Finally."

"But I know I'm not going to like it."

15

Wither Goes the State

Many attractions on the ocean communities lured the masses away from their landlubberly existence.

Cleanliness, for one thing. The streets, buildings, and arcades, manufactured of a tensile synthetic material, were washed down once a week by artificial rainfall and were virtually spotless. All the Disney communities and most of the others were dome-enclosed and therefore spared the ravages of natural storms and winds. The temperature on each island was controlled by a universal air-conditioning, air-purifying system.

Approximately one-third of the ocean communities had facilities for year-round sports activities. Ocean Village Three was divided into two broad compartments. Half of the island was winterized, and the temperature was maintained at a steady 30 degrees F. throughout the year. The winter side of the island contained man-made mountains with manufactured snow for skiing and tobogganing, and man-made lakes for ice skating and ice sailing. Swiss chalets dotted the hills, many serving as permanent residences for those who never cared to see a beach as long as they lived.

The other half of Village Three was a virtual year-round summer paradise for inveterate sun-worshipers. The temperature here was kept at a constant, low-humidified 76 degrees F. The edge of the island was an unbroken rim of

pure white synthetic sand, and the dome extended a thousand yards into the ocean and regulated the size of the waves that rolled onto the beaches. Most of the homes on this half of the island were condominiums in Riviera-style high-rises overlooking the water.

Residents, of course, were perfectly free to move back and forth from summer to winter as the mood struck them.

Population was more or less stabilized through a declining birthrate, and the annihilation of some of the people by accidents, random violence, irreparable murders, and so on. Fear of being subjected to a traumatic incident was perhaps the single greatest burden of the time. Aging was no longer a problem, but no anti-aging therapy in the world could eliminate the chance of accidental death.

Other ocean communities had regulated seasons, offering perfect winters, springs, summers, and falls to those who preferred the seasonal cycle. Many contained artificial streams and brooks stocked with trout for fresh-water fishermen. They also had two or three community beaches, evenly spaced around the island, and winter sports in season for those who wanted it.

Industry was welcomed with open arms, and most companies were happy to take advantage of the free-wheeling economic environment provided them in the anationalist societies. There were no taxes for anyone, and no restrictions on anything except aggressive activities. The developers operated the communities strictly on profits from the sale and rental of space on the islands, and were able to hire their own police patrols and panels of arbitration to keep the peace.

Many services of an earlier era were simply rendered obsolete by technology. Fireproof synthetic building materials eliminated the need for fire protection. Everything was recycled, and garbage was purified and pulverized, then manufactured into something of value.

Water, as might be expected, was no problem whatso-

ever. Some island communities had central systems that distributed desalted water throughout the island, then treated and recycled it continuously for the entire community. In the more modernized villages, however, every unit of housing had its own self-contained water supply, which was used over and over again.

Oddly enough, quite a few people objected to the latter system on the grounds that they didn't like the idea of drinking their own urine, however purified it was.

"I get nauseous every time I look at a glass of water."

"You're being unreasonable. It's perfectly safe."

"I know it doesn't make any sense, but I can't help it. It's the *idea* that bothers me."

"But it's our own, Mildred. Our own."

"I'm sorry. That's the way it is."

"Before, with the central system, we were drinking everybody *else's*."

"At least then we didn't have the purifying unit in the house to *remind* us."

Another great feature of the island communities was the virtual absence of moving vehicles. The sidewalks were actually elongated conveyor belts that moved people along at a leisurely rate; overhead promenades for walking were festooned like spider webs above the ground. Some of them offered a literal bird's-eye view of the entire island.

For longer transportation, moving roads whipped people along at an accident-proof 130 miles an hour. You simply pressed a button at authorized locations, and strapped yourself into a fully enclosed booth, which was programmed to accelerate onto the beltway without bringing it to a stop. To get off, you punched your exit number into the programer and glided smoothly off at the desired location.

For those who insisted on maneuvering their own machines, amusement parks provided dummy streets with old-model Fords and Chevrolets, where people could rip

around corners to their hearts' content. These were especially popular with older residents, much as the "kiddy car rides" had been forty years before.

Many sexual hangups were eliminated on the islands by the invention of one of the most startling pieces of equipment the world had ever seen. Outlawed in almost every nation-state on earth, sex dolls were manufactured and sold openly on all the ocean communities, beginning around the middle of the decade.

Life-size reproductions of the most famous personages in history, remarkably real in appearance, and complete with synthetic skin and sexual organs, were available to everyone with $50 in his pocket. Anyone, no matter how fat, short, unattractive, or ungraceful was finally able to act out his or her sexual fantasies with almost real Brigitte Bardots, Alexander the Greats, Cleopatras, Rudolph Valentinos—all the classic sex objects who ever lived.

The International Society of Psychotherapists had lobbied against legalization of the dolls for over five years, and had managed to keep them off the market in every country except Denmark:

"The dolls are regressive. They're not serving the public interest."

"Sex crimes are down 72 percent in the societies that use them."

"Maybe so, but they only cure *symptoms*. They don't get at the real causes of sexual aggression."

"So what? You've been treating symptoms for years. Who cares about causes?"

"Nobody *knows* from causes, that's the problem. We need massive federal assistance to help us study causes. Besides, schmuck, if this doll business gets any bigger, we'll all be on welfare in six months."

Despite their efforts, however, by 1995 the market was wide open in Oceana (as the anationalist communities were

called), and most forms of neurosis seemed to disappear overnight. Psychotherapists did make a last-ditch effort to compromise.

"Okay. So sex dolls are here to stay. But they should be sold only by *prescription.*"

"Sorry. It's too widespread to control it now."

"What about decency and morality?"

"What morality? Most people have so many synthetic organs in them now, you can't tell who is real and who is artificial anyway."

By the end of 1995, cryonics, cloning, biofeedback, and hibernation were all routine. Food production had entered an age of post-scarcity with cloning techniques. But do you think this satisfied the consumer? Not at all. Once something has been established and all the kinks have been worked out, it is no longer revolutionary and exciting. People begin to take it for granted.

"Filet mignon is up to forty-nine cents a pound."

"My God! It was forty-seven only six months ago."

"Inflation is killing the middle class. The racketeers create an artificial shortage and get rich while everybody else suffers."

"I understand they used to pay three dollars a pound back in the seventies."

"Sure. But those were the days when a buck was a buck."

Also by 1995, half a dozen people had been reanimated in the United States, and at least a dozen more returned to life in South America, Europe, and Asia. No one bothered to keep score any longer.

The same thing had happened with the moon landings back in the 1970s. The first one was a novelty; it brought the entire planet to a virtual standstill. By the time the second group went up, most people preferred watching a football game on TV instead.

Did the human race achieve immortality by the year 1995? Probably not a single person could have given a definitive answer. All anyone really cared about was having a chance to come back again personally someday—and that meant having themselves frozen instead of buried or incinerated when it was their turn to cash in their chips.

In the meantime they popped their anti-aging pills along with their daily vitamin tablets, hibernated two or three weeks a year, regulated their bodily functions with brainwaves, and went about their business without giving a moment's thought to immortality—until something went wrong. Then they ran off to the nearest biochemical center frantic for advice on how to keep the old machine pumping a bit longer.

Actually, it is virtually impossible to come up with a specific date as to when or if the human race had irrevocably conquered death. All anyone knew for sure was that it was possible, by 1995, to stave off clinical death for a hundred and ten years or so with the systematic use of hibernation, transplants, biofeedback, and the pill, of course, which was being improved all the time.

When the Grim Reaper finally did strike, cryonics provided a second lease on life sometime in the near or distant future. But how long the machine could be kept in motion, how many resurrections it could stand along the way, nobody knew for sure.

Indefinitely?

Probably two or three hundred years would have to pass before anyone could even begin to answer knowledgeably. But for the sake of historical perspective, 1990—the year the first man was resurrected from cryonic suspension—has to go down as the year the human race crossed the threshold of the immortalist age.

That year would go down in history as marking the final disintegration of the nation-state as a political reality.

Oh, governments did continue to exist well into the

twenty-first century. There were still a few around as late as 2048 A.D. Many people were reluctant to give up the old traditions and voted religiously in every election from the Presidency down to justice-of-the-peace. Every crook and schemer who came down the pike promising free fur coats or free Rolls Royces for everybody was assured of rounding up a few thousand votes.

"It's a national disgrace that, in the wealthiest country on earth, 32 percent of the people have to go without mink coats in the frigid blasts of winter."

"Did you hear that? Isn't that horrible?"

"Even today there is so much want in the midst of abundance."

"The *other* America nobody ever talks about."

"If I am elected to the Senate, I'll see to it that there are two fur coats in every closet in the country."

"Now that's what I call a bargain."

"Big deal. That other fellow, what's his name, is going to give everyone free government-paid vacations in Honolulu."

"I'd rather take the cash instead. This way we can buy a condominium in Disneyland."

Despite it all, however, political office had started to decline in importance and real power by the end of the century.

The population of the nation-states decreased tremendously between 1995 and 2005. During this decade close to a billion people left their native lands and took up residence in some part of Oceana. The United States alone registered fewer than 180 million people in 2005, well below the level it had attained forty years before.

Perhaps the single most important factor in the collapse of the nation-state was the wholesale migration of industry from the mainland to the anationalist communities. By 2005 nearly three-quarters of the earth's business was being conducted on Oceana. There simply were no jobs in the

nation-states, even for diehard nationalists who refused to move. As the population level declined on the mainlands, the unemployment rate increased tremendously—approaching nearly a third of the work force in the Western nations and an even greater percentage elsewhere.

As tax bases evaporated on land, governments found themselves bankrupt. Their monetary sources had dried up almost overnight. Combined with this, more and more people were forced onto the public dole because of rising unemployment. Taxes on those who did manage to find work became almost totally confiscatory, and drove many of the remaining wage earners reluctantly out to sea.

When Joseph Kennedy III was elected for a second term in 2004, the Presidency was no longer the political plum it had been as late as fifteen years before. No one seemed to pay much attention to politicians any longer. Most important affairs of the human race were now conducted outside government circles, and much of the new legislation passed by political regimes around the globe was simply ignored.

Irony of ironies: government began to die out at the same time that people discovered how to live. After all the political movements and revolutionary plots of the past, the state was indeed withering away—though not in the manner anticipated by Karl Marx a hundred and fifty years before.

16

Walking the Strate and Naro

Education became possible for the first time during the early years of the immortalist-anationalist age.

There had been much experimentation in education prior to this period with "progressive" techniques such as open classrooms, decentralized schools, and community control, ad infinitum, but schools had been, for the most part, little more than day-care centers, where children stayed while their parents went about the business of earning a living. The amount of knowledge actually transferred from one mind to another was inconsequential.

A breakthrough of sorts was achieved around 1970, when the concept of educational television was tried on an experimental basis. Programs designed to teach children the rudiments of language and arithmetic seemed to be successful and were expanded over the next few years. Television was beginning to accomplish what schools had not been able to do.

It was teaching children to spell their names and count their toes for the first time in American history.

Educators throughout the world were so overwhelmed by this new advance that they began seriously to question some of their old practices. If television could teach children the alphabet, if it could teach them to count all the way

up to double figures, it might conceivably be capable of teaching them to read complete words someday. An international conference was held in Geneva, Switzerland, in August 1975, to discuss the revolutionary impact of television as an educational tool.

Unfortunately, the spirit of international cooperation was somewhat dampened by an unpleasant event taking place in the streets outside the conference hall. Sidney Fletcher's Teachers Liberation Front decided to protest the conference and set up picket lines around the block.

"Educational television," according to Fletcher, "means the end of the teaching profession as we have come to know and love it."

"But, Mr. Fletcher, children everywhere seem to love television."

"The boob tube dehumanizes education. It substitutes a cold, unblinking machine for a real, live, blinking teacher who can personally relate to every student in the classroom."

"But the kids *hate* teachers. What kind of relating do you call that?"

"What do kids know from relating? They're there to learn, not to relate. The *teacher* relates."

"Children are *learning* more from television than they do from teachers."

"Look! The security of teaching as a profession comes before education."

"Take it easy, Sid," an aide whispered frantically.

"I don't intend to sacrifice our right to earn a living so a bunch of snotty kids can learn to spell their names properly. Job security comes first!"

"Now you've done it, Sid."

And so the debate raged on. But despite the efforts of the TLF, television continued to supplement classroom edu-

cation. By the end of the 1970s, educational cassettes that could be played on newer-model television sets were available on the market. Over the next few years educational records and tapes broadened horizons even further, and companies started to manufacture a complete line of educational products for television, phonographs, tape recorders, and home movie projectors.

By 1986 school attendance was no longer compulsory in the United States and most of the European Commonwealth.

Higher education was also subjected to major innovations during the same period. Teaching declined as a full-time profession; instead students began to hire professionals in all fields—engineering, physics, writing, music, etc.—to tutor them for a specified time. In a sense, the "deuniversification" of higher education was a throwback to the old community-of-scholars concept, which had its roots in medieval Europe, when groups of students with similar interests would literally sit at the feet of the master—a highly regarded expert or specialist in a given field.

Over the years, of course, tenured professors had become nonworking academicians, who obtained all their knowledge from textbooks written by their colleagues rather than from firsthand experience.

But only with the birth of the immortalist-anationalist era did all these educational trends came to full fruition. Schools, as such, simply did not exist in Oceana. Technology was given full rein, and the motivational aspects of education were clearly understood for the first time.

Children apparently preferred to learn the alphabet from Bugs Bunny on television rather than from a bored slattern droning away at the front of a classroom.

Mickey Mouse, Donald Duck, Elmer Fudd, and Pluto, the talking dog, became more than comic-strip characters. Dressed up in teachers' robes, they were trotted out before the children of Oceana on the electronic media to teach

them certain facts about existence. And it seemed to work.

By 2010 Oceana had already established itself as the first semiliterate society in human history.

Another major breakthrough was achieved in Oceana when censorship of the media was abandoned.

There had been predictions as early as the late 1960s that eventually cable television would make it extremely difficult for government effectively to monitor radio and television programs. Before cable television there were only a few channels, even in large cities such as New York, and the federal government had firm licensing control over all of them. By threatening to cancel network licenses, the government had indirect censorship authority over the media, even though our "open society" permitted freedom of the airwaves.

Cable television and satellite relays were going to change all that by providing the public with an almost infinite number of channels and stations. For the politicians to censor all of them would be equivalent to blocking every bullet fired from an automatic weapon (not a bad prospect when you stopped to think about it). Theoretically it all made a lot of sense.

In practice, however, the federal government still held the Damoclean sword of censorship over the media, granting monopolistic licenses to various cable companies the way it did with public utilities and making it illegal for competitors to enter the field.

The promise of unlimited communication remained only a promise—until the end of the century. The coming of the immortalist-anationalist age finally freed the airwaves from political control and brought hundreds of unregulated channels into living rooms all over Oceana.

However, human nature being what it is, the quality of programs did not change appreciably for quite some time.

"What's on the tube tonight, hon?"

"What's the difference? You just fall asleep anyway."

"Is who's-his-name on tonight?"

"He was on last night."

"How about whatchamacallit?"

"He was on the night before."

"How about . . ."

"Do you mind if I pick a show once in a while? You're not the only one in this house."

"You never pick anything good."

"There's an old Doris Day movie I want to see on channel 164."

"Jesus Christ! Three hundred channels, and half of them are playing Doris Day."

Just as communication barriers fell by the wayside, so barriers to the exchange of economic goods were eliminated by the absence of tariffs, import quotas, surcharges, taxes, and every other political and economic impediment you can think of.

No one saw any reason to impose them.

What this meant was that people could now buy all the junk they had always yearned for but could never get hold of before. They filled their homes with trinkets from Mongolia and the Congolese Republic. They wallowed in rivers of cheap beer imported from Rhodesia and duty-free wine from the vineyards of France. They ordered tailor-made clothing from Indonesia and battery-powered razors from Kenya. The whole world had become a bargain basement store, a continuous George Washington's Birthday sale.

And all the bargain hunters in the world were "saving" money like crazy—and growing destitute in the process.

"Freedom," you mutter to yourself, staring into the viewer. "I knew this was going to happen, with all this talk about freedom."

The librarian looks at you, ready to push the alarm button at any moment.

"I warned them about too much freedom eighty-five years ago," you continue.

"What are you talking about now?"

"The whole world is a wide-open bazaar!"

"You're not making any sense."

"It's a One World whorehouse, that's what it is."

"Are you feeling all right?"

"It's like New Year's Eve with all the clocks in the world stopped forever at midnight."

"I'm afraid I'll have to ask you to be quiet again."

"I warned them about it a hundred years ago—that's all I've got to say."

In a real sense there *was* no tomorrow—not with death about to go the way of the bubonic plague. No death, no tomorrow. All infinity is today. Time itself loses meaning if you no longer have to measure it in wrinkles and gray hair.

All this permeated the atmosphere in Oceana more as a feeling than a conscious awareness. People sensed that a new era was now under way. A threshold had been crossed; an age had been discarded and a new one begun.

With this new sense of life and general feeling of invulnerability, life-styles changed, too. Social relationships became almost totally flexible. With no prospect of permanent death, prolonged marriage occurred only in the case of a genuine romantic bond, while the great majority of partnerships were transient and open-ended.

Bored with old ways and old customs, people began to celebrate their newfound freedom in every conceivable fashion. Dress styles changed drastically, seemingly overnight. Men no longer harnessed their bodies in tight-fitting suits or garroted themselves with expensive silk neckties. Women kicked off their leg-crippling shoes and cinch-

waisted slacks and dresses. Flowing robes became more popular with both sexes, providing as they did a maximum degree of comfort and convenience.

In many anationalist communities, nudity and semi-nudity became fairly common in the warmer zones.

Some of the more asinine predictions of science fiction writers seemed to be coming true when names began to change. John, Bob, Paul, Mary, and Joan were all remnants of a discarded past. New humans (as babies were now called) were labeled (no one "christened" infants anymore) Rodan, Clonix, Klando, Futura, and even a few Thoogs appeared here and there.

"We were the first ones in our condominium to use the name Klando."

"Isn't he adorable? He looks just like Mario."

"He *is* Mario. Didn't you know Mario had himself cloned?"

"No wonder you called him Klando then?"

"Mario wants to transplant his brain in Klando when the boy is twenty."

"Won't that cause complications? I mean, what if Klando objects?"

"He wouldn't dare. Mario intends to make him an offer he can't refuse."

Despite strong objections from grammarians and their ilk, language also changed considerably. English on land and English at sea evolved into two nearly distinct languages in the brief span of twenty years. In the past it had taken centuries for a mother tongue to branch into a separate language—Icelandic from sixteenth-century Norse-Scandinavian, which in turn derived from the original Teutonic; twentieth-century Russian from Balto-Slavic. But in the age of instant global communication, changes occurred in decades instead of centuries.

Articles, by and large, were dropped completely from

language, and spelling became almost exclusively phonetic. A vocal minority objected strenuously:

"This is awful. English is becoming a language for semi-literates."

So what else is new?"

"You don't understand what this means. If the trend continues, we'll all be talking like automobile mechanics."

(This causes you to wince perceptibly as you gaze into the microfilm viewer. "Snooty bitch. Goddamn know-it-all librarian!" you scream, setting your own librarian to vibrating in her chair.)

But history marched on, and night became nite; straight and narrow became strate and naro; although became altho; this is the last sentence of the chapter became this is last sentens of chapter.

17

Lunarland à Go-Go

Just as language evolved into separate branches, so did the human race.

The first permanent village on the moon had been established in 1989 through a combined U.S., Russian, Chinese, and Japanese effort. Plans at the time for second, third, and fourth sites to be developed at five-year intervals, like many well-conceived programs, never left the drawing board, primarily for lack of interest. The first team had barely set up camp on the moon when the world's first *reanimato* was glaring into the cameras on the steps of the Lincoln Memorial.

After that it was a whole new ball game for the human race.

The great migration to the oceans had commenced shortly afterward, and people were too preoccupied exploring this new terrestrial frontier to even think about the moon for the next twenty years or so. It was a question of priorities. The earth's satellite was a source of fascination, a magnificent diversion, when the public was bored with the routine of mundane existence. The creation of Oceana, however, sparked an interest in the mother planet that had not existed since the exploration and development of the American continent. Who cared about the moon when a whole new world was being built on earth?

A new circus had come to town.

Advocates of lunar living were suddenly in the position of trying to sell people on the Mardi Gras when the Olympic Games were about to begin.

"Step right up. Excursions to the moon, cheapest rates available."

"Do you want to go to the moon this year, sweetheart?"

"I believe in seeing our own planet first before traveling above."

"We've already seen all of Disney's islands and most of Boise-Cascade."

"Lefrak's putting up a new one in the Indian Ocean that's going to have a fireworks display every night. Lefrak's Aurora Borealis Village."

"I get migraines from all those damn firecrackers."

"They say it's going to be the most *exquisite* floating village ever built anywhere."

"Cherry bombs? Rockets? Every night? What're you trying to do to me, Doris?"

"Madge and Bruce are going for the grand opening next November."

"So let them. Who needs it?"

"Do you want us to be the only ones in Oceana who didn't go? Is that what you want?"

"Please."

"The *humiliation,* huh. Is that what you want to subject me to?"

"Will you stop, for Christ's sake!"

"You know what Nancy and Vito will say, don't you? They'll tell everyone we didn't go because we *couldn't afford it.*"

"All right, all right. We're going. I just don't want to hear any more about it from now until then."

So forty-eight human beings were camped out on the moon, whipping around earth year after year while the people who sent them up were giving the planet a monu-

mental face-lift. The moon-dwellers sent signals down to earth at regular intervals, requesting instructions from their governments, and were informed repeatedly that the situation was "under careful advisement." Frantically their messages went out—instruct us, advise us, *talk* to us, something, please—but after seven or eight years the moon scientists began to wonder "What are we doing up here anyway?"

It was almost as though they had become pariahs; who on earth wanted to think about the moon?

A sense of alienation set in. By the end of the 1990s the lunarians began to realize that they were completely on their own. They did continue to receive food parcels once a month or so—and periodic messages that the situation was still being studied—but these sounded more and more like token gestures.

In 1997, when they asked permission to return to earth and were told that a new committee was being formed to deliberate their fate, they knew the jig was up.

Fortunately for the moonbound scientists, the Russian and Chinese teams were evenly balanced with men and women. Predictably the Americans were all Pat Boone stereotypes straight out of the Eisenhower era, and the Japanese had sent up a stag party of toothy warriors with the mentality of Samurai vassals. With twelve women and thirty-six men in the group, things were not all that hopeless—particularly since the extended-family concept had taken root a full generation back.

They turned to each other with an urgency that had not been present during their first years together. Now they were forced by circumstance to work as a unit, to develop family and social ties that made them all the more responsible for one another, to function as a dynamic whole and find a suitable means of resolving conflicts if they didn't want to perish. They saw themselves no longer as competing representatives of different nation-states, but as fellow

human beings bound together in a common struggle for survival. And work as one they did, combining their various talents to create a comfortable and exciting new world for themselves.

In 1999 the first human being was born on the moon—the first ever to come into existence with no ties to the planet earth. Many more followed over the next decade as the group was anxious to populate the new society as quickly as possible.

A new race of moon people emerged, separate and distinct from those inhabiting the earth.

Eventually rumors about the physiological benefits of lunar living began to trickle down to earth. As is always the case with rumors, however, it became increasingly difficult to separate fact from fancy.

"I understand the lunarians haven't aged a day since they went up."

"No kidding. I heard they don't have to sleep at all up there since the low gravity hardly wears them out."

"They spend most of their time listening to beautiful music and taking hikes to keep up their muscle tone."

"Not only that. They've all become taller and slimmer because of the low gravity."

"I'm not interested in height anymore. It's not important."

"Of course not, Ronald. That's why you're wearing six-inch spikes."

"Four-and-a-half, and they're only to firm up my calf muscles."

The most difficult adjustment of all for the lunarians was psychological. The knowledge that they were becoming biologically alienated from earth was painful. After having spent so much time on the moon, it would be almost impossible to exist in the gravitational forces of earth—just

as though an earthman should suddenly try to live on a planet with six times the gravity. You might as well expect a drunk coming off a two-week bender with no sleep for days to run a four-minute mile. Even a five-minute mile.

For the new humans born on the moon, the earth would be a forbidding world entirely.

They were *human* beings, obviously, but the evolutionary changes occurring through the years would lead them in an altogether different direction from that of their earthbound cousins. Moonmen would be as different from earthmen as Yiddish is from German, or Oceanic is from the King's English.

Striking a happy balance between boredom and overstimulation has been one of the most difficult chores confronting the human race right from the start.

While most people cannot absorb too much excitement at one time, it is also true that they cannot exist for more than ten minutes without any excitement at all.

No city, however large, can support two circuses simultaneously. But if there is not at least one in town, the local citizens will go raging through the streets bashing one another over the head, crashing cars into telephone poles, and threatening to bomb somebody else's country out of existence.

It was therefore only natural that, once the novelty of ocean living started to wear off and the benefits of anationalism began to grow passé, the natives of Oceana would be restless for new diversions. This state of affairs was reached sometime around 2011 or 2012.

There was nothing to *do* anymore.

People had already accumulated more gadgets and gewgaws from various parts of the earth than they knew what to do with. They had stuck their children with every imaginable moniker they could dream up. There were more news programs and entertainments flowing into their living

rooms than they could possibly watch in a thousand years. They had swum all the beaches, skied all the slopes, ridden all the moving highways Oceana had to offer, a hundred times over.

Olympics? Mardi Gras? Thanksgiving Day Parades? Reanimation?

They were saturated with all this every day of their lives. Many people found escape in excess hibernation, the same way an earlier generation used to fall asleep in front of the TV after dinner every night. It was clearly time for something new to come along. And so it did.

The moon, after fading from public interest for some twenty-odd years, now came back in vogue. People began to talk about it more and more.

"Hey, those people up there got it made, you know what I mean?"

"No headaches, no worries, no cherry bombs and sparklers."

"If they want to see the aurora borealis, they've got a ringside seat for the *real* thing."

"Those lunarians have got a nice, leisurely way of life."

"I know what you mean. On earth it's getting so you have to move further and further out to sea to avoid the rat race."

"Believe me, I'd chuck it all down here for a nice, quiet spread on the dark side of the moon."

It didn't take long for crafty operators the world over to discover what was going on. Somebody stood to make a fortune on the unfulfilled demand for lunar futures if only he moved fast enough. It was as though another gong had gone off around the globe, signaling the end of one period and the birth of a new one.

Some hapless enterpriser tried to market a moonwalk on closed-circuit television; he went bankrupt overnight. It had already been done. You couldn't sell old merchandise to a

public that had seen it all before. But by selling advance reservations directly to the public, you were offering people something new. A new adventure. New scenery. A novel and exciting diversion:

"See the moon at popular prices."

"Special family rates. Bring your wife along at two-thirds fare, and your children at half-price."

"Hi. I'm Thoog. Fly me. Fly Lefrak's Lunarland Express."

"Disney's Funship duz it betr."

"Live it up on Levit's Lunarship à Go-Go."

"Ride the Moonrise Hiway with Boise-Cascade."

The entire planet was astir, and just in the nick of time. Having grown dangerously bored over the past three or four years, residents of the various ocean villages were beginning to view one another with some measure of hostility. Rivalry set in, the way it had among nation-states throughout history. Disney's Ocean Village Four was accused of dumping shoddy watches in the Levittown communities. Helmsley-Spear was apparently polluting the minds of Boise-Cascade children with its television programs.

Now all that was suddenly changed. A renewed interest in the moon had spared the world the fate of an all-out immortalist-anationalist holocaust.

"Enough, already!" you shout, running up to the librarian. "I don't want to see anymore."

"You've got to look at the whole thing. We can't send you back into the world unless you know how to take care of yourself out there."

"I don't *want* to go back. I want you to freeze me for another hundred years. Five hundred years, I don't care."

"That's terribly expensive. Your policy only covers you until it's scientifically possible to reanimate you. Your benefits have already run out."

"They turned the earth into a funhouse, and now they're

going to work on the moon. Let Disney have it. Who needs it?"

"You're exaggerating. Why don't you at least bring yourself all the way up-to-date, and then decide?"

"What's to decide? The more I see, the less I like."

"You're getting hysterical over nothing."

"Nothing you call it? Every day is the Fourth of July, and you call it nothing?"

"You'll have to finish the film and get yourself ready to return. Those are the rules."

"I should have blown myself to bits seventy-four years ago. That's the only way out."

18

The Ugly Earthling

By this time the earth was beginning to look like a gargantuan pincushion.

First it was high-rise cemeteries, beginning in the early 1970s, followed shortly thereafter by high-rise cryotoria sprouting like mushrooms in every corner of the globe. Even the most backward aboriginal societies could boast a forty-five-story cryotorium, courtesy of the Ford Foundation, towering in the midst of bamboo huts and dilapidated chicken coops. In several of these remote areas, the structures were worshiped by local residents who believed they were inhabited by the Father of the Universe.

Then the human race had taken to the oceans, and rocket-launching sites were erected helter-skelter in a mad rush to put people on the moon as quickly and cheaply as possible.

It was the Gold Rush, the land boom, and the Indianapolis 500 all at once. Most anational developers had gone public to raise additional capital, setting off an unprecedented wave of speculative investment. Buy short, sell long, get rich overnight.

Soybeans were out, the moon was in.

The first Oceanic moonship was ready for launching on April 16, 2012. Goofy's Rainbow Express departed on schedule at 3:30 on a balmy spring afternoon with a capacity load of 209 paying guests and a crew of six. Boise's Bullet to the Moon followed shortly thereafter, and within the next two and a half or three months, a dozen more were on their way.

The reception these moonstruck earthmen received when they reached their destination was not nearly so warm as they expected.

They had gone on a mission of goodwill as well as a sight-seeing adventure. The first candy-striped moonship, with a portrait of the beloved dog emblazoned on the nose cone, settled down on the broad plateau where the scientists had landed twenty-three years before. When the landing party stepped out, magnificent in their pastel suits—peach, aquamarine, sky-blue, and moon-yellow—they were immediately seized by several members of the local community. Many of those still in the ship, under the impression that the tour guides were being embraced in friendship, continued to snap away with their zoom-lens cameras. When they later discovered they were being taken into custody, the new arrivals grew indignant.

"Here we've come with gifts, and you're treating us like aliens."

"You *are* aliens."

"We're all human beings."

"We are lunarians, and you are intruders."

"You lunarians don't know the meaning of the word *gratitude.* We've been sending you parcels for years, and this is the reception we get."

"Enough. Clap them in irons!"

"Now wait a second. Can't we talk it over? This is the age of negotiation."

"We've gotten along without you for twenty-five years, and we'll do even better in the next twenty-five."

"I wouldn't negotiate with this rabble," a visiting senator whispered to his aide. "If they can't conduct themselves in a

civilized fashion, they ought to be blasted off the face of the moon."

"True, Senator. The moon has been earth's satellite since long before these troublemakers decided to claim it for themselves."

"The moon belongs to everyone."

"I heard that," a militant lunarian interjected. "Let's slap them around a bit and send them packing where they came from."

Fortunately the cooler heads in both camps prevailed. The lunarians and the touring earthpeople did have much to offer one another. The moon dwellers were in desperate need of provisions they could get only from earth, and the earthmen were overwhelmed by the youth and vigor of these men and women, who must have been around sixty by this time.

A trade agreement was worked out to benefit both sides. The moonpeople would receive machinery and other kinds of technological assistance to further develop their own community, and earthpeople would be permitted to develop other sections of the moon for whatever reasons they saw fit.

And so the human race entered another phase in its never-ending quest for utopia.

The decade between 2015 and 2025 was a period of intense lunar exploration and development.

The moon was still a veritable no-man's land of unclaimed real estate, open for homesteading to the earliest arrivals. Even though the human race had had the technology to pioneer the moon for several decades, only with this rekindled interest was lunar real estate seen as something of value.

"Maybe we should buy a plot now, Ralph. Property values are going sky-high up there."

"I don't know. They're charging an arm and a leg for

nothing but a piece of rock. We could've got it for nothing a year ago."

"What you could've done and what you did are two different things. All I've ever heard from you is what you *could've* done."

"The whole thing is crazy. It's like buying land in Death Valley."

"That's what you said about Albuquerque when we were first married. Do you know what we could've had today if . . ."

"I know, I know. But it's only a *rock.*"

"Rock, sand, what's the difference? We've got to get in now on the *ground floor.*"

People were taking out second mortgages on expensive condominiums overlooking the ocean just to get a shot at five acres of airless rock. They risked everything—home, family, friends, bank accounts, the natural beauties of a fertile planet—to take part in this spontaneous new land boom.

Miami Beach North was the inaccurate though colorful name given to the first anational resort village to go up on the moon. It was located in Mare Sanctum, almost dead center on the near side of the moon with a magnificent view of the mother planet constantly overhead.

Coney Island II, Motel on the Moon, Heaven in the Sky, Stellar Village I, Earthview Lodge, and many more were slapped together in rapid succession. By 2020 a strip of resort towns had taken root across the face of the moon, their bright lights delineating an unbroken and nearly straight man-made equator.

Those who could afford to vacation on the moon in the earliest years were the envy of all their neighbors.

"Nancy and Vito just got back from Earthview Lodge."

"I'm tired of hearing about Nancy and Vito. Everything is Nancy and Vito."

"Nancy's raving about it. She says it's absolutely *gorgeous.*"

"Vito has nothing better to do than go on vacation six months a year."

"That's not true. Nancy says he practically kills himself working. He needs to get away once in a while."

"Working, you call it. He sells sex dolls for a living."

"Never mind."

"Before that it was French ticklers to high school students."

"He's a very successful businessman."

"Why can't we go on vacation on the *far* side of the moon? It costs a fortune to stay on the near side."

"You can't see earth from the far side."

"Who cares? I thought you wanted to get away from it all for a while."

"It's nice to keep an eye on what's happening back home."

The side facing away from earth was used primarily for scientific research and some low-profit enterprises. In some circles the backside of the moon was referred to as a "dumping ground" for frozen human beings, but the amount of space taken up by cryotoria was actually only a small fraction of the land area. It was a natural location for all branches of science.

In addition to cryotoria, sperm banks, hibernation centers, low-gravity rest homes, biofeedback institutes, health spas, cloning and genetic control laboratories, highly complex observatories, and astrophysics research centers were also erected. With the privacy and spatial remoteness from the frenzied commercialism of their fellow humans, scientists of every field found a haven where they could go about their business in peace.

The far side of the moon became a writers' and artists' colony as well. The quiet and isolation appealed to them, of

course. But there were other factors at work. While attitudes on life-styles had loosened considerably in the preceding generation or two, and restrictions on such things as pornography, divorce, nudity, abortion, promiscuity, polygamy, and so on, had gone the way of the Model T Ford, other taboos remained.

Incest, for one thing, was still frowned upon in some communities, despite the fact that genetic problems had been eliminated. Erotic play for new humans was almost universally discouraged on earth. Disloyalty to one's developer, whether it was Disney, Lefrak, or one of the others, was regarded as "unpatriotic" by many anationalists.

People carried many of the guilt hangups of the past, founded in nationalism, religion, and a puritanical view of the world, into the immortalist-anationalist age. Probably it would take another century to get rid of them all. Those desiring complete freedom of life-style were forced to create counterculture environments, and the far side of the moon was the ideal place to do it.

Others built second homes on the moon, providing themselves the luxurious contrast between life on Oceana and the eerie novelty of a lunar retreat. They were also able to travel further than they ever had before and still "keep an eye" on the old homestead above them.

In 2025 the first permanent lunar village since the expedition of '89 was completed and to the delight of the developer, who had built it purely on speculation, the response was fantastic. Until then no one knew for sure exactly how many earthmen would be willing to leave their native planet permanently and take up residence on the moon. As it turned out, they couldn't line up fast enough to fill out applications. Bribes to have one's name bumped up to the top of the list reached outrageous heights.

"We were next! How did that son-of-a-bitch get ahead of me?"

"In this world it's who you know that counts."

"That's not fair. We've been on line since six o'clock this morning. He just got here an hour ago."

"You're wasting your breath. If you want to do yourself a favor, go up to that redheaded fellow there and tell him you're a friend of Murray's."

"Thanks a lot. Anytime I can do you a favor, just holler."

"I'm hollering. What's your wife doing tonight about eight?"

By 2030 four fully equipped permanent communities had been built on the moon, and the waiting list to get in was longer than an army chow line. There was at least a five-year waiting period unless you happened to know the right people or had the wherewithal to grease a few palms.

People began to complain that the place was turning into a circus—yet they insisted on bringing the circus with them, no matter where they moved.

Pretty soon it would be overcrowded. Eventually you would have to move to Pluto to find some peace and tranquillity. Or beyond Pluto.

Or maybe back to earth again. The human race was leaving it in droves.

19

The New Scientific Revolution

The land boom didn't end with the moon—not by a long shot.

Lunar developers sent advance parties to Mars and its satellites to scout the terrain for possible building sites. These spheres turned out to be much more hospitable than was originally thought, and blueprints were drawn up for permanent cities and scientific research centers.

The period beginning about 2015 and continuing right through into the middle of the century has been labeled the New Scientific Revolution for the sake of historical perspective. But even that rather grandiose phrase doesn't begin to describe accurately what transpired. It was as far removed from the Industrial Revolution as differential calculus is from simple arithmetic.

During this period the human race discovered an effective means of harnessing solar energy, something that had been talked about for generations but turned out to be more complicated than it originally appeared. Even by the turn of the century no one had yet found a design for a solar screen capable of powering a home that wasn't broader than the home itself. Perhaps there were just too many other things going on for anyone to devote that much time to solving the dilemma. But in 2032, through the use of a

remarkably simple reflector system, it was possible to concentrate large quantities of solar energy onto a surface the size of a pancake. By the end of the '30s, 80 percent of the energy used on earth and on the moon was provided gratis, courtesy of the sun.

Solar energy reduced the cost of space travel to a level even the lowest-paid wage earner could afford.

The first successful experiments with fusion power were also conducted in the middle 2030s. Scientists had long predicted that fusion energy would someday unleash a force capable of shaking the very structure of the solar system. And so it could, though it was tremendously expensive in the earlier years. Through the fusion of separate atoms man created enough power to send a spaceship clear across the universe. More important than this, the horrifying specter of *transmutation* now loomed on the near horizon.

Not since cloning had any scientific breakthrough boggled the imagination and stirred the fears of the average citizen to this extent. Fusion made it theoretically possible to transmute any substance, including a human being, into an entirely different form.

"Did you hear what happened to poor Klando?"

"What?"

"He refused to let Mario transplant his brain into his body . . ."

"So?"

". . . so Mario fused him into a tree."

"But that's outright murder!"

"No it's not, honey. If he fused him into a *chair,* it would have been murder. But a tree is a living creature."

Theoretically at least, it was also possible to restructure two human beings so they could pass right through each other without touching—although the danger of a monu-

mental explosion prevented anyone from even attempting such a thing even with inanimate objects.

Ironically enough, no one attempted to do anything with fusion except develop it as a source of power until the year 2040. Then, inanimate objects were created and reproduced as they were needed for the first time, and transmutation of livestock and fish complemented cloning as a source of food supply.

There was more than enough of everything to go around. Prices on all items from food to the grandest luxuries were minimal; the major costs were distribution, retailing, and service of the machines that had taken over many of these functions twenty-five years before. Hardly anyone had to work more than a three-day, twelve-hour workweek to provide himself a comfortable existence, although many did work two or three jobs out of boredom or force of habit.

Why didn't anyone try to transmute human beings and create a race of supermen—or supermonsters?

Probably for the same reason the Clonal Hitler Scare turned out to be just another doomsday myth. Way back in the last years of the twentieth century, virtually everyone realized that assembly-line Hitlers would turn out to be as different from one another as day and night because of environmental factors. And carbon-copy Mozarts could just as easily develop into psychopathic rapists.

There simply was no way, cloning and transmutation notwithstanding, to manufacture emotional and psychological copies of anyone.

Then, too, there was no profit to be derived from cloning or transmuting human beings. You were better off investing your lucre in a clump of rock on the backside of the moon than speculating on Frankenstein fantasies.

No demand, no market, no profit, no investment. That's all there was to it.

By 2045 the public's fear subsided, and fusion and

transmutation were widely accepted as a great boon to mankind rather than a horrifying menace to be resisted at all costs.

"I knew I hadn't heard the end of this cloning business," you mutter aloud at your machine.

"I beg your pardon."

"Cloning. It always pops up. You think you've heard the last of it, but every generation or so there it is again."

"There's absolutely nothing to be afraid of. It's being implemented strictly for food production."

"*Now* it is. But what about next time around? Everything that keeps coming back like this, I'm afraid of."

"No one has ever used it in a harmful way."

"But it's always *there*. It's like having a rattlesnake strapped to your back. Maybe he didn't do anything yet, but he's still *there.*"

During this period the laser also came into its own.

Except for the brief scare in 2011, the human race had not experienced anything like a major war since the Vietnamese debacle of the 1960s. China and Russia had threatened to go for each other's throats in 1979 but, thanks to the intercession of outside forces, they were able to settle their differences across a conference table. Other skirmishes, similar to the Arab-Israel, India-Pakistan conflicts of this period, continued to erupt as late as the early 1980s. But, for all intents and purposes, the Vietnamese War of the 1960s and early 1970s was the last major war in human history.

The laser beam, capable of burning cleanly out of existence anything it was aimed at, had rendered nuclear weapons obsolete by 1985. Most major nations were using laser energy for defense in the 1990s, and the ocean communities that followed were all equipped with laser stations to protect anationalists from outside aggression.

The laser was really the ultimate weapon in every possible respect. There was absolutely no defense against it, not even another laser. Once aimed at a target, the laser would incinerate anything in its path with the terrifying speed of light. It was more "humane" than nuclear power in that the energy could be pinpointed. No civilian casualties need ever result from a laser war. But the swiftness and supreme finality of the laser made it seem even more horrifying than "The Bomb" in the final analysis.

The medical benefits to be derived from the laser beam had been foreseen right from the beginning. Before 1975 surgeons had been considering the laser for use in brain surgery and other intricate operations. In retrospect, the idea of slicing into the human brain with something as clumsy as a sliver of metal seems as barbaric as preanesthetic surgery.

But, despite the widespread availability of the laser through the 1990s, it wasn't until the turn of the century that the laser was used in a creative manner.

In 2001, in Ocean Village Six, the first laser brain surgery in history was performed. The success of this operation opened the door to a new era of experimentation in the field. Cancer and other serious diseases had long ago become as rare as the plague, but whenever they occurred, they were treated routinely by laser. Artificial parts for the human body were also corrected with laser beams when they began to malfunction.

Indeed, the whole field of medical science had become as much a matter of plumbing and mechanical repair work as of biochemistry.

With the decline of the automobile as a means of transportation, automobile mechanics were forced to direct their talents into new fields. It was only natural that many of them turned to surgery—and at no sacrifice to their standard of living. They were able to turn a pretty buck repairing mechanical body parts, and many owned condo-

miniums in Oceana and second homes on the moon or one of the satellites of Mars. Medically trained surgeons found themselves competing more and more with former mechanics, plumbers, and electricians, whose skills complemented their own in the service of the human body.

Or what remained of the human body.

"Me, a surgeon?" You bolt away from the microfilm viewer and race toward the librarian.

"You again?"

"Is it true? It says there that automobile mechanics can become surgeons now."

"Why, yes. Mechanical skills are very useful today in body technology. Are you interested?"

"My mother always wanted me to be a doctor."

"I thought you wanted us to freeze you again."

"Condominiums on the ocean. A country home on the moon."

"You'll find that you fit in very nicely out there."

"And I thought I was obsolete. You know—no more cars and trucks."

"Members of your profession are among the highest-paid people in the solar system."

"This changes everything."

"You mean you no longer want to go back in suspension?"

"I think I shall consent to have a go at it before coming to a final decision."

No one had yet found a way of transplanting an efficient mechanical brain (the protoplasmic variety was still the best little computer in existence), but just about everything else was manufactured in artificial form. Mechanical hearts, livers, spleens, kidneys, synthetic teeth, prosthetic arms and legs, were all available in department stores and body shops everywhere. You could either go to Korvette's, Macy's, or

Sears and have the parts installed on the premises, or buy them separately and have the work done by your personal physician.

Artificial parts, because of their greater durability, were vastly preferred to the flesh-and-blood variety. Also, by 2030 or 2035, they were so lifelike in appearance, you could hardly distinguish them from the real McCoy. The awkwardness of the first models had been eliminated years ago. Streamlining and modern design had worked wonders, and it was virtually impossible to tell how much of anyone was real and how much was artificial unless you knew what to look for.

The 2030s marked the beginning of the Golden Age in laser technology and human engineering. The New Scientific Revolution had accelerated progress to such an extent that only a madman would have even attempted to predict what might take place within the next twenty years.

20

A Madman's Prediction

Rodan McNally was a madman fit for the task. In 2030 he had made the prediction that immortality was here to stay, and that supernaturalist claims concerning ESP (extra-sensory perception) were a "lot of shit." "The future will bear me out on this," he stated.

And so it did.

The most startling discovery about ESP was that there was nothing "psychic" about it at all. Actually, telepathic or NVC (nonvocal communication, a much more accurate designation) was a direct outgrowth of biofeedback techniques. The ability to prolong life by controlling one's bodily functions with brainwaves was considered a remarkable advance when it was achieved. But for some mystifying reason, people were so overwhelmed by this revolutionary breakthrough that no one recognized it for what it was—a baby step in the field of psychokinesis (mind over matter)—until many years later.

It wasn't until 2030 that McNally asked the question: "If brainwaves can be directed inward to influence biological functions, why not outward as well to influence physical objects?"

"That's a good question, Rodan. I've never thought of it that way before."

"It's so simple, it's astounding."

"Genius lies in being able to perceive the simple."

"It's perfectly logical. After all, what works on the inside must also work on the outside."

"I think you've summed it up in a nutshell."

"Come. I'm going to proclaim my discovery to the world so all of humanity can benefit from it—after I stop at the copyright office first, of course."

Theoretically, it made good sense. Mind-over-matter exhibitions had been popular as a parlor sport throughout a good part of the twentieth century. All sorts of clever performers had appeared at fairs and on television, staggering the public with their apparent ability to read other people's minds at will. They would allow themselves to be blindfolded while an assistant rummaged through the audience for objects of every description: watches, love letters, good-luck charms, tubes of lipstick. The assistant would raise each item on high, and the mystic, clairvoyant, or whatever he called himself would recite a little story about each in turn. Ninety percent of the people involved would swear in the most reverential tones that there was no possible way the Great Mandini could have known such secrets—other than through his own magical powers, of course.

People watched these performances faithfully by the millions, but somehow you could never find anyone who admitted that he thought it was all on the up and up.

"Did you see the Great Mandini on the tube the other night?"

"No. What did he do?"

"He read the minds of thirty-seven couples in the audience, then he revealed their secrets to the TV audience."

"And what happened?"

"They were all divorced this morning. It made the headlines."

"He's clever as hell, I grant you that. But I really don't think he's legit."

"Oh, of course not. He's a good performer, but the whole thing is a crock of shit."

However, the feeling continued to persist that maybe there was something to it after all.

Wouldn't it be great actually to read somebody else's mind? But it's just a trick. Yeah, yeah. I know it's not possible. But wouldn't it be great if it were?

Duke, Purdue, Rutgers, Cornell, and other universities continued the experimentation on a more sophisticated level, never really telling the public exactly what they were up to.

Quietly they paid cynically amused students five and six dollars an hour just to sit at a table and try to guess what cards were being turned up by some half-mad psychologist on the other side of a screen. It was a great way to pick up extra legal tender—that and selling your blood, especially if you had one of the rare types—while you were bumming your way through college. Whenever someone guessed a fraction of a percent higher than chance, an article would appear on page ninety-six of *The New York Times* heralding a great new advance in ESP research.

Then the story would be dropped as quickly as it was picked up, and no one would hear anything more about the subject for another ten years.

This situation continued through the anationalist movement of the 1990s, the immortality breakthroughs of the same period, the development of the laser, the colonization of the moon, right on through to the early years of the fusion era.

Then, suddenly, McNally's famous theory of 2030 was vindicated by the irrepressible logic of history.

Bell Telephone, which provided a good percentage of the video phone service in Oceana and what remained of the nation-states, increased its rates for the third time in two years. A storm of protest rocked the entire globe. Everywhere people were asking the old familiar question of fifty years before. Wouldn't it be great to communicate without using a telephone? Yes, but McNally said ESP is nothing but a horrendous hoax. I don't think he really meant that. I think he actually said it wasn't what they say it is. Suppose ESP is something else instead? You mean . . . you mean . . .

And so, researchers turned back to their telepathy experiments with a new impetus. Utilizing the knowledge they had already accumulated in the field of biofeedback, they were able to demonstrate that the transfer of thought from one mind to another was indeed possible, and that there was nothing at all magical about the process. It was, in reality, a question of transmitting brainwaves or electromagnetic impulses from one mind to another. It had nothing to do with psychic phenomena or preternaturalism or any other such nonsense.

ESP was really NVC pure and simple.

Nonvocal communication by the projection of brainwaves from one individual to another. Once you taught people the basics, it was all very simple. Like learning to ride a bicycle or learning to swim. Once you've done it, you never forget. It becomes an integral part of your nature. When people discovered they were actually walking around with a radio transmitter locked inside their skulls, they almost went berserk. The human race had unearthed another new toy, and a free toy at that. Everybody could play. All you needed was a brain. Any size would do, so long as it was capable of generating some meager impulse above the alpha wave, which indicated a state of total numbness.

Bleep. Bleep.

People would walk the streets directing the most disgusting suggestions into the minds of total strangers.

"....."

"You filthy pig! If you don't go away I'm going to call my husband."

"....."

"I'm warning you now!"

"....."

"Really?"

"....."

"You know, maybe you're not so bad after all."

However, you could always tune off someone else's thoughts if you didn't like what he or she was thinking. You couldn't invade another's privacy against his will. That was the great thing about NVC: it took two or more to play; it depended on cooperation.

As might have been expected, Mother Bell grew absolutely frantic over this startling new discovery.

Bell Telephone, afraid it would be driven into bankruptcy overnight, spent millions on advertising to convince people that the old method of communication was infinitely more efficient than NVC. For one thing, NVC depended on a certain proximity. You had to be relatively near someone to communicate without an artificial aid. It was all right for hurling suggestions to someone at a social gathering, but even then you had to be careful no one else was tuning in. It wouldn't do to proposition someone's wife if her husband were also within brainshot.

Also, long-distance communication would always require the use of lines, cables, and radio signals to connect sender and receiver. It would be impossible, for example, to communicate from the moon with one's mother-in-law on earth via NVC.

"Who did that last ad for us?"

"You mean the one reminding people they had to use Bell to communicate with their in-laws in Miami Beach North?"

"That's the one."

"Clinton Mahoney Associates."

"Well, fire them. They're driving us into bankruptcy."

As it turned out, Bell Telephone's fears proved groundless. It was possible to communicate long-distance by NVC, but strictly with the aid of powerful transmitting facilities, which only the existing phone companies had available. NVC operators were hired to send telepathic messages anywhere in the solar system, the same way vocal messages had traditionally been sent. NVC was actually a windfall for Bell and some of its larger competitors, opening up a previously nonexistent industry, which they were promptly able to exploit at a profit.

Before the decade of the '30s was out, Bell Telephone had become one of the staunchest advocates of nonvocal communication.

When the novelty of NVC wore off, people began to use it strictly as an adjunct to their vocal cords. They didn't even think about it any longer. It became second nature for close friends and others enjoying a harmonious relationship to supplement their dialogue with thought transfer. People hardly even bothered to differentiate between the two when they were together; afterward, if you were to ask them how much of their conversation was vocal and how much was nonvocal, they would be hard pressed to give you an accurate answer. Ideas had been exchanged, and people just didn't concern themselves that much with the means they had used.

By the 2040s, NVC was already being pooh-poohed as nothing original. Cynics began to claim that people had been communicating nonvocally for decades through the use of shrugs, grunts, and other assorted gestures. Within the

space of ten years, the human race had already grown bored with its phenomenal new toy. So people could communicate without moving their lips.

Fascinating.

When they learn to read without moving their lips, that would really be something.

21

Fun in Sink City

In the late 2040s, the human race was once again looking for new frontiers to conquer. The prospect of immortality had become about as exciting as yesterday's newspaper headlines. Ditto the expansion into the solar system. Mars. Pluto. Uranus. The mention of these names was enough to trigger a yawning orgy at cocktail parties all over earth. The planets whipping so monotonously around the sun were like everyone's backyard. A single trip to Deimos or to the moon, and you'd seen it all.

One satellite was the same as the next.

The first manned interstellar spaceliners were being readied for liftoff. Unmanned probes had revealed several years before that a few neighboring stars might harbor as many as half-a-dozen planets in orbit. Finally, on October 7, 2048—the year the last national government collapsed on earth—a team of human explorers took off to have a firsthand look at the situation. It would take earth-years before they could radio back their report. Immortalists had quite a lot to look forward to in the remote future, but what could they possibly do to amuse themselves in the meantime?

Then, in 2049 or 2050, someone made another original suggestion.

"Remember when McNally said: 'What works on the inside must also work on the outside'?"

"How could anyone forget it, Futura?"

"Well, if that's true, then it follows logically that . . ."

"Yes? What is it?"

". . . it stands to reason that, what's good above must also be good underneath."

"My God, Futura! I think you've hit on something big."

"You may be right, Clonix."

"But if you don't mind telling me, just what the hell do you mean by that anyway?"

The kernel of wisdom contained in this seemingly sophomoric slogan was instantly apparent to everyone. As we review the past we cannot help but be struck by one recurrent theme threading its way through all human history. That is, the solutions to the monumental crises of each period usually turn out to be incredibly simple in the final analysis. We look wide and far for answers to complicated questions, appointing committees of "experts" to study the situation for eons at a time, and the answer is almost always found lying out in the open right beneath our collective nose.

So it was with the major issues of the mid-twenty-first century.

"What's good above must also be good underneath"—underneath the oceans, that is. Underwater exploration, as old as the first submarine, had scarcely progressed in any real sense for three-quarters of a century. While the human race had been extending its life-span, pushing out from the land into the oceans, reaching above for the moon, the planets, and the stars beyond, it had virtually ignored the vast untapped reservoir of life that lay literally beneath its feet. Small teams of marine biologists had continued in the steps of Jacques Cousteau and his twentieth-century explo-

rations, but, with the attention and resources of their fellow men directed elsewhere for such a long period, they had not been able to get the backing required to do sophisticated research in the field.

Now, at the end of the first half of the twenty-first century, the human race had decided to take notice of them.

Capital, equipment, manpower—whatever they needed—was put at their disposal. You, explorers of the great briny depths, are now on stage. It is your turn to perform. Dance, sing, laugh, show us what you can do, what magic you can work.

And perform well they did, taking up residence on the ocean floor for months at a time, establishing an underwater network of cryotoria, hibernation centers, and assorted research laboratories spanning the globe. Fortunately for their own mental equilibrium, they were spared the fate of the lunar explorers of sixty years before. There were no new activities taking place on the earth's surface to divert public attention from what they were doing. In fact, they seemed to be enjoying themselves so much in their natural anti-gravity environment that the rest of humanity grew impatient to join them.

Selfish, fishlike humans. Why should they keep all that pleasure to themselves?

With a demand for underwater living beginning to percolate on the surface, real estate developers everywhere rubbed their palms together, anticipating a lucrative new field of investment.

"We'll put Sink City One in the middle of the Indian Ocean."

"Right, Max. And if we hit the jackpot with One, Two and Three will go down off the Hawaiian Islands."

"The prospects are unlimited. There's the Black Sea, the Atlantic . . ."

"When we finish with the oceans, we'll go to Lake Erie."

"Jesus Christ, Ben. I can't stand it. We'll have everybody moving underwater."

"Dome-enclosed cities with man-made slopes so people can ski *underwater.*"

"Yeah. This way they can watch the fish swim *overhead* as they come off a ski jump."

"They'll be willing to pay *extra* for features like that."

"They'll be able to swim in artificial lakes and watch sharks and manta rays rub their bellies on the 'sky.' "

"This is the best idea we had since lunar living."

"This is *better* than lunar living. You know how boring a Swiss chalet on the moon can get after a while?"

"True. Sooner or later *any* view will start to drive you crazy."

"But what a view down there, huh? Every minute a thousand new fish swim past your picture window."

"It's better than television, even."

So, by the middle of the twenty-first century, the *sub*continental movement added a whole new dimension to the concept of anationalism.

By 2054 the human race was well on its way toward taming the last remaining terrestrial frontier. Disease, death, the continents, the oceans, now the floor of the seas, had all come under human domination. The solar system was in the process of being colonized, and man was currently embarking on a long journey to explore and eventually settle neighboring systems in his galaxy.

With this march into space, the human race had also set forth on an irrevocable course of splitting itself into various subdivisions, which would all fall under the general species of *homo sapiens.* After not too many generations, it was entirely conceivable that the different strains would hardly recognize one another as branches of the same tree (not that they ever did when they all lived on earth).

Meanwhile, back on planet earth, there was more room on land than there had been since the earliest days of human history. The migrations to the seas and into space had bled the land of population. Many people found they could now move back to the homelands of their ancestors and actually enjoy a comfortable, civilized, uncluttered existence.

There was no one there to torment them with endless rules and regulations every time they wanted to chew gum in public.

In effect, the human race had succeeded in spreading itself out fairly evenly on earth and in the nearby regions, and it had been accomplished without a universal master plan. All it took was for a courageous pioneer to stake a claim in some godforsaken area, set the rents at an exotic level, then sit back and watch the multitudes swarm in for a piece of the action.

The grass is always greener on the other side of the fence—even when there's no grass there to begin with.

A population crisis of sorts erupted in the mid-2050s, although a different one entirely from that of an earlier period. The race, it seemed, was no longer propagating itself rapidly enough to flesh out this expanding civilization. Even with a negligible natural deathrate (there were still some permanent fatalities due to serious accidents), more and more people were needed to build the growing new societies.

You simply could not get anyone to work more than fifteen hours a week without paying a small fortune in overtime.

So the cry went out for more new humans, more people to spread the heritage of earth further out into the universe. In a sense the world had come full circle since 1980. At that time the prime concerns of mankind were how to limit growth and keep the human race from turning the planet into a gargantuan beehive. By the mid-2050s the issue was

quite the opposite—how, in an age of physical immortality, to motivate people to keep on propagating their own species.

They had apparently lost interest in passing name and fortune along to their offspring when they could keep it all themselves for as long as they cared to.

"I've made up my mind," you say, finishing the microfilm history. "I've decided to return to the world."

"I knew you would. Everyone does."

"Work fifteen hours a week and live like a king. I can't believe it."

"That's what gets all of you after everything is said and done."

"It's not just that. I feel I can provide a valuable *service* to mankind."

"Of course you can."

"A surgeon who works fifteen hours a week and lives like an emperor. Jesus Christ!"

"You'll begin your formal orientation period tomorrow morning."

"I have a *moral* obligation to return to the world."

"Sure you do."

"My people need me."

Book Three:
Beyond Time

22

The Education of a Veteran Reanimato

You went under in an age of warlike nation-states, environmental pollution, traffic jams, bully-boy politicians, moral puritanism, and a cultural climate fit for lobotomized ten-year-olds, and you have awakened in a world—if you can believe the record—of immortality, peace, freedom, cleanliness, moving beltways for human transportation, and a network of new cities stretching over and under the oceans and a fairly good distance into space. If complete freedom did bring with it a certain garish commercialism, it has also provided you the opportunity for a new career in your second time around.

Death and taxes weren't inevitable after all.

Your newfound optimism is tempered with a touch of anger. The awareness that you'd been fed a lot of nonsense by parents, teachers, priests, and other authority figures all your life—most of which you swallowed without thinking twice about it—is enough to start you gnashing your teeth. Most of the fury, however, is directed at yourself. It was your own fault really—you know that now—for not taking the time to reason things out. Like everyone else you knew, you accepted the prevailing platitudes on faith—no, not even on faith. You accepted them because they *were,* without making a conscious decision at any point to resist or accede to the force of established opinion.

"From now on I'm not listening to anybody else."

"You've got to listen to others. How else do you expect to get through your orientation program?"

"Well maybe I'll listen, but I won't believe it."

"You're a very difficult man to get along with."

"Everybody you meet is trying to sell you the Brooklyn Bridge. I'm getting tired of buying it."

"I haven't the foggiest notion of what you're talking about."

"There are two kinds of people in this world: those who sell bridges and those who buy them. From now on, I'm going to sell them."

The feeling of victimization soon gives way to anticipation. You are one of the lucky ones from an earlier age who have been given the opportunity to return and live your life over again—no, to live a *new* life, hopefully for as long as you like. What about the others who lived their lives under a cloud of lies, and will never have a second chance to come back now that the old clouds are gone?

Your first impulse is to rush out and see everything at once, to prove to yourself it's really true and you've been digesting history instead of just another science fiction tale. It is almost as though someone has been reading your mind, for no sooner do you get the urge when an apparition in flowing lavender robes appears beside you.

"Have you enjoyed your first day back?" she purrs, smiling.

"Enjoyed? What's to enjoy? A lousy film in the library with a drill-sergeant librarian who belongs in a museum."

"Well, I hope you'll find your orientation program more exciting. My name is Fantena and I'm going to be your guide for the next few days. We expect to have you ready to face the world on your own by the beginning of next week."

Fantena! So the science fiction writers weren't romanticizing after all. And how the name fits. She is lithe and

willowy, her snow-white teeth glittering, her eyes shining like blue fire. You are happy to see that contemporary custom calls for long hair, for Fantena has it in abundance, cascading in lush waves all the way to her lower back.

"So you're going to show me the ropes," you say, smiling.

"Yes. And answer your questions, if you have any."

"Now that you mention it, I've got question in spades. My wife must be as old as Methuselah by now. Whatever happened to her?"

"Your wife remarried in 1982, two years after you went under, then went under herself in 1996. She was reanimated in 2035 and settled with a family on a Pacific Ocean community. Our records show she's still there."

"Nineteen eighty-two, huh. Sweet old Sally. She could hardly wait until I was completely stiff, could she?"

"You must understand that she lived sixteen years after you, and she's now been going another twenty years since reanimation—thirty-six years in all, with two different families since you went under. You'll have to resign yourself to the fact that you're probably the furthest thing from her mind right now."

"From the looks of things, I was the furthest thing from her mind seventy years ago."

"We don't like to tell people what to do, but Sally is emotionally involved in a new situation. You're free to do as you like, of course, but it could be disruptive if you tried to look her up again."

"Don't you worry your pretty head about that, Fantena, sweetheart. Sally is as good as gone as far as I'm concerned. Besides—I'm not sure how she'd fit in among surgeons and professional people anyway."

"I understand. You also had two children when you went under."

"They were probably overcome with grief for all of ten minutes, too."

"Your son went under only two years ago, and we have

every reason to expect he'll be back among us by the end of this century . . ."

"Poor Ned."

". . . and your daughter is a youthful and vigorous ninety today, living not very far from here."

"She's old enough to be my mother now!"

"I'm afraid she doesn't look much like the teen-ager you remember. There's no reason, though, why you can't pay her a visit when you leave here."

"Forget it. I wouldn't know how to *relate.*"

"That about brings you up to date on your immediate family. Are there any other questions I can answer for you right now?"

"Yeah. How about a nice belt of sour-mash whiskey on the rocks? Are they still making Jack Daniels these days?"

"Yes, they are. I'll get your drink right away, sir."

"You can drop the 'sir,' honey. Most people will be calling me 'Doctor' pretty soon, but you can call me Hal."

That makes two cravings you've managed to satisfy of the three you woke up with in the morning. One remaining. Fantena? She's smiling. Does that mean she understands? Would she? Could she? Will she?

By the next morning you already feel like Mentor who held court at breakfast your first day back.

After all, you are a veteran *reanimato* now, with twenty-four hours of new life behind you. There is much you can teach these novices who have just been reincarnated an hour or two before. You want to give them a thumbnail sketch of what's transpired during the past few decades—nothing heavy, mind you, just a few historical brushstrokes without overtaxing their delicate sensibilities. *You've* spent a full day in the library already, and *you* can direct them to the most comprehensible literature and steer them away from the more ponderous stuff.

But no, they're not having any of it. Why do they insist

on speaking all at once? Why do they attempt to answer one another's questions? Idiots! Talk about the blind leading the blind. Why don't they shut up and listen to someone who knows something for a change?

After breakfast you begin your formal orientation period. You've managed to bring yourself up-to-date on the general human condition, and you sit, slightly bored, through the history lectures that take up most of the first day's activities. You are surprised to learn that formal orientation actually began the night before—while you were asleep—with a silent assault of NVC impulses. The daytime lectures are designed to reinforce the sleep-learning process.

"I'm not sure I go for this NVC business, Fantena," you protest.

"Don't worry about it, Hal. You'll get used to it after a while."

"When I'm awake is one thing, but not when I'm sleeping. It gives me the creeps."

"But that's silly. A hundred years ago people played language records while they slept to make learning easier. This is more effective, that's all."

"With the records you knew what you were playing. With this NVC of yours, they can say *anything* and you won't know the difference."

"Now I think you're being paranoid, Hal."

"Maybe so. I just don't like it, that's all I'm saying."

The following day you discover that you are as ignorant as a two-year-old when it comes to the nitty-gritty of survival. While you can name the major export of Sink City Six, you don't know the first thing about how to get by in this brave new world outside.

Money, for example. Did you really think your old U.S. Federal Reserve dollars would be negotiable in today's market? You'd be laughed off the streets if you tried to buy so much as a loaf of bread with one of those worthless

relics. Platinum and gold are the contemporary media of exchange—or, more accurately, 100 percent platinum- and gold-backed paper currency issued by any one of the anational communities. (Some are more readily accepted than others, of course.)

Hardly anyone, however, actually carries paper currency or metal coins around with him. Credit has been totally computerized, and the vast majority of people have several credit cards, provided by their savings-and-loan associations, which they use to purchase everything from a ride on a beltway to a high-priced condominium. You flash your card before a screen, which registers the amount and bills your association, which, in turn, deducts the money from your account.

"I knew this credit business would get out of hand someday."

"It's a wonderful system, Hal. No one ever has to worry about whether they've got enough money with them or not."

"In the old days a man could feel proud of himself when he had a wad of cash in his pocket. Today, you can't tell whether you're broke or not."

"The only ones who carry cash now are those whose credit has been cut off. Believe me, it's no mark of distinction to have money in your pocket today."

"The whole thing is ass-backward if you ask me."

You also learn that there is no longer a government post office to hold up letters for three days before they find their way across town. Most long-distance messages are sent by satellite relay and delivered anywhere on earth within two or three hours. Machines transcribe them at each end and send them out on wire services. You have your choice of any number of companies, some a part of the telephone system (at times it's not easy to differentiate among phone, mail, and telegram messages), and, as in any competitive industry, you generally pay more for quicker and better

service. Even the slowest, however, can get your message delivered in four or five hours.

Then there is the question of justice. You no longer have to worry about fighting City Hall to get things settled, because there are no City Halls to worry about. Professional panels of arbitration are called in, for a fee, to adjudicate all disputes from a landlord-tenant hassle to mass murder. This is much more agreeable and less expensive than the old state system since the arbitrators only get paid for the actual work they perform, and they invariably lose business to their competitors if they develop a reputation for partiality. In the beginning there were firms that sold "justice" to the highest bidders, but they were eventually weeded out by the inflexible logic of the marketplace.

The most difficult change for you to accept, oddly enough, is the one that is easiest of all to understand: language.

"I must say that I don't care at all for what's happened to the English language during the past seventy-four years."

"I'm amazed to hear you say that, Hal. Phoneticization of language makes communication easier for everyone."

"I admit that it makes sense to drop letters that aren't pronounced. But if it means general standards have declined, then I'm against it."

"I'm afraid I can't believe you're serious."

"There has to be some sort of rules, you know what I mean? You can't just let everybody spell words the way they want to. Besides . . ."

"What's the real reason, Hal?"

". . . if it keeps up like this, it's only a matter of time before we're all talking like automobile mechanics."

At the end of a week, you have learned enough to survive on the outside, at least as well as any eight-year-old might do on his own.

In a way, it's like preparing to travel to a foreign country was in the old days. The most important thing was to

master the money system so you didn't trade away your life savings for a stick of gum your first day there. Next, you wanted to learn something about local social customs. Tipping your hat to a lady in East Zambia might mean you were calling her a filthy slut, so you had to avoid that sort of misunderstanding.

Then you needed maps of the cities you would be visiting, with danger zones clearly defined. Wandering off a main thoroughfare in old Bombay could easily have led you down a dark alley full of murderous cutthroats. You also required a list of hotels, with their rates and the kind of amenities you could expect in each.

It was really no different preparing to go out again following reanimation. You'd soon be visiting an exotic new place for the first time, and many of the old travel tips still applied. You would need to protect your lucre against designing con artists; stay in the civilized zones until you found your bearings; and avoid insulting people by unwittingly crossing your legs at the wrong time.

This new technology did pose special, more complicated problems, no doubt of that. It wouldn't do to step onto a beltway that was ripping along at 130 per. You'd find yourself back in the deep freeze in no time flat with a mistake like that.

Use your head, keep your eyes open and your wits about you at all times, and you would get by quite all right. Two weeks back in the world again, and you'd be a veteran *reanimato,* true and proper.

So, as well tutored as anyone in the mysterious ways of the modern world, you pack your gear and set forth on an exciting new adventure.

It's great to be alive again!

23

Going Out

You had gone under on the eastern tip of Long Island near Orient Point, and that's where you find yourself when you erupt into the great outdoors.

Your first breath of fresh air in three-quarters of a century.

Smell it. Taste it rushing inside, feeding your blood, your organs, your vital systems. Life. Your senses are heightened a thousand times to your environment. Previously you had spent days, weeks, even months at a time, marking off your life as though pacing a treadmill, giving scant notice to the people and things that touched your existence from moment to moment. It was as though you had all the time in the world ahead of you; the present didn't exist, only the vague promise of a far and endless future.

You lived your life in the future, dreaming of all the things you were going to do tomorrow, the places you were going to see tomorrow. Then, abruptly, there was no tomorrow. The present was snuffed out in the blinking of an eye; the future ceased to exist, and so did you.

In retrospect, you seem to have wasted a good part of your life. You forgot to think about living while you were doing it, and that was the greatest waste imaginable.

It suddenly struck you, as you stood there on a strip of land facing the sea, that the only way to live was to somehow conquer time. Time must be destroyed—if, indeed, it existed at all in the first place. What was it but a set of physical conditions native to the place you happened to live in. On earth it meant a certain gravitational pull, a certain pressure per square inch of your body, certain periods of alternating lightness and darkness determined by the rotation of the planet and measured in units man had labeled seconds, minutes, and hours. The net effect of these particular physical circumstances was a life expectancy of *x* years for the human body.

Elsewhere time was different. On the moon, with its lower gravity and different cycles of light and dark, time changed accordingly. Human existence was no longer measured in earth-days and earth-years, but by a new system relative to a new set of circumstances.

In the past seventy years or so, the human race had learned to cheat time through the use of various techniques: pills, diet, sleep, biofeedback, transplants, freezing and reanimation, space travel, and the colonization of other planets. But as far as man had come along in his perennial fight with Father Time, he had done remarkably little thinking about the precise nature of his major enemy. He had learned to beat time—for the moment at least—but only now was he beginning to ask himself perhaps the most intriguing question of all.

Was it possible, under any circumstances, to eliminate time altogether?

To do away with time, to obliterate it completely from the human condition: this was the great challenge that confronted man during the second half of the twenty-first century. If time was relative, then it was theoretically possible to devise a means of neutralizing it. Man could then truthfully call himself immortal. Immortality would not be

a matter of tricks and skillful biochemical techniques, but an integral part of the human birthright.

Your first beltride can only be compared with your first ride on the roller coaster when you were still in grammar school.

Not that they are alike in any real sense. Only the exhilaration, the rapture of participating in an exciting new activity for the first time, is the same.

"This is like going bowling for the first time," you say to yourself. There is no one to talk to since everyone is locked in their own cubicles.

"It's like your first slug of Jack Daniels." Your voice echoes around your compartment.

"It's better than getting laid for the first time." You yell louder.

"Who am I bullshitting? The subways were better than this. At least you could find somebody to talk to."

A few minutes later you reflect again.

"That's not true, either. Try to talk to somebody on the subway, and you were lucky if you didn't get arrested."

Your life is completely open now—no commitments, no responsibilities, total flexibility in all your decisions—and seventy-four years of compounded interest has relieved you of financial worries in the foreseeable future.

You have the opportunity now to avoid the mistakes of the past, all the silly promises and decisions that involved you in dead-end situations with no hope of ever finding your way out.

No snares. No entanglements. Complete freedom for the first time in memory. Jumping Jesus, what a feeling! Any one of a million alternatives is available to you now. You can live the way you want to, anywhere you want to. Nothing to hold you back.

You want to see it all as fast as possible. Oceana, the underwater cities, the moon, the planets, everything. You'd do it all in a day if you could. What you really need is time to organize, a place to stay and think and sort things out in your own mind. Where will you go first? What will you do first?

"I always wanted to live in an apartment on Riverside Drive overlooking the Hudson River."

The beltway whips you toward Manhattan, sealed alone in your private booth, through a suburban sprawl that is not altogether different from the one you remember.

"A man in my position *needs* a Riverside Drive address."

Buildings are not much taller, except for a super high-rise here and there, and traffic is nonexistent.

"The old two-family house out in Brooklyn is probably gone now anyway."

There is more open space now; the population has thinned out; the people you see are either waiting to get on the beltway or shopping and walking leisurely on overhead promenades.

"But it *would* be good to see the old neighborhood. They'd never believe it out there if they could see me now. Me, a Riverside Drive surgeon."

Except for their clothes, people have not changed much in appearance in three-quarters of a century, at least not at first glance.

Later on you will learn to pick out the various prosthetic accoutrements with the practiced eye of a surgeon.

"To hell with the old crowd. They were all a bunch of green-eyed bastards anyway."

The Manhattan skyline is amazingly and pleasantly familiar as you are swept toward the city. No doubt, thousands of structures have come down and thousands more gone up since last you saw it, but the exciting

denticulated pattern has not been altered in the process. The East River is a glittering blue stream when you pass over on the beltway, not far from where the old Queensborough Bridge used to be. Supposedly it has been restored to the purity of Washington Irving's day, but it will be quite a while before you can get yourself to stick so much as a finger in it—another bit of conditioning that will be a long time dying.

Your first day out is evidently going to be a series of surprises. You debark at the beltway terminal at Fifty-ninth and First, and discover that the area has not changed appreciably since the late 1970s. The old sidewalks have been replaced by moving conveyor belts, First Avenue is a medium-speed beltway moving human traffic north and south, and there are walkways spanning the thoroughfare at the corners for pedestrians to cross.

But it has not really changed.

The bars, boutiques, restaurants, pizza parlors, delicatessens, and grocery stores are the same (or of the same type at least) as they have been for as long as you can remember. You feel dizzy at this discovery. A New Yorker's dream has materialized—"overnight," as far as you are concerned. New York of the distinct neighborhoods and the variegated people and life-styles has been preserved intact at Fifty-ninth Street and First Avenue, minus all the headaches of filthy air, dog shit brimming over the curbs, people ramming into one another every time they turn around, and politicians dipping their greedy fingers in the pocketbooks of honest citizens.

New York 2054 is like New York 1978 on the Fourth of July weekend when everybody was out of town and you could actually sit down at a bar.

Without making a conscious decision, you find yourself flying over the promenade and dashing toward Second Avenue. You use the footpath beside the moving sidewalk, both for exercise and because you are too impatient to

saunter along at five miles per hour. Your feet, operating with a will of their own, take you up to Third, then south on Third toward Fifty-fifth.

Your greatest hope, your wildest dream has been realized: there, sitting with splendid indifference amid the towering steel and glass cliffs of the business world, is none other than P. J. Clarke's, looking the way it always had and, apparently, always would.

"I always wanted to have a drink in this joint."

Your knees shake as you push your way through the frosted, stained-glass doors inside the saloon.

"Sawdust on the floor, just like in the old days!"

"What'll it be, sir?" asks the portly Irish bartender, his huge red mustache curled into handlebars at the ends.

"I see you've still got those long-handled beerpulls, just like I used to read about."

"Nothing's changed here, sir."

"How about the john that's supposed to look like a cathedral. I always wanted to pee in a place like that."

"Yes. And we still keep real ice in the urinals for your pleasure."

"Christ Almighty! It's like entering a time woof or a time warp or whatever the hell they call it. You guys have *frozen time* here."

"Very good, sir. Frozen time. I like that very much."

"I'll tell you what. Let me have a tall, frosty Ballantine, and have one for yourself."

Yes, you know that everything will be all right so long as you can stay in this place and drink your glass of beer and never have to worry about tomorrow.

24

The Immortalist

Time was frozen everywhere in Manhattan.

After three days you have been able to take it all in—the White Horse and Lion's Head in Greenwich Village, McSorley's in the East Village, the Abbey Tavern on East Twenty-sixth, Hurley's on the edge of the theater district, the Ginger Man and O'Neals' Aloon near Lincoln Center, the Heidelberg and Gay Vienna in Yorkville—all of them permanently frozen in time. You're beginning to feel a bit stiff yourself by the end of your tour.

At the rate you've been going, you'll be needing a liver transplant in no time. While synthetic organs are more durable (you can pour lighter fluid on an artificial liver without so much as damaging the outer skin), you'd best hang on to the originals as long as possible.

Finally you gravitate automatically to your new home, the one corner of the universe that you will call your own, no matter how many centuries will have passed into history, no matter how many resurrections you will undergo in the future: you are now a citizen of the upper Westside of Manhattan.

Here, as elsewhere in the city, the character and essential flavor has been preserved for posterity. Zabar's is still going strong on Eighty-first Street, exuding the eclectic aroma of onion rye bread, goose liver paté, and freshly made potato

salad. The bagel shop nearby is also in business dispensing hot bagels, cream cheese, and Nova Scotia salmon at three o'clock in the morning. The Ansonia Hotel, declared a city landmark way back in the 1970s, looms like a medieval fortress, its turrets and spires in sharp relief against a blue, smogless sky. Further up the beltway, which is still called Broadway, the New Yorker and Thalia advertise classic films from the early part of the century.

Amsterdam and Columbus avenues have also been converted to beltways, and the slums that used to infest the area have been transformed into modern high-rises and refurbished townhouses. Crime is no longer a problem here, since drugs have been sold openly at competitive prices since the mid-1980s.

You've been adrift for nearly four days, touring the city and soaking up as much as you could all at once, and suddenly your next step is clearly defined. You are going to live where you've always wanted to, in a penthouse apartment on Riverside Drive overlooking the Hudson River.

For three gold ounces a month, you find a spread fit for a true immortalist, twenty stories over the Drive with a view of the George Washington Crossway further to the north. You look up at the moon overhead and wonder how many vacationers are staring down at you from the veranda of Earthview Lodge.

Once ensconced in your new digs, you can almost feel your life taking root all over again. It's a comfortable feeling, warm and secure, but before it becomes too much of a habit you decide to do something right away about satisfying your wanderlust.

You spend nearly a year taking the grand tour. For the first couple of months, you are the innocent tourist visiting one ocean community after another. Two or three months more are spent sight-seeing on land (how pleasant Paris,

London, and Tokyo are now that you can breathe with impunity and move freely from culture to culture without confronting border guards and customs agents). Another eight weeks pass beneath the oceans while you enjoy the hospitality and luxuries of the various subnational cities. The final leg of the journey takes you to several lunar villages and scientific research laboratories on the far side of the moon.

Then you are back on Riverside Drive, convinced more than ever that you have made the right move, the only move possible for you.

The third or fourth day back, your doorbell rings. You answer it. She is ripe and soft, a pure delight. Her raven hair spills over her shoulders. Her eyes flash.

"Hello," she says. "I'm your neighbor from across the hall. I was wondering if I could trouble you for a cup of sugar."

"Don't tell me. Your name is Fantena, I know it."

"Fantena, hell. My name is Sylvia Greenbaum, and all I want is a fucking cup of sugar, not a crock of horseshit if it's not too much trouble, that is."

"Of course. Step right in. I'm a new surgeon in the building. Can I offer you a glass of wine?"

"A surgeon? A glass of wine? I'd love one," she says, kicking off her shoes and making herself comfortable on your sofa.

Yes, you have come to the right place. You are going to enjoy this new life for as long as you can hang on to it. You will cheat time in any manner possible. Someday soon, time will cease to exist altogether and you will have no worries at all about tomorrow.

Someday soon you will be a true immortalist.