PART ONE: THE AUDIENCE AND THE MYTH OF ENTERTAINMENT

"The most important part about tomorrow is not the technology or the automation, but that man is going to come into entirely new relationships with his fellow men. He will retain much more in his everyday life of what we term the naïveté and idealism of the child. I think the way to see what tomorrow is going to look like is just to look at our children."

R. BUCKMINSTER FULLER

As a child of the New Age, for whom "nature" is the solar system and "reality" is an invisible environment of messages, I am naturally hypersensitive to the phenomenon of vision. I have come to understand that all language is but substitute vision and, as Teilhard de Chardin has observed, "The history of the living world can be summarized as the elaboration of ever more perfect eyes within a cosmos in which there is always something more to be seen."¹

It is that "something more" that has fascinated me since first I became aware of the limited range of ordinary consciousness, chiefly as manifested in the cinema. We are witnessing a metamorphosis in the nature of life on earth. Art, science, and metaphysics, separated for so long in the specialized world of Western man, are reconverging; the interface reveals a broader and deeper reality awaiting our investigation. An increasing number of humans are beginning to understand that man probably never has perceived reality at all, because he has not been able to perceive himself. The realization is not new; only the context is unique: a vast portion of our culture, free of the conditioning of and nostalgia for past environments, has intuited something fundamentally inadequate in prevailing attitudes toward the notion of reality.

¹Pierre Teilhard de Chardin, *The Phenomenon of Man (*New York: Harper & Row, 1959), p. 31.

In most languages of most cultures throughout history, seeing has been equated with understanding. The entire Indo-European linguistic system is filled with examples: *I see, ya vizhu, je vois.* Yet nearly twenty-four hundred years ago Plato asserted, "The world of our sight is like the habitation in prison."² Recent studies in anatomy, physiology, and anthropology have led to a similar conclusion.³ We have come to see that we don't really see, that "reality" is more within than without. The objective and the subjective are one.

At the same time, science has taught that there is no purely physical reason for the disparity between apprehending and comprehending. We know, for example, that thirty-eight percent of fibers entering or leaving the central nervous system are in the optic nerve. It is estimated that as much as seventy-five percent of information entering the brain is from the eyes. Current research indicates approximately one hundred million sensors in the retina and only five million channels to the brain from the retina. There is a great deal of evidence to suggest that information processing is done in the eye before data are passed to the brain.⁴

The metaphysical space that separates father and son so dramatically in what we call the generation gap was manifested on a global scale on July 20, 1969. In television's elaborate movie-like subjective-camera "simulation" of the first moon landing, the history of subjective art with its emphasis on content came into total confrontation with the history of objective art and its emphasis on process. As we saw the event, reality was not half as "real" as the simulation because it was the reality of a process of perception. We were seeing nothing but videospace; the simulated reality turned out to be only the reality of a simulation. Objective awareness of a subjective process was all that mattered, and history's simulation suddenly became irrelevant. Thousands of years of theatrical

²Plato, *The Republic,* Book VIII, *ca.* 390 B.C.

³Extensive research on physiological conditioning is found in *The Influence of Culture on Visual Perception*, by Marshall H. Segall, Donald T. Campbell, and Melville J. Herskovits (Indianapolis: Bobbs-Merrill, 1966).

⁴F. R. Sias, Jr., "The Eye as a Coding Mechanism," *Medical Electronic News,* quoted in: Nels Winkless and Paul Honore, "What Good Is a Baby?" *Proceedings of the AFIPS 1968 Fall Joint Computer Conference.*

tradition were demolished in two hours before an audience of four hundred million world persons.

In the ascending spiral of evolution each new generation absorbs the experiences of the previous level and expands upon them. Teilhard has termed this *hominization*, the process by which the original protohuman stock becomes increasingly more human, realizing more of its possibilities. This "consciousness expansion" has reached a velocity of evolutionary acceleration at which several transformations occur within the life-span of a single generation. Because of mankind's inevitable symbiosis with the mind-manifesting hallucinogens of the ecology on the one hand, and his organic partnership with machines on the other, an increasing number of the inhabitants of this planet live virtually in another world. The messages to be discussed in this book are of that world.

It is a world infinitely more natural and complete than that of commercial cinema or television, which is used to confirm the existing consciousness rather than to expand it. Art is the language through which we perceive new relationships at work in the environment, both physical and metaphysical. Indeed, art is the essential instrument in the very development of that consciousness. As Hermann Hesse observed, every important cultural gesture comes down to a morality, a model for human behavior concentrated into a gesture. Whitehead found it to be "the ultimate morality of the mind." Perhaps never before has a new model for human behavior been needed so urgently as today.

We who are about to inherit the earth from our fathers will receive it with a brave new design. We see the whole earth and thus we see the illusion that has characterized life upon it. We cannot accept the truths and values of a world in which we no longer live. We are a generation of desperadoes. We move across the landscape with bold abandon because we intuit that the birth certificate is the only credit card. The word "utopian" is not anathema to us because we know that the illusion can be shattered within our own lifetimes, that the industrial equation means practical utopianism for the first time in history.

Our grasp of these realities is inarticulate; we cannot speak it. We are haunted by our own disenchantment and alienation as much as our parents are offended by it. The human condition, as this millen-

nium draws to a close, is one of decreasing intervals between increasing emergencies until nothing but emergency exists. We have nothing to lose. Spiritually we have nothing to lose because there is only sorrow in the values of the past and we have no tears left. Physically we have nothing to lose because we know that wealth can neither be created nor spent, that it goes nowhere and always increases with use.

"In this century alone we have gone from less than one percent of humanity being able to survive in appreciable health and comfort to forty-four percent of humanity surviving at a standard of living unexperienced or undreamed of before. This utterly unpredicted synergetic success occurred within only two-thirds of a century despite continually decreasing metallic resources per each world person ... the world total of seventy billion dollars in mined gold represents only three one-thousandths of one percent of the value of the world's organized industrial production resources."⁵

Within the larger context of radical evolution there are many local revolutions. One of them is the revolution of expectations that burns in the minds of the new consciousness. Eskimo children who've never seen a wheeled vehicle can identify the types of aircraft flying over the North Pole. Young Dyaks in the longhouses of equatorial Borneo listen to the Beatles on transistor radios. Teenage Bedouins wandering the Sahara hear Nasser's radio telling how Vietnamese children are being slaughtered half the world away.⁶

Dylan swears he sees his reflection so high above the wall upon which he once drew conclusions. Seeing that reflection is the revolution. It tells us old reasons for doing things that no longer exist. "There's less to do because circumstances do it for us: the earth. Art has obscured the difference between art and life; now life will obscure the difference between life and art."⁷ We no longer need to prove our right to live. We're struggling in the toil of old realities,

⁶Ditable Calder "The Speed of Change " *Bulletin of the Atomic*

⁵ R. Buckminster Fuller, *Operating Manual for Spaceship Earth (*Carbondale, III.: Southern Illinois University Press, 1969), pp. 82, 95.

⁶Ritchie Calder, "The Speed of Change," *Bulletin of the Atomic Scientists* (December, 1965).

⁷John Cage, A Year from Monday (Middletown, Conn.: Wesleyan University Press, 1968), pp. 9, 19.

stranded from our conscience, doing our best to deny it. We are tragically in need of new vision: expanded cinema is the beginning of that vision. We shall be released. We will bring down the wall. We'll be reunited with our reflection.

I'm writing at the end of the era of cinema as we've known it, the beginning of an era of image-exchange between man and man. The cinema, said Godard, is truth twenty-four times a second. The truth is this: that with the possibility of each man on earth being born a physical success there is no archetypal Man whom one can use in the culturally elitist manner and each man becomes the subject of his own study. The historical preoccupation with finding the one idea that is Man will give way to the idea that earth is, and then to the idea of other earths.

Radical Evolution and Future Shock in the Paleocybernetic Age

It is perhaps not coincidental that Western youth has discovered the *I Ching*, or *Book of Changes*, on a somewhat popular level as we move into the final third of the twentieth century. Change is now our only constant, a global institution. The human ecological biosphere is undergoing its second great transition, destined to be even more profound than the invention of agriculture in the Neolithic Age. If we can't see the change, at least we can feel it. Future shock affects our psyche and our economy just as culture shock disorients the Peace Corps worker in Borneo.

It is said that we are living in a period of revolution. But nothing sells like freedom: Revolution is big business. As the physicist P. W. Bridgman once said, the true meaning of a term is found by observing what a man does with it, not what he says about it. Since the phenomenon we call revolution is worldwide, and since it's felt in every human experience, perhaps we might think of it not as revolution but as radical evolution. Revolution is basically the same whether defined by Marx or the *I Ching:* removal of the antiquated. But revolution replaces one status quo with another. Radical evolution is never static; it's a perpetual state of polarization. We could think of it as *involuntary revolution*, but whatever terminology we apply that's the condition of the world today, the environment with which the artist must work. Radical evolution would be kinder if it were better understood; but it won't be so long as commercial entertainment cinema continues to represent a "reality" that doesn't exist.

Sociologist Alvin Toffler has stressed ephemerality as a chief aspect of radical evolution: "Smith Brothers Cough Drops, Calumet Baking Soda, Ivory Soap, have become institutions by virtue of their long reign in the marketplace. In the days ahead, few products will enjoy such longevity. Corporations may create new products knowing full well they'll remain on the market for only a matter of a few weeks or months. By extension, the corporations themselves as well as unions, government agencies and all other organiza-

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tions—may either have shorter life-spans or be forced to undergo incessant and radical reorganization. Rapid decay and regeneration will be the watchwords of tomorrow."⁸ Toffler observes that no reasonable man should plan his life beyond ten years; even that, he says, is risky. When parents speak of their sons becoming lawyers they are deceiving themselves and their sons, according to the sociologist, "Because we have no conception of what being a lawyer will mean twenty years hence. Most probably, lawyers will be computers." In fact, we can't be sure that some occupations will even exist when our children come of age. For example, the computer programmer, a job first created in the 1950's, will be as obsolete as the blacksmith within a decade; computers will reprogram and even regenerate themselves (IBM recently announced a new computer that repairs itself).

John McHale, coauthor of the *World Design Science Decade* documents with Buckminster Fuller, emphasizes expendability and impermanence in radical evolution: "Use value is replacing ownership value. For example, the growth of rental and services— not only in automobiles and houses, but from skis to bridal gowns to heirloom silver, castles and works of art... our personal and house-hold objects, when destroyed physically or outmoded symbolically, may be replaced by others exactly similar. A paper napkin, a suit, a chair, an automobile, are items with identical replacement value. Metals in a cigarette lighter today may be, within a month or year, part of an auto, lipstick case or orbiting satellite... the concept of permanence in no way enables one to relate adequately to our present situation."⁹

McHale has seen the need for a totally new world view as radical evolution speeds farther from our grasp. "There's a mythology abroad which equates the discovery and publication of new *facts* with new *knowledge*. Knowledge is not simply accumulated facts but the reduction of unrelated and often apparently irrelevant facts into new conceptual wholes."¹⁰ He's talking about completely new ways

⁸ Alvin Toffler, "The Future as a Way of Life," *Horizon* (Summer, 1965).

⁹John McHale, "The Plastic Parthenon," Dotzero (Spring, 1967).

¹⁰John McHale, "Information Explosion—Knowledge Implosion," *Good News*, eds. Edwin Schlossberg and Lawrence Susskind (New York: Columbia University Press, 1968)

of looking at the world and everything in it. This is proposition far more profound than mere political revolution, which Krishnamurti has characterized as "The modification of the right according to the ideas of the left."¹¹ The new consciousness transcends both right and left. We must redefine everything.

What happens to our definition of "intelligence" when computers, as an extension of the human brain, are the same size, weight, and cost as transistor radios? They're being developed through the microelectronics process of Large-Scale Integration.

What happens to our definition of "morality" when biochemists are about to unravel the secrets of the DNA/RNA interaction mechanism to create human life?

What happens to our definition of "man" when our next door neighbor is a cyborg (a human with inorganic parts)? There are several crude cyborgs in the world today.

What happens to our definition of "environment" when our video extensions bring us the reality of the solar system daily? What do we mean by "nature" under these circumstances? (McLuhan: "The first satellite ended nature in the conventional sense.")

What happens to our definition of "creativity" when a computer asks itself an original question without being programmed to do so? This has occurred several times.

What happens to our definition of "family" when the intermedia network brings the behavior of the world into our home, and when we can be anywhere in the world in a few hours?

What happens to our definition of "progress" when, according to Louis Pauwels: "For the really attentive observer the problems facing contemporary intelligence are no longer problems of progress. The concept of progress has been dead for some years now. Today it is a question of a change of state, a transmutation."¹² Or Norbert Wiener: "Simple faith in progress is not a conviction belonging to strength but one belonging to acquiescence and hence to weakness."¹³

¹¹ J. Krishnamurti, *The First and Last Freedom* (Wheaton, III.: Quest Books, 1968), pp. 25, 26.

¹²Louis Pauwels, Jacques Bergier, *The Morning of the Magicians (*New York: Avon Books, 1968), pp. xxii, xxiii.

¹³ Norbert Wiener, *The Human Use of Human Beings* (New York: Avon Books, 1967), p. 66.

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What happens to our definitions of "material" and "spiritual" when science has found no boundary between the two? Although it is still popularly assumed that the world is divided into animate and inanimate phenomena, virologists working at the supposed threshold between life and nonlife at the virus level have in fact discovered no such boundary. "Both animate and inanimate have persisted right across yesterday's supposed threshold in both directions... subsequently what was animate has become foggier and foggier... no life, per se, has been isolated."¹⁴

Indeed, what becomes of "reality" itself as science expands its mastery of the forces of the universe? "The paradox of twentiethcentury science consists of its *unreality* in terms of sense impressions. Dealing as it does in energy transformation and submicroscopic particles, it has become a kind of metaphysics practiced by a devoted priestly cult—totally as divorced from the common-sense notions of reality as was the metaphysics practiced by witch doctors and alchemists. It is not at all odd, then, to discover that the closer we come via the scientific method to 'truth,' the closer we come to understanding the 'truth' symbolized in myths."¹⁵

This, then, is merely a superficial glimpse at some of the phenomena that characterize the Paleocybernetic Age. Quite clearly man is in the paradoxical position of existing in a state of consciousness without being able to understand it. Man does not comprehend his relationship to the universe, either physical or metaphysical. He insists on "doing his thing" without the slightest notion of what his "thing" might be. This cosmic credibility gap exists primarily between the facts of scientific experience and the illusions of environmental conditioning as manifested in the global intermedia network.

¹⁴ R. Buckminster Fuller, "Planetary Planning," text of the *Jawaharlal Nehru Memorial Lecture,* New Delhi, India, November 13, 1969.

¹⁵ John N. Bleibtreu, *The Parable* of *the Beast* (New York: Collier Books, 1969), p. 112.

The Intermedia Network as Nature

The point I wish to make here is obvious yet vital to an understanding of the function of art in the environment, even though it is consistently ignored by the majority of film critics. It's the idea that man is conditioned by his environment and that "environment" for contemporary man is the intermedia network. We are conditioned more by cinema and television than by nature. Once we've agreed upon this, it becomes immediately obvious that the structure and content of popular cinema is a matter of cardinal importance, at least as serious as most political issues, and thus calls for comment not from journalists but from those who work at the matter, artists themselves.

The cinema isn't just something *inside* the environment; the intermedia network of cinema, television, radio, magazines, books, and newspapers *is* our environment, a service environment that carries the messages of the social organism. It establishes meaning in life, creates mediating channels between man and man, man and society. "In earlier periods such traditional meaning and value communication was carried mainly in the fine and folk arts. But today these are subsumed amongst many communicating modes. The term 'arts' requires expansion to include those advanced technological media which are neither fine nor folk."¹⁶

We've seen the need for new concepts regarding the nature of existence; yet concepts are expanded or constricted in direct relation to the relevancy of prevailing languages. In a world where change is the only constant, it's obvious we can't afford to rely on traditional cinematic language. The world has changed immeasurably in the seventy years since the birth of cinema: for one thing "world" now includes the microcosm of the atom and the macrocosm of the universe in one spectrum. Still popular films speak a language developed by Griffith, Lumière, Méliès, derived from traditions of vaudeville and literature.

In the Agricultural Age man was totally passive, conditioned and victimized by the environment. In the Industrial Age man's role was

¹⁶ John McHale, "Education for Real," *Good News*.

participatory; he became more aggressive and successful in his attempts to control his environment. We're now moving into the Cybernetic Age in which man learns that to control his environment he must cooperate with it; he not only participates but actually recreates his environment both physical and metaphysical, and in turn is conditioned by it.

To be free of the toil of old relationships we must first be free of the conditioning that instills it within us. As radical evolution gains momentum the need to unlearn our past becomes increasingly clear: contemporary life is a process of miseducation/uneducation/reeducation, at a cost of much precious time. McLuhan has noted that the true significance of Pavlov's experiments was that any controlled man-made environment is a conditioner that creates "non-perceptive somnambulists." Since then science has discovered that "molecular memory" is operative in single-celled and some multi-celled organisms, and there's evidence that memory-in-the-flesh exists in humans as well. Biochemists have proven that learned responses to environmental stimuli are passed on phylogenetically from generation to generation, encoded in the RNA of the organism's physical molecular structure.¹⁷ And what could be a more powerful conditioning force than the intermedia network, which functions to establish meaning in life?

Science has proven that there's no such thing as "human nature." Just as water takes the shape of its container, so human nature is relative to its past and present conditioning. Optimum freedom of behavior and increased self-awareness are implicit in the industrial equation that is trending toward physical success for all men; Paleocybernetic man, however, has not learned to control the environment he creates. "The content of what is available for emulation on the part of the young in each society is itself culturally shaped and limited... the individual typically remains, throughout his lifetime, unaware of how his own habits, which to him appear 'only natural,' in fact result from a learning process in which he never had an opportunity to attempt alternative responses."¹⁸ This process

¹⁷ Bleibtreu, *op. cit.,* pp. 85-114.

¹⁸ Segall, Campbell, Herskovits, *op. cit.*, p. 10.

of enculturation produces *phenomenal absolutism*, the tendency to interpret our experience as volitional, objective, and absolute; it will have ever-increasing consequences as radical evolution continues to accelerate.

Popular Culture and the Noosphere

Contemporary man is fortunate to have a tool that makes him aware of his own enculturation and thus he enjoys greater psychic freedom than his ancestors. This tool is what Teilhard de Chardin has called the *noosphere*, the film of organized intelligence that encircles the planet, superposed on the living layer of the biosphere and the lifeless layer of inorganic material, the lithosphere. The minds of three-and-a-half-billion humans—twenty-five percent of all humans who ever lived—currently nourish the noosphere; distributed around the globe by the intermedia network, it becomes a new "technology" that may prove to be one of the most powerful tools in man's history.

John McHale: "World communications... diffuse and interpenetrate local cultural tradition, providing commonly-shared cultural experience in a manner unparalleled in human history. Within this global network the related media share and transmit man's symbolic needs and their expression on a world scale. Besides the enlargement of the physical world, these media virtually extend our psychical environment, providing a constant stream of moving, fleeting images of the world for our daily appraisal. They provide *psychic mobility* for the greater mass of our citizens. Through these devices we can telescope time, move through history, and span the world in a great variety of unprecedented ways."¹⁹

Like all energy sources the noosphere can be used for negative purposes. Its resources can be manipulated to disguise craft as creativity, especially in these Paleocybernetic days when we're still impressed by the sudden influx of information. Fuller has differentiated craft from industry by demonstrating that craft is inherently local in technique and effect whereas industry is inherently comprehensive and universal in technique and effect. One might make a similar analogy between entertainment and art: entertainment is inherently "local," that is, of limited significance, whereas art is inherently universal and of unlimited significance. Too often today we find that so-called artists working in the intermedia

¹⁹ John McHale, "The Plastic Parthenon."

network are little more than adroit imitators, collectors of data and phenomena, which they glean from the noosphere and amalgamate into packages that are far from whole. They're clever and glib; they've made an art of selling themselves, but they know only effect, not cause; they are merchants of mannerisms.

It is precisely this confusion that clouds critical appraisal of "content" in the popular arts. All too frequently eclectic thinking is confused with creative thinking. The distinction is subtle to be sure: integrative thinking can be the highest form of creativity. Indeed both art and science function to reveal similarities within an a priori universe of apparent dissimilarities. As with all else, however, there's an art and a craft to thinking, and the popular entertainments remain at the craft level by the very nature of their purpose.

The intermedia network has made all of us artists by proxy. A decade of television-watching is equal to a comprehensive course in dramatic acting, writing, and filming. Compressed in such constant and massive dosage, we begin to see the methods and clichés more clearly; the mystique is gone-we could almost do it ourselves. Unfortunately too many of us do just that: hence the glut of submediocre talent in the entertainment industry. Paradoxically this phenomenon carries with it the potential of finally liberating cinema from its umbilical to theatre and literature, since it forces the movies to expand into ever more complex areas of language and experience. Evidence of television's effect on the cinema is already apparent, as we shall see in our discussion of synaesthetic cinema. From another more immediate perspective, however, it is guite unfortunate. We live in an age of hyperawareness, our senses extended around the globe, but it's a case of aesthetic overload: our technological zeal has outstripped our psychic capacity to cope with the influx of information. We are adrift on the surface of radical evolution unable to plumb the depths of its swift and turbulent current.

Art, Entertainment, Entropy

"It is easier to copy than to think, hence fashion. Besides, a community of originals is not a community."

WALLACE STEVENS

The current generation is engaged in an unprecedented questioning of all that has been held essential. We question traditional concepts of authority, ownership, justice, love, sex, freedom, politics, even tradition itself. But it's significant that we don't question our entertainment. The disenfranchised young man who dropped out of college, burned his draft card, braids his hair, smokes pot, and digs Dylan is standing in line with his girl, who takes the pill, waiting to see *The Graduate* or *Bonnie and Clyde* or *Easy Rider*—and they're reacting to the same formulas of conditioned response that lulled their parents to sleep in the 1930's.

We've seen the urgent need for an expanded cinematic language. I hope to illustrate that profit-motivated commercial entertainment, by its very nature, cannot supply this new vision. Commercial entertainment works against art, exploits the alienation and boredom of the public, by perpetuating a system of conditioned response to formulas. Commercial entertainment not only isn't creative, it actually destroys the audience's ability to appreciate and participate in the creative process. The implications become apparent when we realize that, as leisure time increases, each human will be forced to become a creative, self-sufficient, empirical energy laboratory.

D. H. Lawrence has written: "The business of art is to reveal the relation between man and his circumambient universe at this living moment. As mankind is always struggling in the toil of old relationships, art is always ahead of its 'times,' which themselves are always far in the rear of the living present." Jean-Jacques Lebel stated the same idea in different terms when he described art as "the creation of a new world, never seen before, imperceptibly gaining on reality."²⁰

²⁰ Jean-Jacques Lebel, "On the Necessity of Violation," *The Drama Review* (Fall, 1968).

We've seen that man is conditioned by, and reacts to, certain stimuli in the man-made environment. The commercial entertainer is a manipulator of these stimuli. If he employs a certain trigger mechanism, we're guaranteed to react accordingly, like puppets, providing he manipulates the trigger properly. I'm not saying the artist doesn't resort to audience manipulation; we know he often does. The point, however, is the motivation in doing so. If the artist must resort to trigger mechanisms to make himself clear, he will; but it's only a means to his end. In the case of the commercial entertainer, however, it's the end in itself.

Plot, story, and what commonly is known as "drama" are the devices that enable the commercial entertainer to manipulate his audience. The very act of this manipulation, gratifying conditioned needs, is what the films actually are about. The viewer purchases it with his ticket and is understandably annoyed if the film asks him to manipulate himself, to engage in the creative process along with the artist. Our word poetry derives from the Greek root *poiein* meaning "to make" or "to work." The viewer of commercial entertainment cinema does not want to work; he wants to be an object, to be acted upon, to be manipulated. The true subject of commercial entertainment is this little game it plays with its audience.

By perpetuating a destructive habit of unthinking response to formulas, by forcing us to rely ever more frequently on memory, the commercial entertainer encourages an unthinking response to daily life, inhibiting self-awareness. Driven by the profit motive, the commercial entertainer dares not risk alienating us by attempting new language even if he were capable of it. He seeks only to gratify preconditioned needs for formula stimulus. He offers nothing we haven't already conceived, nothing we don't already expect. Art explains; entertainment exploits. Art is freedom from the conditions of memory; entertainment is conditional on a present that is conditioned by the past. Entertainment gives us what we want; art gives us what we don't know we want. To confront a work of art is to confront oneself—but aspects of oneself previously unrecognized.

The extent to which blatant audience manipulation not only is tolerated but extolled is alarming. Alfred Hitchcock, for example, in his interview with François Truffaut, finds merit in his ability to manipulate preconditioned needs for formula stimulus. Speaking of *Psycho*, Hitchcock frankly admits: "It wasn't a message that stirred them, nor was it a great performance, or their enjoyment of the novel... they were aroused by the construction of the story, and the way in which it was told caused audiences all over the world to react and become emotional."²¹

It is essential to understand that Hitchcock openly admits that he didn't even try to expand awareness or to communicate some significant message, but only exploited a universal tradition of dramatic manipulation in order to supply his audience with the gratification it paid for. The audience sees itself and its dreams reflected in the film and reacts according to memory, which Krishnamurti has characterized as being always conditioned. "Memory," says Krishnamurti, "is always in the past and is given life in the present by a challenge. Memory has no life in itself; it comes to life in the challenge [preconditioned formula stimulus]. And all memory, whether dormant or active, is conditioned."22 It is this process that the entertainment industry calls audience identification.

To a healthy mind, anything that is primarily art is also immensely entertaining. It seems obvious that the most important things should be the most entertaining. Where there's a difference between what we "like" and what we know to be vital, we have a condition of schizophrenia, an unnatural and destructive situation. I speak deliberately of a "healthy" mind as one capable of creative thinking. Filmmaker Ken Kelman: "The old cinema removes experience, making us see things along with (or through) a protagonist with whom we identify, and a plot in which we are caught. Such an approach tends toward not only a lack of viewpoint, of definition of whose experience it is, but also filters the power of sight into mere habit, dissolves insight into vicariousness. The spectator is reduced to a voyeur-which is, increasingly, the individual's role in society at large."23

Minimalist painter David Lee: "When people do not trust their senses they lack confidence in themselves. For the last few centuries people have lacked confidence. They have not trusted

²¹ François Truffaut, *Hitchcock* (New York: Simon & Schuster, 1968), p. 211. ²² Krishnamurti, *op. cit.,* p. 54.

²³ Ken Kelman, "Anticipations of the Light," *The New American Cinema*, ed. Gregory Battcock (New York: Dutton Paperbacks, 1967), pp. 24, 25.

their experience to provide a standard for knowing how to act."²⁴ It is quite obvious that most of us not only don't know much about art, we don't even know what we like. Krishnamurti: "One of the fundamental causes of the disintegration of society is copying, which is the worship of authority."²⁵

Imitation is the result of inadequate information. Information results in change. Change requires energy. Energy is the result of adequate information Energy is directly proportional to the amount of information about the structure of a system. Norbert Wiener: "Information is a name for the content of what is exchanged with the outer world as we adjust to it and make our adjustment felt upon it ... to live effectively is to live with adequate information."²⁶ From the cinema we receive conceptual information (ideas) and design information (experiences). In concert they become one phenomenon, which I've described as the experiential information of aesthetic conceptual design. This information is either useful (additive) or redundant. Useful information accelerates change. Redundant information finally becomes misinformation, which results in negative change.

In communication theory and the laws of thermodynamics the quantity called entropy is the amount of energy reversibly exchanged from one system in the universe to another. Entropy also is the measure of disorder within those systems. It measures the lack of information about the structure of the system. For our purposes "structure of the system" should be taken to mean "the human condition," the universal subject of aesthetic activity. Entropy should be understood as the degree of our ignorance about that condition. Ignorance always increases when a system's messages are redundant. Ignorance is not a state of limbo in which no information about the structure of the system.

The First Law of Thermodynamics states that energy is constant: it cannot be created or destroyed; its form can change, but not its quantity.

²⁴David Lee, "A Systematic Revery from Abstraction to Now," *Minimal Art,* ed. Gregory Battcock (New York: E. P. Dutton, 1968), p. 195.

²⁵Krishnamurti, *op. cit.,* p. 41.

²⁶Wiener, *op. cit.*, pp. 26, 27.

The Second Law states that the amount of energy within a local system is naturally entropic-it tends toward disorder, dissipation, incoherence. And since energy is defined as "a capacity to rearrange elemental order," entropy, which runs counter to that capacity, means less potential for change. We've learned from physics that the only anti-entropic force in the universe, or what is called negentropy (negative entropy), results from the process of feedback. Feedback exists between systems that are not closed but rather open and contingent upon other systems. In the strictest sense there are no truly "closed" systems anywhere in the universe; all processes impinge upon and are affected by other processes in some way. However, for most practical purposes, it is enough to say that a system is "closed" when entropy dominates the feedback process, that is, when the measure of energy lost is greater than the measure of energy gained.

The phenomenon of man, or of biological life on earth taken as a process, is negentropic because its subsystems feed energy back into one another and thus are self-enriching, regenerative. Thus energy is wealth, and wealth according to Buckminster Fuller is "the number of forward days a given system is sustainable." Biologist John Bleibtreu arrived at a similar conclusion when he noted that the concept of time can best be viewed as a function of the Second Law of Thermodynamics-that the measure of entropy in a system is a measure of its age, or the passage of time since the system originated.²⁷ In other words the degree of a system's entropy is equal to redundancy or stasis whereas its negentropy is equal to kinesis or change. So information becomes energy when it contributes to the self-enriching omni-regenerative wealth of the system. When it's not contributing (i.e., redundant) it is allowing the natural entropy to increase.

"It is possible to treat sets of messages as having an entropy like sets of states of the external world... in fact, it is possible to interpret the information carried by a message as essentially the negative of its entropy... that is, the more probable the message the less information it gives. Clichés, for example, are less illuminating than great poems."²⁸ Thus the more information concerning the human

 ²⁷ Bleibtreu, *op. cit.*, p. 15.
²⁸ Wiener, op. cit., p. 31.

condition that the artist is able to give us, the more energy we have with which to modify ourselves and grow in accord with the accelerating accelerations of the living present.

Commercial entertainment may be considered a closed system since entropy dominates the feedback process. To satisfy the profit motive the commercial entertainer must give the audience what it expects, which is conditional on what it has been getting, which is conditional on what it previously received, ad infinitum. Inherent in the term "genre," which applies to all entertainment, is that it must be probable. The content of westerns, gangster movies, romances, etc., is probable in that it can be identified and comprehended simply by classification. The phenomenon of drama itself usually is not considered a genre, but is in fact the most universal and archetypical of all genres. Drama, by definition, means conflict, which in turn means suspense. Suspense is requisite on the expectation of known alternatives. One cannot expect the unknown. Therefore expectation, suspense, and drama are all redundant probable gualities and thus are noninformative.

Drama requires a plot that forces the viewer to move from point A to point B to point C along predetermined lines. Plot does not mean "story" (beginning-middle-end). It simply indicates a relatively closed structure in which free association and conscious participation are restricted. Since the viewer remains passive and is acted upon by the experience rather than participating in it with volition, there's no feedback, that vital source of negentropy. Norbert Wiener: "Feedback is a method of controlling a system by reinserting into it the results of its past performance... if the information which proceeds backward from the performance is able to change the general method and pattern of performance, we have a process which may well be called learning."²⁹ Fuller: "Every time man makes a new experiment he always learns more. He cannot learn less."³⁰

In the cinema, feedback is possible almost exclusively in what I call the synaesthetic mode, which we'll discuss presently. Because it is entirely personal it rests on no identifiable plot and is not probable. The viewer is forced to create along with the film, to interpret for himself what he is experiencing. If the information (either concept or

²⁹ *Ibid.,* p. 84.

³⁰ Fuller, *Spaceship Earth*, p. 92.

design) reveals some previously unrecognized aspect of the viewer's relation to the circumambient universe—or provides language with which to conceptualize old realities more effectively— the viewer recreates that discovery along with the artist, thus feeding back into the environment the existence of more creative potential, which may in turn be used by the artist for messages of still greater eloquence and perception. If the information is redundant, as it must be in commercial entertainment, nothing is learned and change becomes unlikely. The noted authority on communication theory, J. R. Pierce, has demonstrated that an increase in entropy means a decrease in the ability to change.³¹ And we have seen that the ability to change is the most urgent need facing twentieth-century man.

The notion of experimental art, therefore, is meaningless. All art is experimental or it isn't art. Art is research, whereas entertainment is a game or conflict. We have learned from cybernetics that in research one's work is governed by one's strongest points, whereas in conflicts or games one's work is governed by its weakest moments. We have defined the difference between art and entertainment in scientific terms and have found entertainment to be inherently entropic, opposed to change, and art to be inherently negentropic, a catalyst to change. The artist is always an anarchist, a revolutionary, a creator of new worlds imperceptibly gaining on reality. He can do this because we live in a cosmos in which there's always something more to be seen. When finally we erase the difference between art and entertainment—as we must to survive we shall find that our community is no longer a community, and we shall begin to understand radical evolution.

³¹ J R. Pierce, *Symbols, Signals and Noise* (New York: Harper & Brothers, 1961).

Retrospective Man and the Human Condition

The image I would offer as representative of the Paleocybernetic Age is that of the dying man whose life passes before him: a Retrospective Man who discovers the truth about himself too late to make use of it. The information explosion is not a window on the future so much as a mirror of the past catching up with the present. The intermedia network, or global communications grid, taps knowledge resources that always have existed in discrete social enclaves around the planet and saturates them into the collective consciousness. Suddenly the mass public "discovers" African culture, East Indian and American Indian cultures, folk music, politics. Knowledge previously the domain of scholars becomes common knowledge, and precisely at that point when the old order is about to fade it sees itself clearly for the first time. William Burroughs has called it the Age of Total Confront, noting that all the heretofore invisible aspects of our condition have guite suddenly become visible.

Through Duchamp, Cage, and Warhol, for example, we have rediscovered art in the ancient Platonic sense in which there's no difference between the aesthetic and the mundane. Although these men certainly fulfill an *avant-garde* function in present society, they in fact conform to the most universal and enduring definition of art. If they've been rejected as artists by the majority of our citizens it's because we've been conditioned by an economic system in which aesthetic concerns must assume a secondary position if the system is to survive. Thus art is separated from common experience and an elite hierarchy is established, which seems only natural to everyone caught up in the economic struggle. John Dewey: "When art attains classic status it becomes isolated from the human conditions under which it was brought into being and from the human consequences it engenders in actual life experience... when, because of their remoteness, the objects acknowledged by the cultivated to be works of fine art seem anemic to the mass of people, aesthetic hunger is likely to seek the cheap and the vulgar."32

Twentieth-century man is retrospective also because the symbolic

³² John Dewey, Art as Experience (New York: Capricorn, 1958), pp. 3, 6.

and value content of his messages-most of which take the form of commercial entertainment—is predominantly redundant. Norbert Wiener: "Society can only be understood through a study of the messages and the communication facilities which belong to it."33 Almost without exception, these messages tend to be concerned with what is known as the "human condition." The history of popular entertainment, in terms of its conceptual content, can be divided into three general categories: (1) idealization, which corresponds to states of happiness in which life is seen as a heavenly experience and man is characterized by his most noble deeds; (2) frustration, an expression of the conflict between inner and outer realities, when what is is not what should be; (3) demoralization, generally expressed as "the blues." In commercial entertainment cinema these three formulas are followed religiously, almost without exception, and usually comprise the nature of the message. They are the human condition, that which is taken for granted, the given, the facts of life. Everyone has ideals, everyone is frustrated, everyone gets the blues. But this information is redundant; we must go on from there.

Commercial entertainment is "popular" and not what we call art because it doesn't go on from there. To insure the widest possible acceptance of his message, the commercial entertainer must speak a common language. He copies, repeats, or imitates that which already exists within the grasp of the so-called average man. And the majority of us embrace it because it offers security, a crutch, in the knowledge that the miseries we suffer are shared by others. But art transcends the human condition. The artist doesn't want to hear our problems and our dreams—he already knows them. Instead he wants to know what we're doing about them, and he gives us the instruments we need for the task. The symbol is the basic instrument of thought; those who create new symbols—artists, scientists, poets, philosophers—are those who, by giving us new instruments to think with, give us new areas to explore in our thinking.

A rather indignant woman once asked me how I could have the nerve to suggest that an "abstract" film like Brakhage's *Dog Star Man* could be more important than an immortal classic like Renoir's *The Grand Illusion.* The new consciousness takes the view that films

³³ Wiener, *op. cit.*, p. 25.

like Renoir's do not contain one single insight into the nature of the human condition that has not already been absorbed by the collective consciousness. Bob Dylan: "How many times must a man look up before he can see the sky? How many ears must one man have before he can hear people cry?" And my own question: how many times must we acknowledge the human condition before it becomes redundant? How long must we tolerate the same facts of life before we begin seeking new facts? We intuit that the human condition has expanded since yesterday, but the popular arts aren't telling us. The human condition does not stop with what we know about ourselves. Each genuinely new experience expands the definition of the human condition that much more. Some are seeking those new facts, those new experiences, through the synaesthetic research of expanded cinema.

Barbara Rose: "The new art... posits an entirely new world view which shifts cultural values from a death-oriented, commemorative, past-enshrining culture to a life-oriented, present-oriented civilization... In this sense [Claes] Oldenburg's monuments represent, as he contended, not the appearance of something, but its disappearance... the tomb, the memorial, the shrine, the monument, all belong to cultures that commemorate."³⁴

John McHale: "The problem now is that those areas of our formal education which deal with the symbolic and value content of our culture do so almost entirely in terms of the past³⁵... The new educational technologies are largely being used as twentieth-century channels to convey a conceptual context which is still nineteenth century or earlier. The most recent example was mathematics, where the Sputnik-inspired 'second look' revealed that mathematics as generally taught was quite out of date. Science has begun to take a second look at its contents as currently taught. But the arts and humanities remain relatively unaware of any need to revise the conceptual framework of studies little removed from the polite education of eighteenth-century gentry."36

 ³⁴ Barbara Rose, "Problems of Criticism, VI," *Artforum* (May, 1969), p. 50.
³⁵ McHale, "Education for Real," *Good News.*

³⁶ McHale. "Information Explosion," *Good News*.

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The entropy of commercial entertainment is the chaos that results from its retrospective nature, forever commemorating past events, historical figures, social eras, life-styles, or the memory of the viewer, while the living present speeds farther from our grasp. Alvin Toffler: "We offer children courses in history; why not also make a course in 'future' a prerequisite for every student? A course in which the possibilities and probabilities of the future are systematically explored exactly as we now explore the social system of the Romans or the rise of the feudal manor?"³⁷ We invent the future in the present. We are what we think the future will be.

³⁷ Toffler, *op. cit.*

The Artist as Design Scientist

Our discussion obviously has excluded many important works of art that function completely within the genres of drama, plot, and story. *Citizen Kane, L'Avventura, Pierrot le Fou,* and 8½ are dramatic, plot films, yet no one denies their greatness. We know also that most of the truly significant films such as *Beauty and the Beast* or *Pather Panchali* operate entirely within parameters of the human condition as generally recognized. Moreover, common sense tells us that the artist *must* work with what exists, with the given, the human condition; he could produce no art at all if he relied exclusively on information that is totally new.

Yet the undeniable aesthetic value of these works does not contradict what I have said about art and entertainment. These films transcend their genres. They are not important for their plots or stories but rather for their design. Susan Sontag: "If there is any 'knowledge' to be gained through art, it is the experience of the form or style of knowing the subject, rather than a knowledge of the subject itself."³⁸

To perceive that the artist functions as design scientist we must first understand that in their broadest implications art and science are the same. Eddington's classic definition of science, "The earnest attempt to set in order the facts of experience," corresponds with Bronowski's view of science as "The organization of knowledge in such a way that it commands more of the hidden potential in nature...all science is the search for unity in hidden likenesses."³⁹ It's the same in art: to set in order the facts of experience is to reveal the relation between man and his circumambient universe with all its hidden potential.

Herbert Read: "Only in so far as the artist establishes symbols for the representation of reality can mind, as a structure of thought, take shape. The artist establishes these symbols by becoming conscious

³⁸ Susan Sontag, "On Style," *Against Interpretation* (New York: Delta Books), p. 22.

³⁹ J. Bronowski, *Science and Human Values* (New York: Harper & Brothers, 1965), pp. 3, 13.

of new aspects of reality and by representing his consciousness in plastic or poetic form... it follows that any extension of awareness of reality, any groping beyond the threshold of present knowledge, must first establish its sensuous imagery."40

Our word "design" is composed of "de" and "sign," indicating that it means "to remove the symbol of." In this context "symbol" signifies ideas distinct from experiences. As design scientist the artist discovers and perfects language that corresponds more directly to experience; he develops hardware that embodies its own software as a conceptual tool for coping with reality. He separates the image from its official symbolic meaning and reveals its hidden potential, its process, its actual reality, the experience of the thing. (A. N. Whitehead: "Process and existence pre-suppose each other.") He establishes certain parameters that define a discrete "special case" phenomenon, principle, or concept known as the subject. The work, in effect, poses this "problem" of perception and we as viewers must draw from this special case all the "general case" metaphysical relationships that are encoded within the language of the piece.

This language is the experiential information of aesthetic conceptual design; it is addressed to what Wittgenstein termed the "inarticulate conscious," the domain between the subconscious and the conscious that can't be expressed in words but of which we constantly are aware. The artist does not point out new facts so much as he creates a new language of conceptual design information with which we arrive at a new and more complete understanding of old facts, thus expanding our control over the interior and exterior environments.

The *auteur* theory of personal cinema indicates those instances when the filmmaker's design science transcends the parameters of his genre; our comprehension of that genre, that human condition is thus expanded. But cybernetics has demonstrated that the structure of a system is an index of the performance which may be expected from it.⁴¹ That is, the conceptual design of a movie determines the variety and amount of information we're likely to obtain from it. And since of information we've seen that the amount is

⁴⁰Herbert Read, *Icon and Idea* (New York: Schocken Books, 1965), p. 53.

⁴¹Wiener, °op. cit., p. 79.

directly proportional to the degree of available choices we can see that drama, story, and plot, which restrict choice, also restrict information. So the auteur is limited to developing new designs for old information, which we all know can be immensely enjoyable and instructive. There are no "new" ideas in *L'Avventura*, for example, but Antonioni voiced the inarticulate conscious of an entire generation through the conceptual and structural integrity of his transcendental design science, merging sense and symbol, form and content.

Rudolph Arnheim: "Perceiving achieves at the sensory level what in the realm of reasoning is known as understanding... eyesight is insight."⁴² If we realize that insight means to see intuitively, we acknowledge that Arnheim's assertion is true only when ordinary vision—conditioned and enculturated by the most vulgar of environments—is liberated through aesthetic conceptual design information. Film is a way of seeing. We see through the filmmaker's eyes. If he's an artist we become artists along with him. If he's not, information tends toward misinformation.

The artist's intuitive sense of proportion corresponds to the phenomenon of absolute pitch in musicians and answers a fundamental need in comprehending what we apprehend. In the final analysis our aptitudes and our psychological balance are a result of our relation to images. The image precedes the idea in the development of consciousness: an infant doesn't think "green" when it looks at a blade of grass. It follows that the more "beautiful" the image the more beautiful our consciousness.

The design of commercial entertainment is neither a science nor an art; it answers only to the common taste, the accepted vision, for fear of disturbing the viewer's reaction to the formula. The viewer's taste is conditioned by a profit-motivated architecture, which has forgotten that a house is a machine to live in, a service environment. He leaves the theatre after three hours of redundancy and returns home to a symbol, not a natural environment in which beauty and functionality are one. Little wonder that praise is heaped on films whose imagery is on the level of calendar art. Global man stands on the moon casually regarding the entire spaceship earth in a glance,

⁴²Rudolph Arnheim, *Art and Visual Perception* (Los Angeles, Calif.: University of California Press, 1954), p. 37.

yet humanity still is impressed that a rich Hollywood studio can lug its Panavision cameras over the Alps and come back with pretty pictures. "Surpassing visual majesty!" gasp the critics over A *Man and a Woman* or Dr. *Zhivago*. But with today's technology and unlimited wealth who couldn't compile a picturesque movie? In fact it's a disgrace when a film is not of surpassing visual majesty because there's a lot of that in our world. The new cinema, however, takes us to another world entirely. John Cage: "Where beauty ends is where the artist begins." Blank Page

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