

NOETIC SCIENCES

REVIEW



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As separate beings, we are not self-sufficient. We are able to live because we are sustained by the environment. Thus it is only natural that we should be grateful to all that supports our life: the stars, the stones, the vegetation, the animals, human beings and their works. In giving thanks, we become open to dimensions beyond the purely personal.

Gordon Onslow Ford, Artist
Institute Lecturer

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Editor: Barbara McNeill
Associate Editor: Carol Guion
Contributing Editor: Thomas J. Hurley III
Typesetting & Layout: Leona Jamison
Print Production: Samuel Matthews

The Institute of Noetic Sciences was founded in 1973 to support research and education on human consciousness. A tax-exempt, non-profit public foundation, the Institute's purposes are to broaden knowledge of the nature and potentials of mind and consciousness, and to apply that knowledge to the enhancement of the quality of life on the planet.

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THE COVER

Our cover graphic represents Earth at four points in its orbit, corresponding to the seasonal equinoxes and solstices. Proceeding in a counterclockwise direction, Winter is at the upper right, followed by Spring, Summer and Autumn. Art by Kevin O'Farrell.

Dimensions of Healing

by Michael Murphy

Spiritual healing, as I define it here, calls upon a transcendent principle to restore health and promote normal or exceptional functioning. Defined in this manner, the chief characteristic which distinguishes it from ordinary suggestion and placebo cures is its dependence upon a dimension beyond ordinary physical, emotional or mental experience.

People who do spiritual healing generally believe they draw upon supernormal energies to accomplish their cures. Some experimental evidence appears to confirm their intuition; a number of carefully controlled studies have shown that experimenters may influence bacteria, plants or animals by intention, imagery and empathy, without any apparent physical agency. Because they rule out suggestion and the placebo effect, such experiments support the view that healers may indeed assist their subjects as they say they do, by some sort of spiritual or paranormal influence.

But healing of this kind may also occur without a healer, through the influence of a remarkable event, a sufferer's own will and energies, or, as in this article, a shrine such as the one at Lourdes.

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Editor's note: The Institute of Noetic Sciences is collaborating with Michael Murphy and his Esalen Institute colleagues in producing a series of short publications based on findings from over a decade of research on exceptional human functioning. Inspired by Murphy's early novel *Jacob Atabet*, the Esalen project explores the possibility that further human development will include the power to radically alter the body through psychophysical disciplines and liberated powers of the mind.

The following article is adapted from Murphy's book, *The Future of the Body*, to be published by J. P. Tarcher in 1989. *(Photo by David L. Smith)*

The Esalen Institute

Study of Exceptional Functioning

In 1961, Michael Murphy and Richard Price, both 30, were interested in exploring the relationships between meditation, altered states of consciousness, the meeting of Western and Eastern philosophy and psychology, integrative therapeutic approaches and new definitions of health and wellness. They hoped to create a forum more open to the Mysteries than mainstream academia and free of the dogmatism common to spiritual centers organized around a single idea or charismatic individual.

The result: Esalen Institute, named after a Native American people who lived in that area centuries before. Following their respective instincts and interests, Price settled in as acting administrator, while Murphy set about inviting individuals whose thinking he admired: Aldous Huxley, Gerald Heard, Abraham Maslow, Carl Rogers, Rollo May, B. F. Skinner, Arnold Toynbee, Paul Tillich, Joseph Campbell, Gregory Bateson, Margaret Mead, Linus Pauling, Allen Ginsberg—to name only some.

Murphy's own ideas, especially those concerning possible next stages and avenues of human evolution, were particularly resonant with those of Huxley, Heard, and Maslow. He considers their thinking and their encouragement to have been seminal to his intellectual development, along with the ideas of the Indian philosopher Aurobindo. It was, in fact, Aurobindo's ideas about the co-evolution of consciousness and the body that started Murphy on his twelve-year writing and research project, the Esalen Institute Study of Exceptional Functioning.

Arguing that human evolution may be far from complete, Murphy proposes that "we can effect life-giving transformations of the body through a combination of spiritual, psychological, and physical disciplines." He and his colleagues have assembled an archive of over 10,000 studies concerning extraordinary physical functioning,

drawn from more than sixty research fields, including meditation, hypnosis, visualization, sport, spiritual or mind-assisted healing, placebo research, contemplative practice, yoga, psychotherapy, the arts, shamanism, modern psychical research, and reports from everyday life.

"It is conceivable," Murphy says, "that a next stage of human development might involve the power to alter the physical body at will. Our project is studying extraordinary bodily functioning by analyzing the experience, behavior, belief systems, personality structures, and environmental conditions of the people involved. We're also looking closely at certain psychological processes that accompany the emergence of new physical capacities."

Among the evidence Murphy is studying for his book in progress, *The Future of the Body*:

- The specificity with which mental images can affect the body is revealed dramatically when deeply hypnotized people spontaneously exhibit welts that spell out words the hypnotist has suggested.

- Scientific journals have reported at least twenty-six kinds of physiological changes caused by various types of contemplative activity that can produce a complex, integrated set of bodily responses. These include the slowing of heart rate and breathing, the slowing and synchronization of brain waves, the reduction of sweating, and the lowering of lactate and adrenal-hormone levels in the blood.

- A schizophrenic man, possessed of an overwhelming desire to give birth, said he felt something "like a baby" moving in his stomach while hospitalized for his mental condition. During the next three weeks he gained sixteen pounds and his abdomen became more and more protuberant. Repeated medical tests discovered no pathology that could account for the growth.

- The use of biofeedback to modify physiological functions once thought to be unconscious may even be extended to single cells within the body, as researcher John Basmajian showed when he trained people to vary firing patterns of specific nerve cells and the muscle fibers to which they were attached.

- Placebos, which deceive patients into activating their mind-body healing powers, demonstrate the body's responsiveness to highly specific suggestion. "The patient who is told what to expect from a certain drug can produce that effect when given a dummy pill," Murphy writes, "down to creating a surplus of specialized cells called eosinophils. Placebos can even produce the *side effects* of the drugs they mimic."

- In his classic work, *The Physical Phenomena of Mysticism*, the Jesuit scholar Herbert Thurston made detailed, balanced appraisals of the unusual physical powers of a group of Catholic saints and mystics. Thurston studied levitation, luminosity, "inedia" (the ability to live for long periods without food), and spontaneously appearing wounds, or stigmata. Murphy writes: "Like the welts and bruises that have appeared on the bodies of some psychiatric patients, these wounds dramatize the body's highly specific responsiveness to passionate images and their associated imagery. . . ."

"The pervasiveness of the capacity for more effective bodily functioning strongly suggests a species-wide endowment waiting to be developed," Murphy comments. "Indeed, our research has revealed that the power of the mind to change the body can manifest itself in all sorts of people, in all sorts of circumstances."

—Keith Thompson

Keith Thompson is a Research Associate of Esalen Institute.

*The careful work of the Lourdes Medical Bureau
has produced a huge store of case histories
providing many insights on the body's
remarkable responsiveness to spiritual influence.*

... continued from page 3

Medical Research at Lourdes

Genuine religious healing has occurred simply too often among too many kinds of people to be dismissed as a stunted response to adversity. Nowhere in modern times has this fact been more evident than at Lourdes, which is now visited annually by some 4 million pilgrims.

Several million people suffering a serious affliction have come from every part of the world to the shrine since its founding in 1858. In 1952, for example, 734 French, 229 Italian, 157 Belgian, 47 British, 25 German, 26 Swiss, 21 American, 15 African and 8 Indian medical people either witnessed or experienced cures at the shrine,¹ and among them there were Protestants, Jews, Buddhists, Hindus, Mohammedans and agnostics, as well as Catholics, some of them skeptical about religious claims.

Many doctors who visit Lourdes, moreover, work with the *Bureau des Constatations Medicales* in its long-standing effort to verify and understand cures there. Founded in 1883, the Bureau requires sick pilgrims to bring medical documents and register with the Medical Bureau when they arrive... so that they may be cared for properly at the sanctuary's hospitals and subsequently studied if they are cured. Physicians and medical researchers are encouraged to join the Bureau's special sittings where cures at the shrine are examined; and 2,000 or more may do so in a typical year, many of them contributing to the written accounts which are made of those cases which seem to be authentic. Every person who is examined by the Bureau is asked to undergo a second examination one year later at Lourdes, while inquiries are made among the doctors who treated them. If there is not a second examination, or if any crucial piece of evidence is missing, the entire case is rejected. If on the other hand all conditions of the inquiry are met, a complete dossier

is sent to the International Medical Committee of Lourdes composed of scientists and physicians from several nations, which takes up the investigation once more. If the findings of this study are positive, the Medical Bureau transmits them to the patient's bishop who may proclaim the cure to be miraculous. This process is so demanding that presently only 64 cures among the tens of thousands that have occurred at the Grotto since its founding in 1858 have been deemed miraculous by a bishop's authority.²

Because the cures at Lourdes have been screened with such care and examined from so many points of view, there is overwhelming evidence that many of them are authentic. Though medical science cannot explain them all, there can be no doubt that a great number of them happened just as their witnesses said. The Bureau's careful work, furthermore, has produced a huge store of case histories which provide many insights regarding the body's remarkable responsiveness to spiritual influence. Its archives contain, conceivably, the world's largest and richest source of evidence for the authenticity and power of religious healing.

Alexis Carrel, for example, a Nobel laureate in medicine and medical director of the Rockefeller Institute, told the story of his first trip to Lourdes in 1903 with painstaking honesty.³ Having gone there as a curious skeptic, he attached himself to a woman with a hopeless case of tubercular peritonitis. While he watched, her sickly features changed so dramatically that he felt he might be suffering an hallucination. Then, before his eyes, a large abdominal tumor which had filled her navel with pus disappeared within a few minutes, and to his astonishment she seemed free of pain. Later that day, when he visited her at a local hospital, he found her sitting up in bed, eyes gleaming and her cheeks full of color. Her abdomen seemed

normal, showing no sign of the hopeless-looking tumor he had seen a few hours before, and it did not hurt when he pressed it. This and other cases convinced him that many of the cures at Lourdes were authentic, whether they were "miracles" or not, and could not be attributed solely to the relief of functional disorders. Like the woman with peritonitis whose tumor had vanished, other cases he witnessed had seemed intractable before they were healed, exhibiting destruction of tissue and malignant growths accompanied by extreme debilitation. As a rationalist and scientist, he said, he was forced by his experience at Lourdes to admit that human beings possessed mysterious capacities which science should explore as thoroughly as it did germs and new surgical procedures.⁴

The following cases illustrate the range of organic disorders which have been healed at Lourdes:

● Francis Pascal, born a normal child, was afflicted with meningitis when he was three. The disease left him completely blind and partly paralyzed. In August, 1938, when he was four, he was instantly cured after two immersions in the springs at Lourdes. Members of the Bureau and other medical experts confirmed that both his blindness and paralysis were organic, not functional. The archbishop of Aix-en-Provence declared the cure to be miraculous on May 31, 1949, and Pascal lived to be a normal adult.¹

● When he was 2 1/2 years old, Gerard Bailie was stricken with bilateral chorioretinitis and double optic atrophy, a disease which is normally incurable, and lost his sight after an operation. In September, 1947, when he was six, his blindness was cured during a visit to Lourdes. Although his affliction was thought to be incurable because his optic nerves had atrophied, he could see objects clearly upon reexamination by the Medical Bureau one year later.

Lourdes Cures Labeled Miraculous ²

Name	Date cured	Age	Diagnosis	State in 1983
Brosse, Miss L.	11/10/30	41	Tuberculosis with multiple fistulae	Alive & well
Fournier, Miss Y.	17/8/45	22	Post-traumatic syndrome of Leriche	Alive & well
Thea, Miss A.	20/5/50	29	Multiple sclerosis (for 6 years)	Alive & well
Ganora, Mr. E.	2/6/50	37	Hodgkin's disease	Died 1957, tractor accident
Fulda, Miss E.	12/8/50	34	Addison's Disease	Alive & well
Schwager, Mr. L.	30/4/52	28	Multiple sclerosis (for 5 years)	Alive & well
Couteault, Mrs. A.	15/5/52	34	Multiple sclerosis (for 3 years)	Alive & well
Nouvel, Miss G.	23/9/54	26	Budd-Chiari syndrome	Died 1970, late complications of Budd-Chiari
Bigot, Miss M.	8/10/53	31	Arachnoiditis of posterior fossa	Alive & well
Aloi, Miss E.	5/6/58	27	Tuberculous hip with multiple fistulae	Alive & well
Tamburini, Miss J.	17/7/59	22	Chronic osteomyelitis of femur with multiple fistulae	Alive & well
Micheli, Mr. V.	1/6/63	23	Sarcoma of pelvis	Alive & well
Perrin, Mr. S.	1/5/70	41	Recurring organic hemiplegia	Alive & well

Cardinal Lienart of Lille, in whose diocese the boy lived, would not declare the cure to be miraculous, however, showing the caution with which the church has come to approach any phenomenon that is deemed to be miraculous.¹

● In 1976, Delizia Cirolli, a child from Sicily, developed a painfully swollen right knee that was diagnosed to be the result of a metastatic neuroblastoma. Her parents refused to have her leg amputated, and her mother took her to Lourdes. But x-rays taken the following month showed no improvement in the girl's condition and the family began to prepare for her funeral. Friends and sympathizers continued to pray to the Virgin of Lourdes, however, and Delizia was regularly given water from the shrine. Then in December, some three months after the condition had appeared, it suddenly vanished. X-rays showed repair of the bone which had metastasized. Four trips to the Medical Bureau in 1977, 1978, 1979, and 1980 showed that the cure was permanent and complete, though various investigators

concluded that the affliction had been a case of Ewing's tumor. The International Medical Committee of Lourdes decided that Ewing's tumor was the correct diagnosis. In describing the case, Committee member St. John Dowling wrote that "spontaneous remission of neuroblastoma has been reported, but very rarely and never after the age of 5. Spontaneous remission of Ewing's tumor has not been recorded."²

In an article published by the *Journal of the Royal Society of Medicine*, Dr. Dowling presented a list of cases deemed by the Church to be miraculous. I include it here to show the severity of afflictions which have been cured at Lourdes, and the long duration of their remission. (See the box above.)

Impressive as such cures at Lourdes have been, they are no more dramatic than those produced by religious healers in other cultures. Though it is impossible to estimate their number with much confidence, we know they occur all over the world. Among the stone-age people of

Siberia, the Sufis of the Middle East, the tribes of Polynesia, the Hopis and Navajo of the American Southwest, the Umbanda and Espiritista cults in Brazil, the practitioners of Haitian Voodoo, the Australian aborigines, and the Kalahari bushmen, healing rituals enjoy enough success to maintain religious belief and cultural solidarity. Their success leads us to ask: What is the continuum of belief, ritual, and symbolic process which stimulates the healing system?

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Michael Murphy is chairman and co-founder of Esalen Institute.



Photos by Samuel Matthews

The Future of the Body: Michael Murphy Comments

Keith Thompson: The book you're working on now is called *The Future of the Body*. What is its theme?

Michael Murphy: The theme is the body's stunning transformability, and the amazing effects that supernormal bodily functioning can have.

Thompson: How did you get interested in such a study?

Murphy: There hasn't been, to my knowledge, a systematic comparative study of physical function that accompanies expanded consciousness. There have been several important studies of altered states, religious consciousness—Marguerita Laski's *Ecstasy*, James' *Varieties of Religious Experience*, Maslow's studies of peak experience, to name a few. The blind spot in these studies, or so it seems to me, is a lack of attention to what's happening with the body while consciousness is changing. When there's a change in consciousness, there's always a change of some kind in the body, and that is my concern.

Thompson: The nonchalance toward the body's participation isn't new, is it?

Murphy: No, it's not new at all. In the great contemplative traditions, enlightenment or liberation is always conceived in spiritual, not in material terms. The aim is to get out of the body when you achieve *moksha* or liberation. Many of them stress ending the cycle of physical incarnations, or as one Buddhist sect puts it, never to have another birthday. There are profound reasons for this, of course. The body dies, while that part of us which we know as eternal will not pass away. Spiritual traditions naturally gravitate back toward the Source, the Ground of Being, as the first aim of spiritual life. As far as I'm concerned that will always be the first aim of self-knowledge.

But, at the same time, we are engaged in this stupendous adventure of our evolutionary universe, and this fact was simply not known during the time the great religions were conceived. Evolutionary thinking is a very recent development.

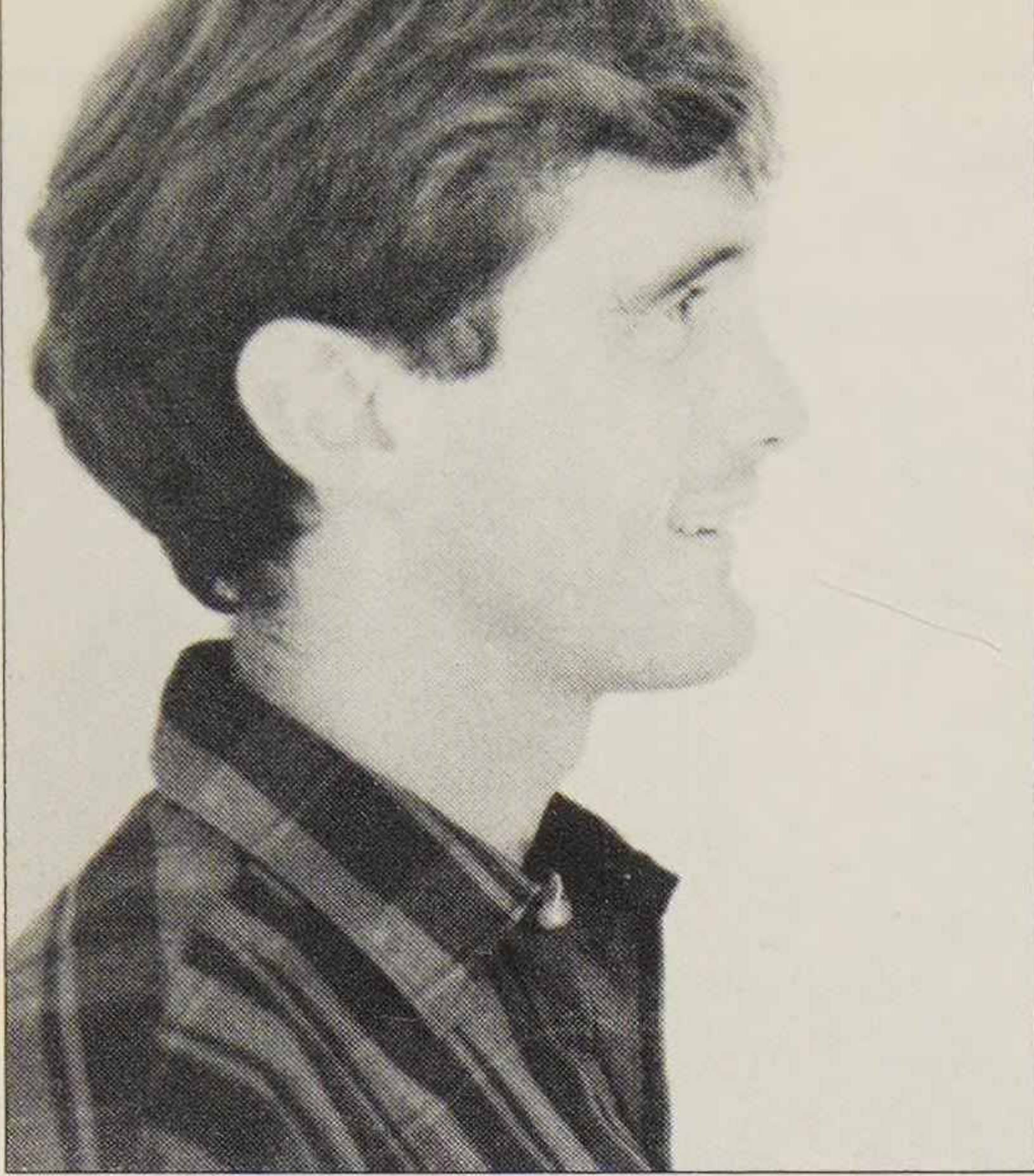
Thompson: It wasn't all that long ago—the seventeenth century, I believe—that Archbishop Usher pronounced definitively that our universe was created in 4004 BC.

Murphy: Yes, and just a few hundred years later we've learned that the universe is actually somewhere between 13 and 20 billion years old. So, in a very real sense, we're still learning to think in evolutionary terms.

The Hindus, for example, believe in *samsara*, the wheel of death and rebirth. The world is regarded as the product of *maya*, illusion, and the goal of spiritual practice is to see through this illusion and return to the divine Source, in part by transcending the body. Without an evolutionary framework, these religious assumptions seem to make sense. They get directly at the dichotomy we feel between the eternal as we know it in contemplation, and the passing nature of the human body and the physical world. It's no wonder that, given the tension of this dichotomy, contemplatives are drawn to the spiritual source first.

Thompson: So, the premise of your research is that the body participates in the "adventure of spirit" in a way that's not generally appreciated?

Murphy: That's one of the premises. The co-evolution of form and conscious-



*“What you’re proposing
is a revisioning of the role
of the body in
relation to spiritual development?”*

ness, mind and body, the inside and the outside of the universe, is what I’m trying to understand, for it seems to me that the body’s development is not finished yet.

Thompson: When I looked through your manuscript, I sensed that in your research procedure, you pay a lot of attention to the *particulars* of bodily change. It reminded me of Darwin’s procedure as he sailed through the Galapagos Islands and noticed, “Hmmm, the finches on *this* island seem different from the finches on *that* island. What shall we make of this?”

Murphy: Yes, I feel a real kinship with Darwin’s methods. I like to think of the research as a kind of natural history. The Transformation Project Archive is full of scientific studies and anecdotal material from many fields of experience: contemplative life, the study of multiple personality, biofeedback and hypnosis, shamanism, sport, spiritual healing. Instead of collecting birds and butterflies the way the old natural historians did, we’re collecting specimens of supernormal (or extra-normal) behavior and consciousness, and the bodily changes that accompany them. By collecting these diverse phenomena, we may perhaps find the patterns by which supernormal functioning is mediated and supported.

Thompson: You’ve written quite a lot about Catholic saints. How did you find your way into that?

Murphy: I was surprised when I first started to discover the wealth of anecdote regarding the physical phenomena of Christian sanctity. The Catholic Church has put a tremendous premium on exactitude, on knocking down superstitious sto-

ries or pious fraud. When the Church makes someone a saint, it wants to make sure that he or she really *is* a saint. Canonization procedures are run, in large part, like a vast law trial, where depositions are taken and evidence put forth. Persons who give evidence are under oath, and if they lie, that’s a sin. Also, by lasting so long, the Church has developed a real connoisseurship that gives it an ability to knock down fraudulent claims. Finally, since around 1800 the Church has been very sensitive to modern science and modern scholarship, and has incorporated those methods into its own inquiries.

Thompson: What sorts of Christian phenomena are so extraordinary that they merit this kind of judicial evaluation?

Murphy: I’ve been studying the twenty or so major “charisms”, the extraordinary phenomena, either mental or physical, that may accompany a life of prayer, meditation, or religious passion. These are not considered normal in spiritual development, and they’re not in themselves evidence of sanctity or morality or spiritual insight. Stigmata, for example, are bruises, welts, or bleeding wounds on the hands, feet, and side which correspond to the places where Christ was nailed to the cross and stabbed by a Roman soldier. There are well-documented reports that these marks have appeared on the bodies of at least sixty people since the death of St. Francis of Assisi in 1226. Hundreds more examples are less well-documented, though impressive. In the book I go into detail on the processes and standards through which these reports have been judged.

Stigmata aren’t the only transforma-

tive effects that a deeply focused consciousness can have upon the body. Complete abstinence from food and drink for long periods (inedia), the odor of sanctity, extraordinary heat (or *incendium amoris*, caused by passionate love of God), luminous phenomena, the absence of rigidity and decay in cadavers—all these have been frequently ascribed to saints and mystics of the Roman Church. The fact that similar phenomena have been attributed to the adepts of other traditions suggests that mystical realization is accompanied by both universal and culture-specific kinds of physical change. Because they so closely resemble the exceptional physical attributes developed with other traditions, and because they appear so frequently in dissimilar places without being sought, these events seem to show that human beings universally possess supernormal capacities which begin to function once certain conditions of body and mind are established, whether their recipient anticipates them or not.

The regularity and spontaneity with which such powers are released by transformative disciplines in every culture makes it conceivable that all of us harbor the same latent supernature.

Thompson: There’s a surreal, even grotesque, aspect of some of the phenomena you’re studying. What are their implications for useful, beneficial transformations?

Murphy: I think that these kinds of phenomena, which are odd and even grotesque in some cases, only become significant in the context of the evolutionary worldview I mentioned earlier. I remain convinced that as a species—and as per-

sons—we either grow or die. If we deny the actuality of these uncharted powers, they either stagnate within us or erupt painfully and perversely, as in certain psychosomatic afflictions, or get expressed in curious ways like the religious stigmata.

This entire study is predicated on the possibility that as individuals get a glimpse of these possibilities, which can appear both beautiful and terrifying, they would begin to undergo serious transformative disciplines and help guide a process of physical and spiritual development that is pressing to be born in us. One has to mount a significant effort to achieve these high-level functioning in such a way that they are health-giving, life-enhancing, and not mere curiosities or pathologies.

Thompson: Given that you find many religious philosophies inadequate, in that they are grounded in a static, non-evolutionary worldview, what you're proposing, and what your research points to, is a revisioning of the role of the body, and of physicality itself, in relation to spiritual development?

Murphy: Yes. The spiritual traditions, as I said, tend to view the world either as illusory or static, or as a way-station to some disembodied Higher Truth, whether it be *nirvana* or *moksha* or union with God. The evolutionary insight—the view that this universe is still unfolding, developing, emerging—combined with the wisdom of the Perennial Philosophy, gives us a key to this treasure-trove of physical phenomena. When these two domains are brought together, the value of physical phenomena

is increased automatically. When we focus upon the *co*-evolution of form and consciousness, the body side of the equation is no longer seen to be inferior. In most mystical traditions, extraordinary physical phenomena are regarded as powers which stand in the way of liberation, or as a kind of phantasmagoria unrelated to the heart of spiritual practice. So, yes, I'm interested in revisioning that kind of thinking.

Lewis Thomas has recently called evolution mankind's greatest story, simply for the number of fields it's able to bring together: physics, astronomy, biology, and cultural studies. But it's generally conceived in material terms—genetic engineering, for example, or the cyborg scenario, in which we gradually become one extended prosthetic device. Do you remember that scene in Huxley's *After Many a Summer Dies the Swan* where the old couple whose lives have been extended by eating carp are still alive? The awful irony and tragedy lay in the fact that these two wizened, horrible old things live in their same old shrunken consciousness.

The aspects of "enlightened consciousness"—grace and bliss, delight of being, heartfulness, quality, empathy—are essential, if extending the physical is to be considered worthwhile. Integral transformation would join the celebrational aspects of the universe with its agonies and sufferings. It's a way of conceiving the universe as a kind of improvisational, joyous, though dangerous, happening back to God. Or, as the vast celebration of the multiplicity, the illumined multiplicity of the Divine as it returns to its primal consciousness.

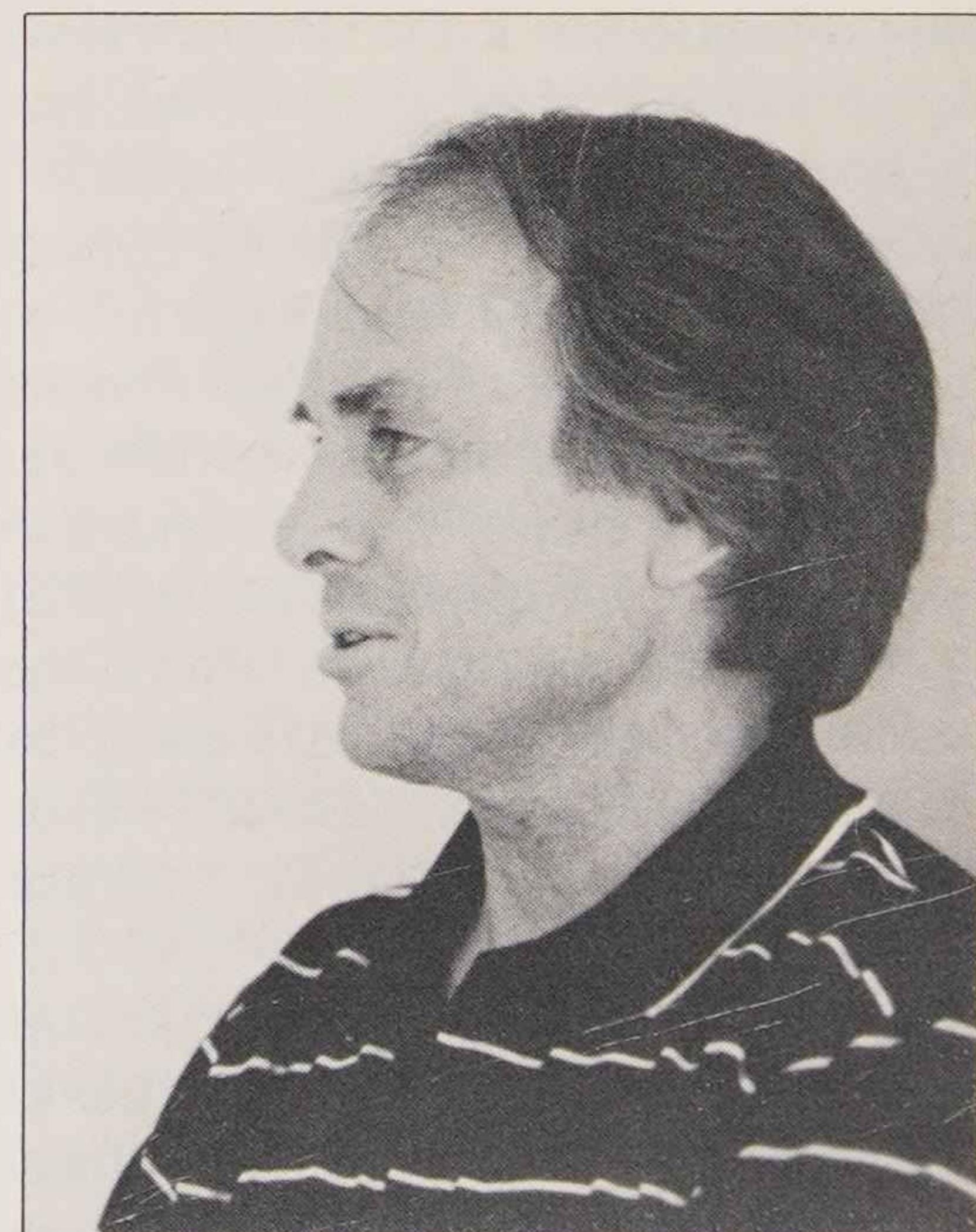
Thompson: Let me close by asking you how you imagine the future when it comes to the social body—the body politic.

Murphy: Well, the Indian Scriptures invariably end with celebration of *Ananda*, the Delight that rules the world. This outcome of so many sacred teachings would become manifest in the transformed body, I believe. Yet bodies of this kind will require a moral and spiritual transformation to broaden our nobler emotions, our sympathy for others, our courage, our sense of unity with the world at large. Otherwise, supernatural capacities might be used destructively. Our joys would have to be linked with the well-being of others. Their sufferings would be ours. Ultimately, perhaps the developing strength and pleasure of a transformed body would be a resource for everyone. Its beauty and joy might be contagious. We all glimpse this already in the bodies of dancers, in the movements of great athletes, in the faces of lovers and saints. We are fatally attracted by it. A developing beauty of the human form might quicken our efforts to explore these possibilities. That's my hope.

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Freelance writer Keith Thompson is a Research Associate of Esalen Institute.

Publications on this subject, planned for the Esalen/Noetics series include *Contemporary Meditation Research*; *The Physical and Psychological Benefits of Exercise*; *Bodily Transformations of Catholic Saints and Religious Contemplatives*; and *Imagery—An Overview of the Field*. The first is available in December.



"The regularity with which powers are released by transformative disciplines in every culture makes it conceivable that all of us harbor the same latent supernature."

Another Look at the Modern Dilemma

—A Review Essay—

by Willis Harman

The Chalice and the Blade: Our History, Our Future, by Riane Eisler. Harper and Row, 1987; \$16.95

Many have undertaken to analyze for us how humanity has reached its present impasse, wherein we have ever-increasing technological knowledge and power, and ever-increasing tendency to get into trouble with it. Some would trace our problems back to the scientific and industrial revolutions, which set the Western world, and eventually most of the planet, on the course that led to computers and space travel, nuclear weapons and biotechnology, toxic chemical pollution and progressive extinction of species. Others (particularly historian Lynn White Jr.¹) go back some centuries further, and find the roots of our ecological and related crises in the rise of Christianity with its mandate to the first man and woman (in Genesis 1:28) to “be fruitful and multiply, and fill the earth and *subdue it*; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.”

Riane Eisler, in *The Chalice and the Blade*, finds the origins of modern global problems even earlier, in a great cultural shift that took place in eastern Europe over

five thousand years ago. This was the rise of what she calls a *dominator model* of society following the Indo-European immigrations that poured over the societies of Europe and the Middle East beginning around 4000 BCE. This structuring of society that came to characterize the Western world was responsible for its success in coming to dominate the planet; it also is largely responsible for the potentially lethal dilemmas that now face humankind. In this interpretation of our past, it follows that only another profound cultural shift (which may be taking place) can provide the solution to our global problems.

Eisler explains the fundamental questions that drove her to this study: “Why do we hunt and persecute each other? Why is our world so full of man’s infamous inhumanity to man—and to woman? How can human beings be so brutal to their own kind? What is it that chronically tilts us toward cruelty rather than kindness, toward war rather than peace, toward destruction rather than actualization?”

One important aspect of any society,



Two Women and a Child from Mycenae.

but particularly our own, is technology. Thus although the word itself does not appear in the index, in a way Eisler’s book is very much about the technologies we devise and the ways we use them.

Technology—Hero or Villain?

There can be little doubt that our use of technology and our future are tightly intertwined. Technology is hero or villain, depending on how you look at it. But of course that isn’t the real issue. Humankind has reached the point where one can hardly imagine any technological goal that we could not accomplish, if we chose to devote the necessary resources and time. The question is: What is worth doing? And there modern society has been extraordinarily confused.

A measure of our confusion is that we continue to try to solve the problems that have been brought about or exacerbated by our use of technology—with more technology! The most egregious example is Star Wars, but there are others: attempting to cure ecological insults brought about by our use of technology through an “environ-

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mental control industry"; dealing with illness caused in part by modern lifestyles through interventions that further impair the natural healing and defensive systems; seeking technological cures for chronic poverty and hunger that are themselves the consequences of industrial society impinging on other cultures.

In another writing,² Eisler adopts a somewhat broader than usual definition of technology: Technology is a dynamic process of using tools, resources, bodies and minds to achieve human-defined goals. Focusing on *ends* rather than means, there are four basic categories of technology:

1. *Technology of production.* This includes farming, weaving, manufacturing, construction, and other ways in which tasks are carried out to sustain and enhance human life.

2. *Technology of reproduction.* This includes birthing procedures, birth control techniques, replacement of bodily parts (for example with prosthetics, artificial organs, organ transplants), in vitro fertilization, etc.

3. *Technology of actualization.* These include social technologies such as public education, democratic political processes, art forms, actualization workshops, etc., as well as personal technologies like meditation for spiritual growth, biofeedback training for self-healing, and so on.

4. *Technology of destruction.* This is technology aimed at destroying and dominating. These range from the techniques of individual combat to vast systems for delivering nuclear warheads.

Simply classifying in this way makes it clear that it is the human choices of life-destroying versus life-enhancing technologies that constitute the problem. But that leads to the next question: What determines these choices?

Most of us do not feel that we are making life-destroying choices. (We may feel that someone else is, and thus we feel

forced into a national policy like "nuclear deterrence".) We are part of a social matrix that results in the choices being made, so the question becomes relevant: What kind of social organization would give priority to technologies of production, reproduction, and actualization?

The Hidden Side of History

Riane Eisler mainly takes a historical and archaeological approach, although there is some reference to anthropological findings. Because history has been written, and archaeology has been carried out, in a society that until very recently has placed women in an inferior position and glorified masculine types of achievement such as victory in war, the story of our origins has been biased. Only with the rise of feminist scholarship have we begun to realize that there is a "her-story" as well as "his-story".

It appears that, contrary to popular impression, the earliest artifacts were not technologies of destruction. The first artifacts, developed long before large game was hunted and warfare began, were technologies of production: containers for carrying, storing, and sharing food; devices for carrying babies; technics for softening food for infants to eat. As one looks from proto-history to prehistory, the most striking thing about the Paleolithic era is the enormous emphasis on technologies of actualization, including cave paintings, figurines, and other artistic renderings of the life-giving powers of the universe.

The agrarian revolution of Neolithic times does not seem to have been primarily characterized by warfare, slavery, and the subjugation of women, as some earlier scholars had indicated. The most recent archaeological findings reveal Neolithic societies in Europe and the Middle East, lasting for many thousands of years, with standards of living higher than those of some of the poorer nations of the modern

world. "We see here not only the domestication of plants and animals to produce the surpluses to ensure a sustained food supply. We also find sophisticated technologies of production, such as advanced stone and metal toolmaking, great strides in the making of clothing, pottery, rugs, and jewelry, and highly developed construction technologies, including even town planning. Above all, what we find is an emphasis on technologies of actualization, evidenced by a rich, and highly revealing, artistic tradition." There is a remarkable lack, in this Neolithic art, of images of armed warriors, scenes of battles, slaves in chains, and similar scenes characteristic of later art. There is a general lack of fortifications in the Neolithic remains. And while they used knives, axes and spears for hunting and farming, there is no indication that they were used routinely for war. The social organization seems to have been basically egalitarian; differences in status and wealth were not marked. Women were not subordinate to men; "there were . . . women priestesses, women craftspeople, and . . . the supreme deity was conceptualized as female rather than male." The primary principle of social organization seems to have been *linking* by mutual trust and caring, rather than ranking and dominating based on force.

This original direction in development appears to have been interrupted about 5000 years ago by a pastoral but violent people scholars call Indo-Europeans, who appeared on the scene from the arid steppes of northeastern Asia. Little is yet known about how they developed their form of social organization, in which the primary principle was the use of force for ranking—of men over women, and of strong men over other men.

The Minoan civilization on the island of Crete seems to have been one of the rare places where a social structuring on the

continued on page 13 . . .

Worldview Portrayed by Neolithic Art

One of the most striking things about Neolithic art is what it does *not* depict. For what a people do not depict in their art can tell us as much about them as what they do.

In sharp contrast to later art, a theme notable for its absence from Neolithic art is imagery idealizing armed might, cruelty, and violence-based power. There are here no images of “noble warriors” or scenes of battles. Nor are there any signs of “heroic conquerors” dragging captives around in chains or other evidences of slavery.

Also in sharp contrast to the remains of even their earliest and most primitive male-dominant invaders, what is notable in these Neolithic Goddess-worshipping societies is the absence of lavish “chieftain” burials. And in marked contrast to later male-dominant civilizations like that of Egypt, there is here no sign of mighty rulers who take with them into the afterlife less powerful humans sacrificed at their death.

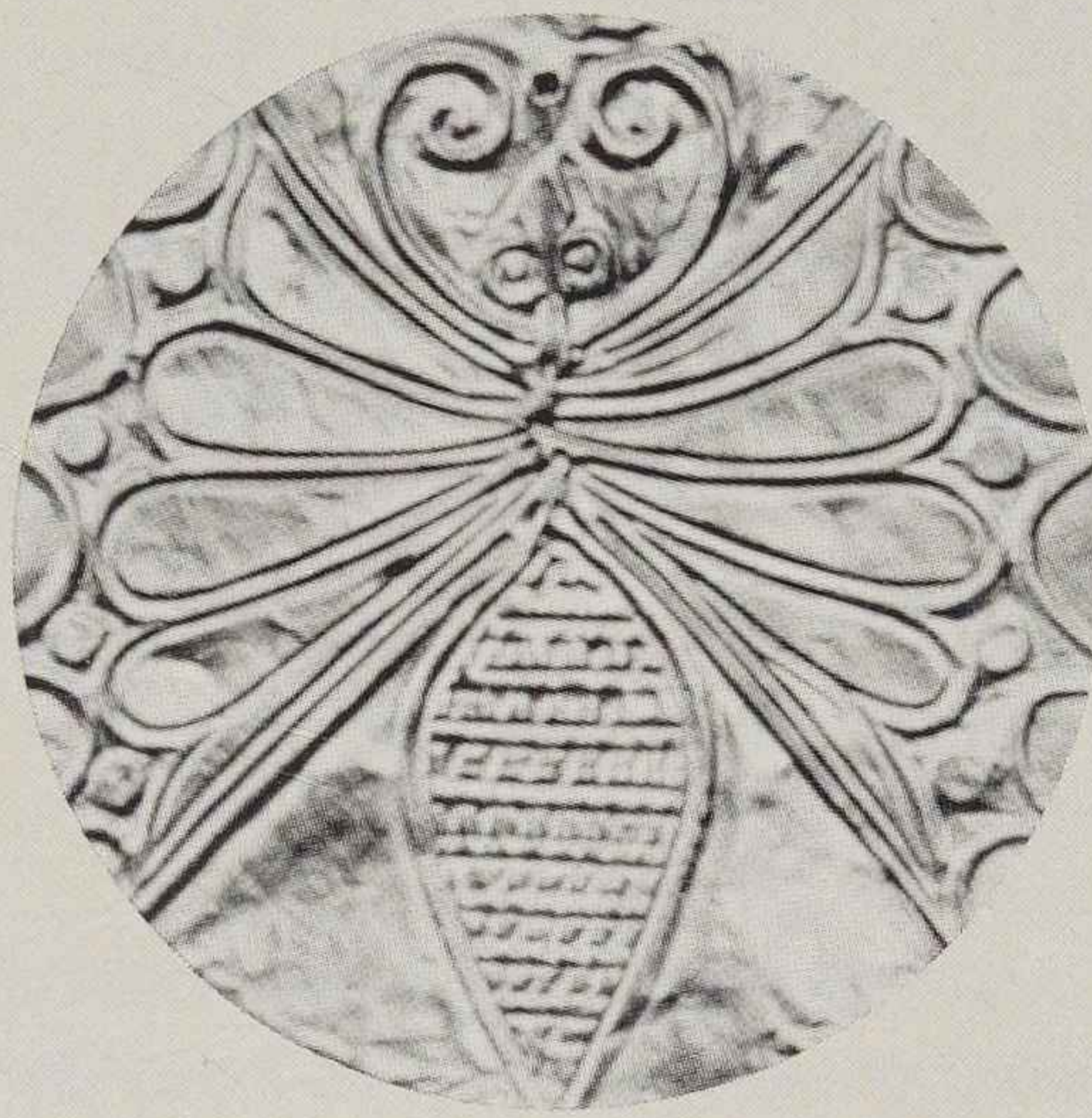
Nor do we here find, again in contrast to later dominator societies, large caches of weapons or any other sign of the intensive application of material technology and natural resources to arms. The inference that this was a much more, and indeed characteristically, peaceful era is further reinforced by another absence: military fortifications. Only gradually do these begin to appear, apparently as a response to pressures from the warlike nomadic bands coming from the fringe areas of the globe. . . .

In Neolithic art, neither the Goddess nor her son-consort carry the emblems we have learned to associate with might—spears, swords, or thunderbolts, the symbols of an earthly sovereign and/or deity who exacts obedience by killing and maiming. Even beyond this, the art of this period is strikingly devoid of the ruler-ruled, master-subject imagery so characteristic of dominator societies.

What we do find everywhere—in shrines and houses, on wall paintings, in the decorative motifs on vases, in sculptures in the round, clay figurines, and bas-reliefs—is a rich array of symbols from nature. Associated with the worship of the Goddess, these attest to awe and wonder at the beauty and mystery of life. . . .

This theme of the unity of all things in nature, as personified by the Goddess, seems to permeate Neolithic art. For here the supreme power governing the universe is a divine Mother who gives her people life, provides them with material and spiritual nurturance, and who even in death can be counted on to take her children back into her cosmic womb.

For instance, in the shrines of Catal Huyuk we find representations of the Goddess both pregnant and giving birth. Often she is accompanied by powerful animals such as leopards and particularly bulls.¹ As a symbol of the unity of all life in nature, in some of her representations



she is herself part human and part animal.² Even in her darker aspects, in what scholars call the chthonic, or earthy, she is still portrayed as part of the natural order. Just as all life is born from her, it also returns to her at death to be once again reborn.

It could be said that what scholars term the chthonic aspect of the Goddess—her portrayal in surrealistic and sometimes grotesque form—represented our forebears’ attempt to deal with the darker aspects of reality by giving our human fears of the shadowy unknown a name and shape. These chthonic images—masks, wall paintings, and statuettes symbolizing death in fantastic and sometimes also humorous forms—would also be designed to impart to the religious initiate a sense of mystical unity with both the dangerous as well as the benign forces governing the world.

Thus, in the same way that life was celebrated in religious imagery and ritual, the destructive processes of nature were also recognized and respected. At the same time that religious rites and ceremonies were designed to give the individual and the community a sense of participation in and control over the life-giving and preserving processes of nature, other rites and ceremonies attempted to keep the more fearful processes at bay.

But with all of this, the many images of the Goddess in her dual aspect of life and death seem to express a view of the world in which the primary purpose of art, and of life, was not to conquer, pillage, and loot but to cultivate the earth and provide the material and spiritual wherewithal for a satisfying life. And on the whole, Neolithic art, and even more so the more developed Minoan art, seems to express a view in which the primary function of the mysterious powers governing the universe is not to exact obedience, punish, and destroy but rather to give.

We know that art, particularly religious or mythical art, reflects not only peoples’ attitudes but also their particular form of culture and social organization. The Goddess-centered art we have been examining, with its striking absence of images of male domination or warfare, seems to have reflected a social order in which women, first as heads of clans and priestesses and later on in other important roles, played a central part, and in which both men and women worked together in equal partnership for the common good. If there was here no glorification of wrathful male deities or rulers carrying thunderbolts or arms, or of great conquerors dragging abject slaves about in chains, it is not unreasonable to infer it was because there were no counterparts for those images in real life.

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- From The Chalice and The Blade, by Riane Eisler; © 1987 by Riane Eisler. Used with permission from Harper and Row, Publishers, Inc., San Francisco.*

basis of partnership rather than domination, linking rather than ranking, survived into historical times. This civilization used remarkably "modern" technologies of production and construction; they had "the first viaducts, the first paved roads, and even the first indoor plumbing in Europe. Here technologies of actualization flourished into a uniquely beautiful and rich art. And here the supreme power was still viewed as the life-sustaining and enhancing power of the 'feminine' Chalice rather than the death-wielding power of the 'masculine' Blade." There was in this society, according to one authority, "a love of peace, a horror of tyranny, and a respect for the law".

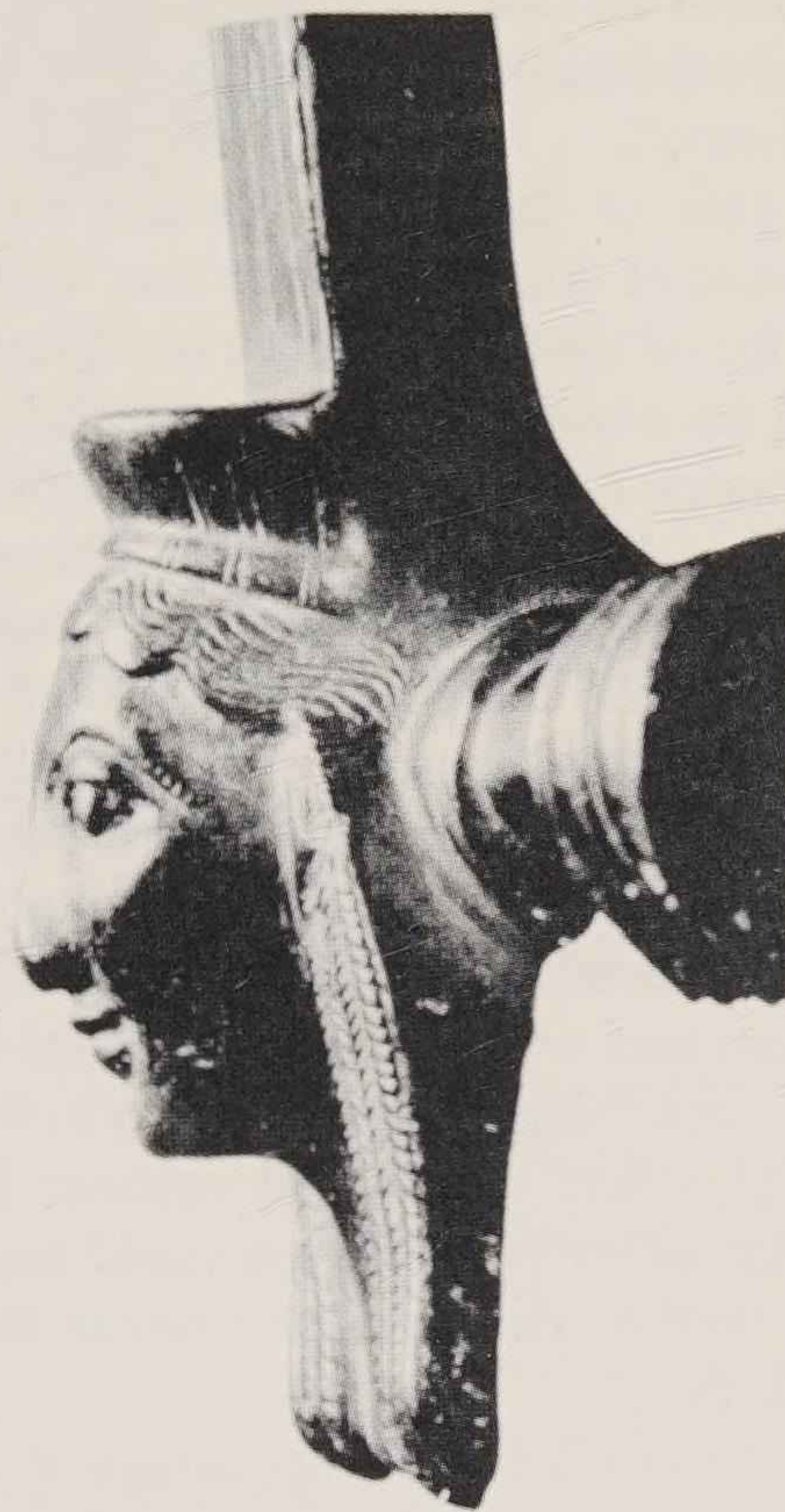
The example of Minoan Crete, says Eisler, illustrates a fundamental principle—that the way a society structures "the most fundamental of all human relations—that between the male and female halves of humanity—profoundly affects the totality of a social system, including its technological direction. . . . A social system in which the larger and stronger male half of humanity dominates the female half—and to maintain this dominance is systematically taught to equate masculinity with conquest and aggression—will in its social priorities emphasize technologies of destruction." Contrariwise, in a social system where male-female diversity is *not* equated with inferiority or superiority, "feminine" values such as caring, compassion, empathy, sensitivity, and gentleness can operationally be given social priority. In these societies based on a *partnership model*, life-enhancing technologies can have precedence.

Looked at in this way, we see that our potentially lethal global problems—the possibility of nuclear holocaust; the global arms race; widespread systemic poverty; and dangerous interferences with the Earth's life-support systems—are *not solvable* under a social system based on domination, "for they are the direct consequences of a dominator model of society at our level of technological development."

The Deeper Significance of Feminism

This line of reasoning casts the feminist movement in a very different light. It is not primarily another movement for

civil rights, for equal opportunities and equal pay for equal work; nor even primarily a movement for raising feminine "consciousness". It is the most fundamental of all the social movements, underlying the peace and ecological movements, hunger projects, and civil rights movements—because it is a movement away from the hierarchical, aggressive, dominator kind of social organization which is associated with all of our most serious problems, and a movement toward a caring, partnership organization that can give us a better chance to have a viable global future.



Two forms of power are defined by Riane Eisler—*actualization power*, emphasized in partnership society, and *domination power*, prepotent in dominator society. The solution to our problems lies, she claims, in substituting the former for the latter.

No doubt there will be scholarly challenges to Eisler's thesis as regards some details. Yet overall it would seem to have considerable face validity. As she says, the real issue is that "in our high technology age, a dominator society is fundamen-

tally maladaptive, threatening not only our species but all life forms on this planet. For how can the population explosion be arrested as long as women are denied access to birth control technologies, as long as they themselves continue to be viewed primarily as technologies for reproduction? How can environmental pollution and degradation be arrested as long as men continue to identify with the 'manly' conquest of nature rather than the 'women's work' of environmental house-keeping? Most critically, how can we survive in a world still ruled by the Blade at a time when we have the ultimate technologies for ending all life."

The Transformative Power of Communication

If we are transforming from a dominator to a partnership model (or *must* so transform), the change cannot be brought about by violence. This cannot be the classical revolution of the history books, for technologies of destruction can only replace one dominator system with another. It must be, fundamentally, a *transformation of human consciousness*.

Thus a central theme of the book is the transformative power of communication. The imposition of a dominator system on previously peaceful societies was accomplished not only by the sword, but also by the pen. The imposition and maintenance of a dominator society would have been impossible in the long run without a reprogramming of the human mind to view men's use of force or the threat of force to dominate or destroy as "divinely ordained", "natural", and above all, "manly".

"The priests (who were often also the scribes) of antiquity served the ruling castes. It was their job to use the media of communication to manufacture and disseminate a dominator worldview. Backed up by armed might, these men exercised complete and monolithic control over all media. Deviations from the officially sanctioned world view were punishable by death through torture—and presumably even after death and for all eternity by vengeful gods. Thus the [basic images] of domination were implanted in the deepest recesses of our collective unconscious, as hallowed and immutable truths. . . .

"The old pyramidal universe—where a male god (and his earthly representa-

*If we are transforming to a partnership model,
the change cannot be brought about by violence.
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of human consciousness.*

tives, the kings and high priests of old) rules over all men, who in turn rule over women, children, and the rest of nature—was challenged in bits and pieces by progressive modern ideologies such as republicanism, socialism, and feminism.” Only recently have the outlines of the replacement partnership model begun to be clear.

The mass media still largely reinforce the old in-group versus out-group dichotomies, justifying violence and inhumanity. But not only do the mass media have well-demonstrated mind-enslaving capabilities. They also have potentiality as instruments of transformation, “as technologies to free our minds, to re-awaken our consciousness, to help us regain our empathy—our sense of connection with other humans and nature. . . . At a time when one more war could be our last, these modern mass media provide the technological capacity to exponentially accelerate the major transformation in human consciousness that can take us from a dominator to a partnership mentality.”

The Promise of Partnership Society

Clarification of these two basic models of social relationships—dominator and partnership—transcends and is more useful than conventional polarities between political left and right, capitalism and communism, religion and secularism, and even masculinism and feminism. All the modern, post-Enlightenment movements for social justice, be they religious or secular, as well as the more recent feminist, peace, and ecology movements, are parts of an underlying thrust for the transformation of a dominator to a partnership system.

Eisler’s vision: “Gradually, as the female half of humanity and the values and goals that in andocracy are labeled feminine are fully integrated into the guidance mechanisms of society, a politically and economically healthy and balanced sys-

tem will emerge. Then . . . our species will begin to experience the full potential of its evolution.” Eisler does not say, in this book, how such a transition can be expected to occur although she does promise to address the issue in two further books. She does, however, conclude with a brief sketch of the changes she envisions as we resume humanity’s “interrupted cultural evolution”.

One of the most dramatic consequences of this shift will be that we will live free of the fear of nuclear annihilation. And as women gain more equality, so birthrates may balance better with resources, thus overcoming the Malthusian “necessity” for war, famine and disease. As we trade the conquest of nature for environmental housekeeping, we will rid our planet of energy shortages, natural resources depletion, and chemical pollution. “Indeed,” says Eisler, “as billions of dollars and work hours are rechanneled from technologies of destruction to technologies that sustain and enhance life, human poverty and hunger could gradually become memories of a brutal andocratic past.”

There will be more openness and trust in woman-man relations, in our families and our communities. With a social structure based on linking instead of ranking, institutions will become less hierarchical, allowing for diversity and flexibility; and many new institutions will be more global “as the consciousness of our linking with one another and our environment firmly takes hold”. The economic order will be drastically reshaped, more in line with our partnership-model prehistory, and caring for others will be a most highly valued and rewarded activity.

Eisler also foresees the development of a new mythology based on the transformative mysteries of the Chalice. This mythology will not, however, represent a psychic reversion to the past. “On the

contrary, by intertwining our ancient heritage of gylanic [linking female and male] myths and symbols with modern ideas, it will move us forward toward a world that will be much more rational, in the true sense of the word: a world animated and guided by the consciousness that both ecologically and socially we are inextricably linked with one another and our environment.”

The Prospect

How realistic is this vision? Riane Eisler assures us that the process of unraveling and reweaving the fabric of our mythical tapestry into a new pattern, in which such “masculine” virtues as “the conquest of nature” are no longer idealized, is well underway. Part of this change is unconscious; part is occurring through various social movements that appear on the surface to be about more specific social and political issues. If she is correct, we may expect to see the feminist movement expand to become a broad movement involving both sexes and directed toward the basic transformation of human consciousness.

It is a most attractive prospect, if we can believe it; and Eisler’s analysis helps make it more believable by highlighting an alternative view of human nature and human evolution. Perhaps Eisler is right, and after the bloody historical detour through dominator society, both women and men will at last find out what being human can mean.

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Willis W. Harman is President of the Institute of Noetic Sciences.



David L. Smith

The Sun and the Shadow: A New Classic on Lucid Dreaming —A Review Essay—

by Charles T. Tart,
Institute Fellow

The Sun and the Shadow: My Experiment with Lucid Dreaming,
by Kenneth Kelzer, Virginia Beach, Virginia: ARE Press, June
1987, \$9.95.

Compared to our waking life, our nighttime dreams are a passive sort of existence. Things usually just happen to us, whether we will them to or not. Modern sleep research has shown that we each spend about 20% of our sleep time in the dream state, or about 7% of our existence. Why not take an active approach to dreaming, and have a richer nighttime life?

A very few people already do this: They experience lucid dreaming, a special type of dream in which there is a pronounced shift in the way their consciousness functions, such that they know while dreaming that they are dreaming, feel much more in control of their mental functioning, and are able to exercise much more control over subsequent dream events while they are lucid.

The term "lucid dream" was created by a Dutch physician, Frederick van Eeden, writing about his own experiences in the *Proceedings of the Society for Psychical Research* in 1913. Few people had heard of lucid dreams (although almost everyone has probably had a lucid dream at least once, without knowing the term for it) until I reprinted van Eeden's description in my book *Altered States of Consciousness* in 1969.

The impressive qualities of lucid dreaming are the knowledge that one is dreaming, the feeling of clarity of perception and thought, the ability to call upon relevant knowledge to deal with the dream world, and the greatly enhanced ability to voluntarily control the subsequent dream action. Instead of dreams just happening to you, you begin to actively direct parts of your dream existence.

Kenneth Kelzer is a psychotherapist who decided to induce and explore lucid dreams as part of a personal and spiritual growth program in 1980. The book is an account of the dreams that followed and his struggle to integrate their insights into everyday life. The lessons he learned will be helpful to all of us, even if we don't have lucid dreams.

Because Kelzer writes very clearly, I will mainly quote selected passages, not only to give you the flavor of the book but because they are useful to our growth even in isolation.

Commenting on one of his early and powerful lucid dreams, Kelzer notes

There is a kind of magic in many lucid dreams. This one had the potential to become a nightmare, but in the moment that I became lucid I experienced total inner transformation. All my fear vanished in an instant, and inside of myself I felt full of courage. Complete clarity of vision, in this dream, yielded instant transformation. This became one of the important principles that I learned from this particular lucid

Lucid Dreaming Demonstrated

Stephen LaBerge's pioneering work, reported in highly readable form in *Lucid Dreaming*, establishes that lucid dreaming usually occurs in a stage 1 rapid eye movement (REM) state, the same physiological state that ordinary dreaming occurs in. This rules out the old idea that it was really impossible to be lucid in a dream, that people who thought they had lucid dreams were just vividly imagining things during brief awakenings in the night. His work also shows that lucid dreaming includes a clear recall and understanding of waking state experimental objectives and a capacity for volitional control of dream action in the laboratory, in accordance with these objectives.

To illustrate: A subject capable of having lucid dreams agrees that during such dreams he will signal to the experimenter (who is monitoring his brainwaves, eye movements, and other physiological measures), that he is now lucid in his dream. This is not an easy task, given the general paralysis of almost all muscles in stage 1 sleep! How can it be done?

With rapid eye movements being measured, as well as electromyogram (tiny electrical signals that control muscular movement) potentials on both wrists, the dreamer, on becoming lucid, sends a prearranged signal. He rolls his (dream) eyes vertically three times. Pure vertical rapid eye movements are rare in stage 1 REM sleep, so are not likely to occur by chance.

dream. To see *fully* is to have courage. To see *fully* is to have no fear. But, as is so evident when we examine our world, we human beings seldom see anything fully in our normal state of consciousness. More often than not, as the apostle Paul wrote: 'We see now through a glass, darkly, but then we shall see face to face.'

Why do we have lucid dreams?

One of the purposes of lucid dreaming, I am now convinced, is to give people the experience, however fleeting or temporary, of spiritual and psychological mastery. These tastes of mastery and moments of transformation spur us on to continue the inward journey.

As a psychotherapist, Kelzer is very sensitive to underlying psychological dynamics in both lucid dreaming and ordinary life. Commenting on a lucid dream in which he met a primitive man riding on a huge beast like an African wildebeest, he notes

Eventually, after some reflection, I realized that this lucid dream taught me a lot about fear. Fear is perhaps the most primitive human emotion of all, and we all have a great deal of it inside ourselves. We all need to learn how to confront the objects and sources of our fear in order to thrive and prosper in this world. I realized, too, that the dream was bearing a personal message, telling me that I still have a lot of powerful fears inside myself, which at times threaten to overwhelm my conscious mind. I did not associate the wildebeest to any particular fear, but more to fear in general. The dream reminded me of Franklin D. Roosevelt's statement, 'The only thing we have to fear is fear itself.' Now I am wondering if this lucid dream was suggesting that I might surrender one step further and give up the fear of fear. To be unafraid of fear itself implies a willingness to face all of my fears, whatever they are, regardless of what plateaus I may already have reached in my personal growth.

I find this quite interesting as there was a point in my own growth where I realized that the fear of being afraid was indeed a bigger fear of mine than any fear of any thing in particular.

Not likely is not impossible, though, so to be completely sure the lucidity signal really signifies lucidity, the dreamer then sends his initials in Morse code by selectively tensing the (dream) muscles of his (dream) hands. If the right hand is to signify dots and the left dashes, for example, LaBerge (a proficient lucid dreamer himself) would send his initials, S. L., by tensing his right hand thrice (S = dot, dot, dot in Morse), pausing a couple of seconds, and then tensing his right hand once, his left hand once, and his right hand twice (L = dot, dash, dot, dot in Morse). Electrodes on the dreamer's (physical) wrists pick up the electrical signals produced and record them on the polygraph. These kinds of signals of lucidity have now been sent many times in the laboratory. Keith Hearne, a British psychologist working totally independently of LaBerge, conducted similar successful experiments at about the same time.

Controlled lucidity is a major breakthrough for the scientific study of dreams. Understanding the nature of dreams has always been a slow process because of their uncontrollable, spontaneous nature. They seldom manifest the particular thing you would like to observe more closely when you are ready to study it. LaBerge describes many experiments about the nature of dreams that are much more feasible with a dreamer who is an active co-experimenter. C. T.

Kelzer has to struggle with the shadow side of his nature in his quest, a side that seemed to strengthen as his sun side, his spiritual side grew. In such struggles it is all too easy to identify with the good and totally reject the bad, a strategy which is quite costly in terms of psychological growth.

Spiritual work, when it is true and genuine, is expansive of awareness and not 'displace-ive' of awareness. It leads us to see and appreciate the whole of our humanity, and does not lead us to reflect upon our higher natures only. While we need to dwell upon our higher nature in order to grow in a positive direction, we must not do it by rejecting our dark and primitive side. A whole person, then, is someone who has walked with God *and* wrestled with the devil.

How are lucid dreams different? Shouldn't they be analyzed like other dreams for hidden messages? As a psychotherapist Kelzer was expert in such analyses and knew their value, yet:

I had no desire to analyze this lucid dream or do therapeutic work with it in any way. It had a sense of completion that is common to many lucid dreams, almost as if the dream were a work of art in itself. This sense of completeness and wholeness is one of the features that clearly distinguishes many lucid dreams from ordinary dreams. Most schools of psychotherapy generally follow or build upon Freud's basic idea that the dream expresses the content of the unconscious mind and usually presents the dreamer with some kind of problem to be solved. Many lucid dreams, however, are simply nonproblematic; they seem to emerge from a different category or realm of the mind. As such, they serve many important purposes other than assisting the dreamer toward the confrontation of personality problems, although such confrontations can certainly be one of their functions. . . . Speaking as a psychotherapist, I do not see any inherent contradictions between the works of Freud, Jung, Perls and other psychotherapists and the ramifications of lucid dreaming. I do believe, however,

Linking Mental and Physical Worlds

Taken together, our work at Stanford has amassed strong laboratory evidence indicating that what happens in the inner world of dreams—and lucid dreams especially—can produce physical effects on the dreamer's brain no less real than those produced by corresponding events happening in the external world. The results of [our] experiments show that the impact of certain dream behaviors on brain and body can be fully equivalent to the impact produced by corresponding actual behaviors. This fits hand in glove with the fact that dreams are normally *experienced* by the dreamer as fully real, and indeed it is not unusual for dreams (especially when lucid) to seem more real than physical reality itself. This is far from the view prevalent in Western societies, seeing dreams as “airy nothings” devoid of meaning and reality. On the contrary, what we do in dreams (or leave undone) can at times affect us as profoundly as what we do (or do not do) in our waking lives.

I believe our findings have a number of exciting implications. The most exciting would seem to be in the areas of philosophy, psychophysiology, and neuroscience. All three of these disciplines have had a longstanding interest in the relationship between the mental and physical worlds. This, the “mind-body problem”, is really many problems—or else a single prob-

lem that takes many forms. Among these forms is whether and how the subjective (mental) events of the dream and the objective (physical) events occurring in the dreamer's brain are connected. At this point, I can only give partial answer: Our research indicates that dream events are closely paralleled by brain events. The extent to which this model of psychophysiological parallelism will provide an accurate picture of reality remains a goal for future research. But in whatever details it may ultimately prove to be wrong, our model at this point seems empirically to rule out dualistic conceptions of dreaming, such as the traditional favorite of the soul (or “astral body”) flying about the dream world completely free from brain and body.

Our results also should encourage psychologists, neuroscientists, and psychophysicists attempting to discover correspondences between objectively measured physiology and behavior, and subjective experience. We are just at the beginning of mapping out the relationships between the human mind and brain, but our Stanford work may have brought us one small step closer to the day when we will discover the structure of our minds within the microcosm of the human brain.

Stephen LaBerge
Lucid Dreaming

that one of the biggest challenges that psychotherapists may have in approaching the lucid dream will be to step aside from their traditional problem-oriented point of view in order to appreciate that the lucid dream is more likely to serve the dreamer on another level. A lucid dream is more likely to be instructional about the nature of consciousness *per se* than to reveal the dreamer's particular disturbances of consciousness. It is more likely to depict something about the general evolution of consciousness than reveal something about the individual dreamer's particular ‘arrestment of development’. As its first function, the lucid dream is more likely to reveal the dreamer's inner joy and creativity, while addressing his or her emotional problems as a secondary function. In short, the lucid dream is more likely to be the bearer of good news than the bearer of bad news. . . .

Simply to appreciate and enjoy the lucid dream and to bask in its light, its vivid images and colors may well be the primary creative response that we can make to most lucid dreams. Not that lucid dreams do not offer us messages or insight. They often do, though these messages are often of a much higher or much more subtle nature than the meanings of ordinary dreams. The lucid dream is a subtle teacher. As my experiment progressed I began to grasp this concept in many ways.

As a well-socialized male, Kelzer brought very masculine attitudes of control to his study of his lucid dreams, but the dreams had something to teach him about this.

My own self-analysis was that for the present my approach to lucid dreaming still contained too much of my *willing* it to happen and not yet enough of my *allowing* it to happen. The ‘masculine’ attitudes of will power, order, goal setting, intentionality and control are very strong in my personality and always have been since childhood. Correspondingly, the ‘feminine’ attitudes of trust, patience, relaxation about goals and allowing it all to happen have been my less-developed traits. These feminine mental qualities, I realized, would need to be increased within myself if the fullest psychic cross-fertilization was to take place.

We all experience occasional (perhaps too occasional) “peak experiences”, moments of joy and clarity when we transcend our ordinary false personality and experience the higher aspects of our Self. Some of Kelzer's lucid dreams were peak experiences. Because they are rare and fade, though, what good are they?

These peak experiences, however, even if they are fleeting and fragile, are no small contribution to the spiritual evolution of the person who receives them. Without them life could easily become drab and dull. In reflecting on my experiment, I have come to see that the ultimate purpose of the peak experience is to provide us with a taste of ecstasy now, because a taste is better than nothing at all and because a taste is all that most of us can bear *now*. In addition, we need to understand that if we were to receive the full impact of ecstasy without adequate preparation, most of us would probably die, because we are simply not yet strong enough internally to bear the fullness of the Light.

I am particularly impressed with Kelzer's clear intent to deal with the whole of reality, not just the parts of it that we label “good”. Pursuing the good is fine, but very tricky. We easily distort our perception in the pursuit of security and pleasure and thus sow the seeds of useless suffering.

Following an especially powerful lucid dream that he titled *The Arrival of the Serpent Power*, Kelzer noted

The Arrival of the Serpent Power and the life context out of which it came has often led me to reflect upon one of Carl Jung's statements: ‘I would much rather be a whole person than a good person.’ His message was a criticism of the commonly misunderstood and truncated version of moral goodness that is so often held up for emulation in civilized society. Goodness has often been equated with qualities such as niceness, patience, kindness and tolerance, with the expectation that these qualities should be displayed at all times and in all circumstances. Such ‘goodness’ unfortunately often makes people into victims because it may unconsciously invite more aggressive in-

dividuals to abuse, attack or exploit. In this setting, I was relearning once again that a whole person is someone who feels his own anger and aggression on those appropriate occasions when someone else is exploiting him and can speak out or take effective action to prevent the attack from proceeding any further. In essence, it is not always appropriate nor spiritual to turn the other cheek. For me, Jung's basic idea is so vital because it implies that there is a dark side to love which actually turns out to be a positive human force in the long run. It throws out absolute behavioral guidelines for people to follow and encourages us to commit to the wholeness of the psyche as our overall guiding principle.

There is a danger in any spiritual path, the danger of identifying with a specialness, of Me! as superior to the common hordes. Kelzer notes

Ego inflation was the major two-edged sword that came out of my experiment with lucid dreaming. It was capable of cutting both ways: positively or negatively, creatively or destructively. . . . To inflate or not inflate, that is *not* the question. How to respond to one's inflation, if it occurs, is the question. For as Rilke wrote to the young poet, we must give birth to our images, and we must give birth no matter what happens as a byproduct in our psychological development. To be human is to love, create and give birth in the real world and to wrestle courageously, if need be, with any negative byproducts that may emerge from one's choice to be fully alive.

I think you can see why I find this book excellent and fascinating. It will clearly be one of the classics of lucid dream literature.

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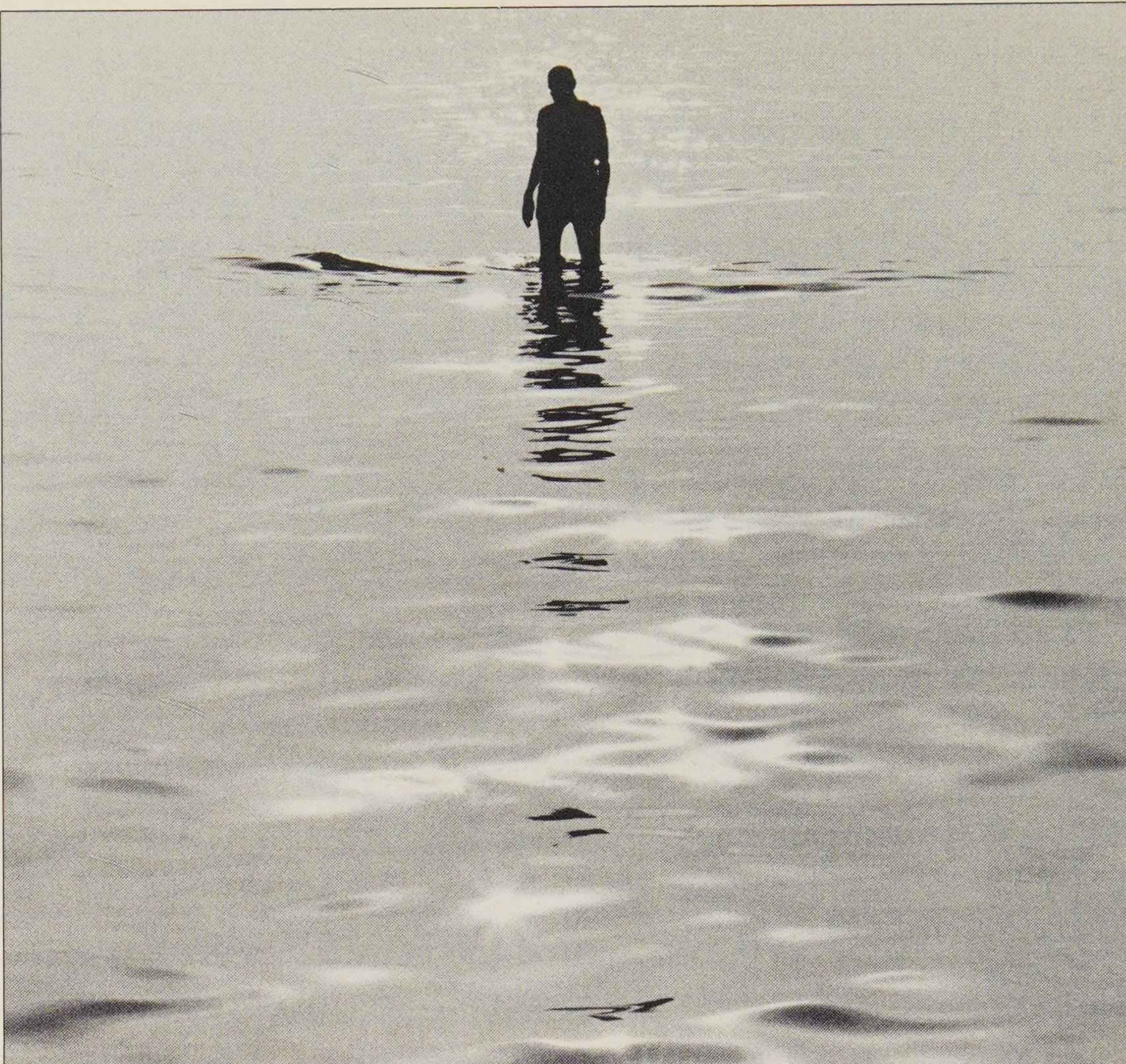
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David L. Smith

In the lucid dream the light comes to the dreamer in the midst of our time of darkness, during sleep, the nocturnal phase of our daily cycle. As my experiment progressed and as I reflected extensively on this simple fact, I began to develop a deeper respect for darkness and a deeper appreciation for its untold, fertile potential. The further I go with my experiment, the more I feel the special value of darkness in all its forms: the vast limitless void of outer space that beckons the astronomer and astronaut, the internal psychological darkness of the shadow within each person, the darkness of the winter months that calls for quietude and slowing down the pace of life, the darkness of the ocean floor that is another gateway to a world unknown, and the impending darkness of evening that signals the end of each day. In all its forms darkness can deeply nourish the human spirit, if we allow it to do so. So often I now look forward to the night and to my time of sleep, perhaps to dream lucidly, perhaps to receive another special gift from the realms of inner darkness. The unconscious mind is our mother in countless ways. Out of its inner darkness, the light is born.

—Kenneth Kelzer

A West German psychologist, Paul Tholey, has developed a number of techniques for inducing lucid dreaming. His Reflection Technique is basically a matter of getting in the habit of frequently asking yourself during the day, "Am I awake or dreaming?" The repeated examination of the qualities of ongoing experience can lead to a sensitivity to your state of consciousness and a carrying over of the habit of questioning into the dream states. Eventually the answer will be "Yes!", and lucidity will result.

In another technique of Tholey's, the

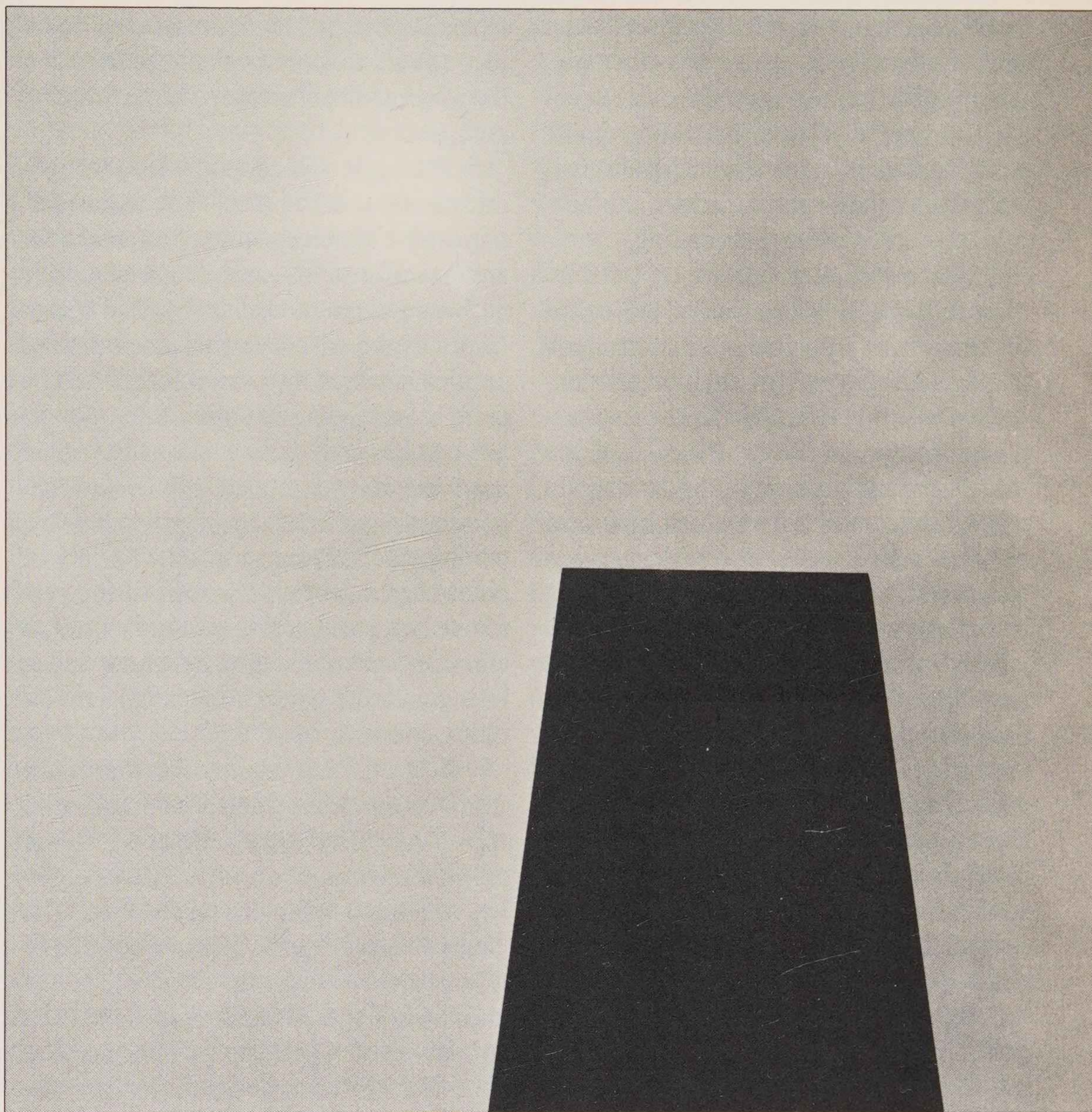
Intention Technique, you resolve you will become aware that you are dreaming when you find yourself in a particular dream situation. The technique don Juan recommended to Carlos Castaneda, and which Kelzer uses successfully, of trying to look at his hands during his dreams is an excellent example of this.

The content of lucid dreams can be affected by wishing or autosuggestion during waking. The great attraction of lucid dreaming, though, is the possibilities for immediate control of their content while one is lucidly dreaming. C. T.

Downward Causation: The Consciousness Revolution in Science

by Roger Sperry

Editor's note: The following excerpt is taken from "Structure and Significance of the Consciousness Revolution", Roger Sperry's paper in The Journal of Mind and Behavior (Winter 1987, Volume 8, Number 1). Dr. Sperry is one of the world's most acclaimed neuroscientists, and in 1981 won a Nobel Prize in Physiology or Medicine for his work differentiating the functioning of the right and left halves of the brain. Sperry has also been concerned, for well over 20 years, with the philosophical dimensions of mind/brain research. His theory of "emergent interactionism", in which inner conscious awareness is explicitly recognized as a cause of behavior and a factor in evolution, represents a major challenge to reductionistic, physicalistic, philosophies which deny subjectivity a meaningful role in brain processes—or life. In this excerpt he explores the differences between these two views.



David L. Smith

We have in science today two major conflicting doctrines of causal control, two conflicting scientific descriptions of the kinds of forces that govern ourselves and the world. The classic view reduces everything to physics and chemistry and ultimately to quantum mechanics or some even more elemental, unifying theory. Everything is supposed to be governed from below upward following the course of evolution. Science, in this traditional micro-determinist view, presents a value-devoid, strictly physically driven cosmos and conscious self, governed by the

elemental forces of physics and chemistry, ultimately by quantum mechanics. By this long dominant physicalist-behaviorist paradigm there is no real freedom, dignity, purpose or intentionality. These are only aspects or epiphenomena of mind which in no way influence the course of physical events in the real world or in the brain.

According to the new mentalist view, by contrast, things are controlled not only from below upward by atomic and molecular action but also from above downward by mental, social, political and other macro properties. Primacy is given to the higher level controls rather than to the

lowest. The higher, emergent, molar or macro phenomena and their properties throughout nature supersede the less evolved controls of the components. The concepts of physical reality and the kind of cosmology upheld by science in the two conflicting views thus differ vastly, particularly with respect to their psychological and humanistic implications. . . .

The concept of downward control and how it works in emergent interaction is critical for the present claim that fundamental concepts of causation are at stake. The fact that downward, top-down, emergent, molar or macro causation continues

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to be contested, especially in the exact sciences, but also in philosophy, indicates that it either has not been adequately explained or that it fails to hold up under examination. Because it lies at the heart of our present thesis some further explanation is in order before proceeding.

Downward determinism. . . [was introduced in 1964] in terms of biological hierarchies. . . . Spelled out more fully in the following year (in relation to consciousness and evolution—with direct implications for freewill, values, and the worldview of science), this emergent control concept was presented as a new solution to the mind-body problem. It was also described by Popper as a new view of evolution and a different view of the world. Perceived to lead to a compromise or middle way philosophic outlook that is neither dualism nor traditional materialism, it denied that the mental can exist apart from the functioning brain. At the same time it accepted the objective causal reality of mental states at their own level as subjectively experienced. The downward control aspect, later dubbed "downward causation", has also been referred to as "emergent causation", "holistic control" and "molar determinism" in opposition to the traditional microdeterminism of materialist doctrine.

Because the concept is critical for the idea of a more valid scientific paradigm and continues to be disputed, some further explanation is attempted in the following passage using simpler examples which will serve also to emphasize the universality of the principle. As such an illustration, consider a molecule in an airplane leaving Los Angeles for New York. Our molecule, say in the water tank or anywhere in the structure, may be jostled or held by its neighbors—but, these lower level actions are relatively trivial compared to the movement across the country. If one is plotting the space-time trajectory of the given molecule, those features governed

from above by the higher properties of the plane as a whole make those governed at the lower molecular level insignificant by comparison.

The same principle applies throughout nature at all levels. The atoms and molecules of our biosphere, for example, are moved around, not so much by atomic and molecular forces as by the higher forces of the varied organisms and other entities in which they are embedded. The atomic, molecular and other micro forces are continuously active but at the same time they are enveloped, submerged, superseded, "hailed and pushed around" by, or "supervened" by an infinite variety of other higher molar properties of the systems and entities in which the micro elements are embedded—without interfering with the physico-chemical activity of lower levels.

Reductionists claim that the entire flight of the plane from Los Angeles to New York can be accounted for in terms of the collective atomic and molecular activity, eventually quantum mechanics. The "macro" answer asserts there is no way that quantum mechanics can describe the multinedged spatial features of the plane's structure which govern the flight as much as the molecular components per se. Similarly, the timing factors, as in its various motors, could not be accounted for by quantum mechanics. The plane will have radio, computer, and TV circuits. If one were to disconnect two elements in these circuits and reconnect them in reversed manner, the whole system would fail. The particular connections of the circuit plan cannot be determined from quantum mechanics; the laws for circuit design come from a higher level. In general, subatomic physics fails to give a full account of these higher organizational features.

The same applies to the circuit plan and function of the nervous system. If one were to plot the firing pattern for a given

cortical neuron involved in cognitive function, the bursts of activity would, of course, be correlated with the local excitatory and inhibitory inputs to the given cell. At the same time, the timing of the neuron's firing, as well as that of its local input, would also be found to be determined predominantly by the train of mental events that happens to be in process. A change in mental programming brings corresponding major changes in the given neuron's activity pattern.

Most everyone agrees that neuronal events determine the cognitive events, but it is also true that the mental events, once they emerge, interact with other mental events at their own level and in the process also exert downward control to determine concomitantly the firing patterns of their neuronal constituents. The controls work both ways, upward and downward as well as sequentially. In "emergent interaction" or "emergent determinism" the mental events control neuronal activity at the same time that they are determined by them. The downward control view contends that the higher emergent forces and properties are more than the collective effect of the lower because critical novel space-time factors are not included in the laws governing the components.

It may be objected that examples of interlevel causation in which both levels are physical are no help to explain the mind-brain relation where one level is mental and thus by definition nonphysical. Our present thesis discounts such objections claiming the pertinent causal principles are the same. Brain processes have many unconscious as well as conscious emergent properties. Just because some emergent properties are subjective does not mean their basic interlevel causal control relationships are therefore different. Identity theory disposes of this issue semantically by calling the subjective properties physical properties.

In probing further the micro versus

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macro dispute it may help, at the risk of being repetitive, to focus on a simple familiar example, such as the downward control exerted by a molecule of water over its hydrogen and oxygen atoms. It usually is agreed that the laws defining the behavior of the atoms, particularly their course through time and space, become quite different after the atoms become joined together as a molecule. Although the atomic properties in the main are preserved, the atoms, once joined, are obliged to follow a new space-time course determined predominantly by the higher properties of the water molecule as a whole.

Many reductionists concur but argue that the new properties of the molecule are themselves determined entirely by those of the atoms and in fact can be completely predicted from the atomic properties. The macrodeterminist answer holds that predictability is not the issue here. Being able to predict the formation of novel emergent properties does not make the new properties go away or make them any less real, less novel or less important and powerful as causal determinants. The macrodeterminist can accept that the entire course of evolution is predictable, *in principle*, starting from subatomic properties, but this does not change the argument that evolution *does* occur, that new properties and control forces *do* emerge and that when they do, they exert downward control over their constituents which, as a result, are thereafter governed by new scientific laws.

The old reductionist claim that the properties of the molecule are nothing but the collective effects of the constituent atomic properties usually becomes qualified, these days, by the addition of some phrase to include the new organizational or spatio-temporal relations. With very simple entities, like the water molecule, the spacing and timing may be closely determined by the atomic properties themselves—but this does not hold for more

complex entities, as in our airplane, for example, where the coherent configuration may be a product of anything from chaos to an inventor's insight. Again, however, to be able to describe how the formation of the new properties was determined does not provide scientific descriptions or laws for the new entities. The point is that the new emergent entity with its new spatio-temporal arrangement and resultant new properties, once it has come into existence, deserves to be treated and recognized in its own form for what it is—not solely as a collection of its elements in a special new space-time arrangement.

For an accurate, complete, scientific description of nature, the *spacing* and *timing* of all the multinested elements at all levels must be included. Science has laws for the behavior of the material, mass-energy elements but in general does not have laws for the complex multilevel space-time components. The space-time, or pattern factors, however, are *automatically incorporated* in the laws for the macrophenomena, as, for example, in classical mechanics. Properties manifest at subatomic levels tend to be bound up and controlled by properties at higher levels. If an uncertainty principle is operating at sub-atomic levels this does not necessarily imply that this uncertainty operates in the whole natural order at large, or characterizes the essence of reality.

It is frequently objected that if science has been wrong on this issue, how could it have been so eminently successful? It needs to be remembered in this connection that microdeterminism in itself is very valid. It is not contradicted by the acceptance of emergentism and downward control; neither is the value of the analytic, reductive methodology of science. It is only the *exclusion* of macrodeterminism that is claimed to be in error, and science has not excluded macrodeterminism in *practice*, only in its philosophy, theory and outlook. The microbiologist, for example,

consistently relies on macrodeterminism and downward control in the treatment of molecular activity. It is in treating organisms, not molecules, that biology usually becomes reductionistic. The laws of classical mechanics are heavily macrodeterminist. In general, science has always depended on macrodeterminist principles though this has usually remained tacit and unrecognized. . . .

Many . . . examples could be cited from a continuing series of ideologic, philosophic, and even theological contributions that have appeared since the sixties in which a new world outlook is upheld rejecting both traditional mechanistic approaches on the one hand and supernatural explanations on the other in favor of a midway holistic or emergentist position. The logical underpinnings of these varied proposals appear, in final analysis, to rest on a common basis similar to that of the new mentalist outlook in psychology. They all boil down to an acceptance, not of many or several, but of one major paradigm change, involving a core principle of causal determinism with wide application to rational explanation in general, not only in science but also in the humanities.

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Further Comments on “... an Extended Science”

by Willis Harman

Circulation of the article “Toward an Extended Science”, which appeared in the last issue of the Review (Summer 1987), has brought a good deal of feedback, as might be imagined. Much of it has been positive; some skeptical. Because the issues are so vitally important to the mission of the Institute, I would like to make an informal restatement to clarify the terms of the debate. Then to add interest, let’s look at a particularly puzzling (or outrageous) set of claimed research findings.

The Restructuring Challenge in Science

Science has always had problems in dealing with those aspects of human experience related to conscious awareness; some of the controversies (for example free will versus determinism) have been going on for many generations. Now, in recent years, there appears the possibility of a dramatic resolution of these problems, coming from the confluence of three ideas, each of which is an important breakthrough in its own right.

The first of these ideas is that the sciences have a natural hierarchical relationship: For example, science dealing with living organisms involves concepts not found necessary in the physical sciences, and science dealing with consciousness as a causal factor involves concepts beyond those used to describe nonsentient organisms. The second idea is that there are two kinds of “causes” of behavior—one in terms of more elemental factors such as external stimulus and genetic predisposition; the other in terms of “higher” factors such as conscious intent. The third involves a different approach of science toward the paranormal and the miraculous.

The confluence of these three ideas has brought about a potential reconciliation of the science-spirituality tension and of a host of related conflicts. In the end it may amount to a rewriting of the book of science.

It does not seem to be possible to identify just who was the first to bring forth these three ideas, and perhaps it doesn’t matter too much. They have been around for a long time, but not until very

recently has the full impact of their combined implication been appreciated in any widespread way. Two of the three ideas can be closely linked to eminent scientists (in fact, to two Nobel laureates, Sir Karl Popper and Roger Sperry), although both give credit to earlier sources. The third seems to have come more from the grassroots level, as part of a broadly based cultural change.

1. A hierarchy of sciences.

The first of these three ideas is that scientific knowledge is hierarchically ordered. Popper, in his book (with Sir John Eccles) *The Self and Its Brain*,¹ discusses the hierarchical arrangement of sciences using the following table:

- (4) Ecology/Sociology
- (3) Biology
- (2) Chemistry
- (1) Physics

Chemistry is, in a sense, an “enrichment” of physics; it is partly though not completely reducible to physics. Similarly, biology is not completely reducible to physics and chemistry, nor is ecology or sociology reducible to the lower three. Each level contains concepts that are *emergent* in that system level and not pertinent to the levels below: Chemical compounds have emergent properties one would not surmise from the physical structure (for example, the *saltiness* of sodium chloride, or the *wetness* of water); living organisms have emergent properties not predictable from their physics and chemistry (for example, tropisms of plants, or instincts of animals); and mind and conscious experience at the fourth level are of a different order still.

Statements made at these different levels tend to be *complementary* in their relationship to one another. For example a description of the process of digestion (biological level) complements the descriptions of the enzyme-food interactions (chemistry level) and of the pumping action of the stomach and intestines (physics level). The evidence that attitudes and stress (psychosociology level) can seriously interfere with the digestive process is not contradicted by the apparent physical determinism of the physics and chemistry levels.

Acceptance of this hierarchical idea implies that the universe is not deterministic. It is not possible, in principle, to predict the state at the level of biology, for example, through knowledge of the state at a lower level, no matter how complete.

2. Upward and downward causation.

Now add to this idea of hierarchy a second—the concept of “downward causation” complementing “upward causation” as for example the role of mental images in affecting behavior and the state of the body. In a recent paper² Roger Sperry subscribes to what he terms a “mentalist” view according to which “things are controlled not only from below upward by atomic and molecular action but also from above downward by mental, social, political, and other macro properties. [Furthermore,] primacy is given to the higher level controls rather than to the lowest.” (See pages 15-17 of this *Review*.)

The combination of these two ideas has been described by Popper as leading to “a new view of evolution and a different

view of the world”, and hailed by Sperry as a “consciousness revolution in science”. But it is not until the third idea is added in that the revolutionary significance becomes fully apparent.

3. *Redefinition of the possible.*

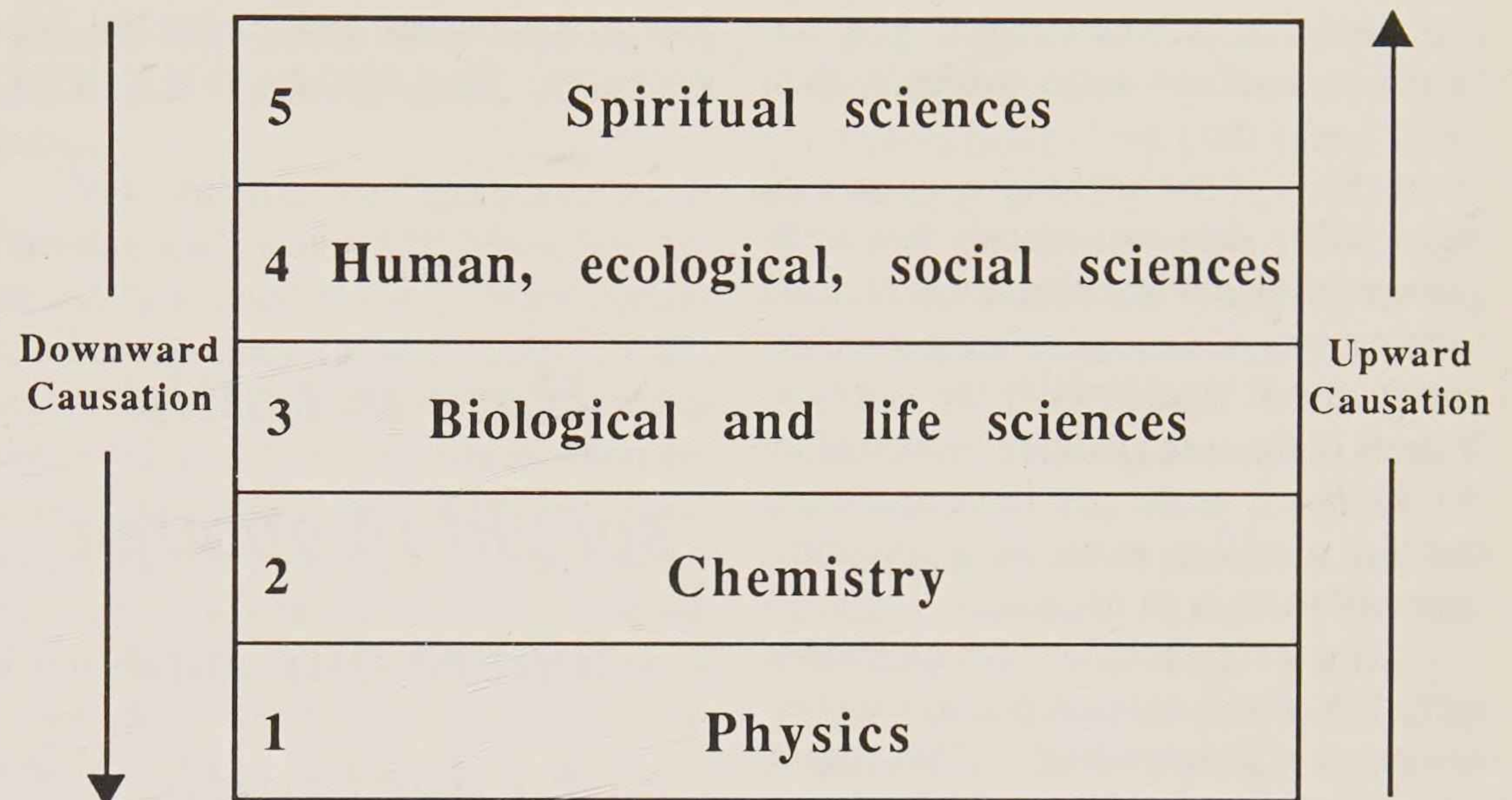
Spreading *accelerando* over the past quarter century has been the realization that somehow science seems to miss important aspects of human experience. Although the quiet rebellion takes some cultish and bizarre forms, the growing interest in such areas as Eastern religious philosophies, yoga and meditation, channeling, near-death experience, imagery approaches to healing and education, paranormal phenomena, etc. has made clear the public’s dissatisfaction with the scientists’ exclusive claim to valid truth-seeking.

There were good reasons, in the historical development of science, for an initial limiting of the scope of the new inquiry to the aspects of reality that are physically measurable, and to explanations that are nonteleological and reductionistic. One of the consequences of that limiting, however, has been that a tremendous amount of effort has gone into defending the barricades against, or explaining away, a host of phenomena that don’t fit within those limits. These outcasts included miraculous healings and psychic phenomena, as well as more ordinary experiences such as volition, intention, conscious awareness, and selective attention.

The reassessment of that situation is an integral part of the “New Age” outlook, although it is not always clearly articulated. It amounts to, simply and brashly, a proposal that science be reformulated. Instead of starting with a limiting bias and having to defend against the anomalous, what if we start with the assumption that *any class of inner experiences that have been reported, or of phenomena that have been observed, down through the ages and across cultures, apparently in some sense exists?* The need then is for a science to accommodate all that exists. (There are a lot of subtleties involved, of course. Whole societies can perceive things that observers from other societies do not, so one has to be cautious about claiming that some class of experiences is universal, even in potential. But set the subtleties aside for the moment.)

The Confluence

These three ideas combine to give us the potential restructuring of science we explored in the *Review* article mentioned in the introduction. Think of a body of scientific findings and concepts hierarchically arranged something like those in the accompanying diagram.



The higher levels involve concepts that are more holistic than, and not reducible to, concepts at lower levels (as, for example, the concept of a living organism at level 3). Descriptions of phenomena at the different levels are *complementary*, not contradictory. (For instance, conscious awareness and volition at level 4 are not contradicted by the seeming determinism of the first two levels.)

Scientific explanations have been largely assumed to be understanding the higher level in terms of the lower level. But as Sperry points out, to reap the full benefits of the scientific mode of inquiry (especially to derive from it value and ethical implications), it will be necessary to give scientific validity to the complementary explanations—of the lower level in terms of the higher level.

Some of the phenomena and experiences reported at levels 4 and 5 have received rather harsh reception by scientists in the past. One class of these come under the heading of spiritual and religious. They include extraordinary healing; visions and voices of what appear to be higher beings; apparent efficacy of prayer; ostensible communication from the dead; apparent “miracles”; and a type of chan-

neling that used to be called “revelation” or “divine inspiration”. These have played a significant role in history, and in the shaping of our social institutions. It may be necessary for science to be less hasty than in the past in insisting that such things couldn’t happen or have no meaning.

Genius, Multiple Selves, and Channeling

With this in mind let us revisit some well-traversed territory. Around the turn of the century there was a great flurry of interest in communication with the dead through “mediums”. Eminent scientific researchers who had made their names in other fields conducted explorations, often employing highly sophisticated means of making sure they were not being fooled. (These included people like William James, Sir Oliver Lodge, Lord Rayleigh, Sir William Crookes, Sir J. J. Thompson, Henri Bergson.) The literature of the time is full of fascinating case histories. Sometimes the messages were simply given to the medium who reported them; entire books were dictated in this way, or scribed by automatic writing. Other times the larynx of the medium became the direct transmitter of the messages. In still other cases the medium’s whole body seemed to be taken over by the discarnate “entity”; physiognomy and voice characteristics would often change dramatically.

Sometimes physical phenomena accompanied the communications (for example, visible extrusions of “ectoplasm”). Good records, including photo-

graphs, were kept. In one extraordinary case (the so-called “cross-correspondences”) fragmentary messages, meaningless by themselves, were received by different mediums in widely separated locations; when brought together they fit like pieces of a jigsaw puzzle to give a single coherent set of messages. (The alleged sender was the deceased F.W.H. Myers, eminent psychic researcher, who explained that he was trying to give his fellow researchers some evidence they could hardly deny.)

In spite of the impressive amount of high quality data and reports that were gathered during this period, there seemed to be no way of conceptualizing the phenomenon that would satisfy the skeptics. Interest in the area gradually waned after World War I, as the psychic researchers and the mainline scientific community appeared to be at an impasse.

Over the last couple of decades widespread interest has developed in the phenomenon of “channeling”. This was a term adopted to avoid the specific connotations of the word “medium”; it also included a wider range of communications than solely those purporting to be from a discarnate, but once embodied, entity. Acceptance of “channeled material” has often been not very discriminating, and explorations of the phenomenon not very scientific. Nonetheless, the recent climate of acceptance has certainly been far more open than for a long time before.

A recent development in research on multiple personalities is tantalizing in this regard. For most people the waking self is usually quite sure of being one mind in one body. The self that dreams knows another world, but is also sure, both in the dream state and when awake, that it is the same “I”. But there are persons—victims of “multiple personality disorder”—who appear to have two or more distinct personalities. (Dr. Jekyll and Mr. Hyde is the classic fictional example.) In actual cases the condition seems to almost always have its roots in severe child abuse, and is typically puzzling and painful for the persons who suffer from it. Current research on this phenomenon is interesting from a number of standpoints, including some methodological puzzles.

In such a person (called a “multiple”), different personalities (which in many cases have no awareness of one another)

alternately control the physical body. Alternate personalities may be quite dissimilar in speech and thought patterns, mood and temperament, voice characteristics, apparent gender, physiognomy, posture and movement patterns, accessible memories, reported age and life history, and other individual and personality characteristics. Different personalities have often mastered different physical abilities, interpersonal skills, and intellectual subject areas. They may be able to speak

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the full spectrum
of subjective
experience?*

different foreign languages. The impression that wholly different personalities are expressing themselves through a single body can be corroborated by correlating these various changes with the personality shifts as subjectively experienced by the psychiatrist or researcher.

The current surge of research interest in this topic has come about partly because of the discovery that in these cases of personality shift, physiological and biochemical changes may be observed as well. These can include brainwave patterns, chemical composition of bodily fluids, immune status, allergies, skin electrical responses, and others. This development leaves little doubt that in some important sense the alternate personality “really exists” as surely as does the usual

personality. Research on multiples could potentially shed new light on a host of questions relating to consciousness.

The study of multiple personalities raises an important methodological question. Most of conventional science seeks reductionistic explanations for phenomena. But “personality”, like “health” and “love”, is a holistic concept. How is truth sought in an area where one has to deal with a holistic situation that includes not only behavior and other measurable dimensions, but also the full spectrum of subjective experience? The most fruitful inquiry appears to involve explorations of these inner experiences, often quite profound and moving, in an atmosphere of mutual trust and rapport—not at all like the cold detachment of the controlled experiment.

Under some conditions alternates may permanently “fuse” into a single personality, or alternate personalities may “leave”. Both of these events can lead to more comfort for the patient, and higher levels of effectiveness; in other words, they may be part of a “cure”.

In the course of therapy one particular alternate may be encountered, which has been termed the “inner self-helper”. This unique personality is typically very cooperative with the therapist, even to the point of giving advice and pointing out mistakes. It seems to never display negative emotions such as hatred, anger, anxiety, fear, depression, etc. It is typically cheerful and loving, with a good sense of humor. This “helper” personality appears to be potentially present in every known case, although it may not appear spontaneously. Unlike the other alternates, who typically report having been “born” during some traumatic period in the early childhood of the body, this particular one is likely to say “I have always been”. Queried about death, it reports that at death the body decays and the other personalities disintegrate, but “I remain”. (It is interesting to compare this recent finding with the following quotation from the *Upanishads* [India, 1000 BCE]: “The *atman*, the Self, is never born and never dies. . . . It is beyond time, unborn, permanent, and eternal. It does not die when the body dies.”)

The phenomenon of multiple personalities seems related to other kinds of dissociative states, some of which are not considered pathological but, rather, highly

*What if we start with the assumption that
any class of phenomena that have been observed,
down through the ages and across cultures,
apparently in some sense exists?*

prized. Of course we all have alternate personalities in a sense; we have each experienced periods when we definitely feel the internalized parent to be in control, or the petulant child. One example is the subjective experience of many creative persons, of some sort of inner genius, such as the poet's muse or Socrates' "daemon", that may present to the person an answer to a question, the solution to a problem, or a musical composition or the image of a work of art.

Sometimes one alternate personality may seem, both to the main personality and to an outside observer, to be knowledgeable and wise and beneficent, far beyond the capabilities and usual character of the host personality. Such an entity may claim to be a spirit guide, for instance. This is not dissimilar from the phenomenon of "channeling". The term channeling is usually used to connote a kind of communication which is external to the individual's "ordinary" conscious-unconscious mind system, and may seem in some respects to be quite superior to the ordinary mind. This "other" source may seem or claim to have been a person once, but no longer alive on this Earth, or a being of some extraterrestrial sort not embodied in the usual physical sense. Other terms have been used for some forms of this phenomenon, at other times or under specific circumstances—these include "inspiration", "creativity", "deep intuition", "mediumship", "religious experience", and "revelation".

Voices from the Beyond?

That brings us to a particular case in point, namely the claimed research findings of George Meek of Franklin, North Carolina. They seem to be so wild and out of the plausibility ballpark that one would be justified in simply dismissing them as obviously fraudulent or erroneous. But as one looks more seriously at the problem with science just summarized and dis-

cussed in the Summer *Review* article, one may wish to suspend judgment for the time being.

Very briefly, the "electronic voice phenomenon" which Mr. Meek has explored is the following. Under certain conditions a tape on an audiotape recorder, set on "Record" but with no signal input of the usual sort, has been found when replayed to contain an intelligible voice recording that purports to be a communication from a person some time deceased. The phenomenon has been repeated many times, with many assortments of witnesses.

More unbelievable still is the next episode. Only this year a group of researchers in Luxembourg were carrying out similar experimentation when they received "instructions" to have a TV camera set up on a tripod and focus on the picture tube of an old TV set. In a manner similar to the "electronic voice phenomenon", the videotape recorded a number of still pictures, each lasting a fraction of a second. Some of these appeared to be photographs of identifiable persons, now dead, typically the way they looked as young adults. Other pictures appeared to be landscapes, which a "spirit guide" explained as "test signals".

One of the earliest pictures, for example, was identified as resembling a West German woman named Hanna Buschbeck as she had looked as a young woman. Ms. Buschbeck had been president of the German EVP (Electronic Voice Phenomenon) Society until her death a few years ago. Another picture of a young man was identified by the "spirit guide" as being Professor Henri Sainte-Claire Deville, a French chemist who died in 1881. Several days later in an electronic voice recording the speaker identified himself as that same Professor Deville, and then proceeded to deliver a learned discourse on certain aspects of time and energy in the cosmos.³

The "electronic voice recording" phenomenon had come to the attention of researchers in the United States and Scandinavia as early as the 1950s. In the case of one of the most impressive kinds of channeling, that of the so-called "direct-voice medium", one could always assume that the medium herself (most were women) was creating the sound, even if unconsciously. But when the voice recording appears on an audiotape with no recording signal, it is more clear that something truly "anomalous" is going on.

So far, the attitude of the scientific community has been essentially that of the notorious committee appointed by the French Academy at the end of the eighteenth century to look into the reported phenomenon of meteorites. They dismissed the evidence that on occasion incandescent stones seem to streak through the sky and fall to the ground. These must be some sort of illusion, they insisted, because "there are no stones in the sky to fall". Similarly, there has been no serious scientific consideration of the electronic voice (and now picture) recording phenomenon because the claims of the researchers seem so patently absurd. Yet in the light of the current reassessment of the possible, it may be important not to slam the door of scientific consideration too quickly or too tightly.

References

1. Karl R. Popper and John C. Eccles, *The Self and Its Brain*. Springer International, 1977.
2. R. W. Sperry, Structure and Significance of the Consciousness Revolution. *The Journal of Mind and Behavior*, Winter 1987, vol. 8, no. 1, pp 37-66.
3. A current progress report on this work can be obtained from Metascience Foundation, P.O. Box 737, Franklin, NC 28734.

Willis Harman is President of the Institute of Noetic Sciences.

Reviews in Brief

Compiled by Nola Lewis

The Ever-Present Origin

by Jean Gebser. Authorized translation by Noel Barstad with Algis Mickunas
Athens, Ohio: Ohio University Press, 1949 and 1953;
English translation 1985; paper edition, 1986;
614 pages; paper, \$29.95

As a schoolboy in Germany, Gebser learned the art of "swimming free" when a jump from the diving board plunged him "into uncertainty". In his own words "It was then that I lost my fear in the face of uncertainty." The experience placed him in possession of the seed expression of his life.

The Ever-Present Origin, Gebser's magnum opus, is a rich testament to the lifelong intellectual labor of this extraordinary thinker. In it, he examines the evidence for the nascence of a new world and a new consciousness, based on insights into humanity's mutations in consciousness from primordial beginnings up to the present.

The English translation is divided into two parts. In Part I, "Foundations of the Aperspectival World", Gebser examines the course of human history and finds clearly discernible worlds which stand out and whose appearance and unfolding bespeak mutation of the consciousness structures which underlie and inform them. He finds evidence that human consciousness has undergone three such previous mutations: from the archaic or primordial basic structure, the magic, the mythical, and the mental (or rational) structures have emerged. Each such transition represents a pivotal juncture of decisive finality for life on Earth and for the humanity subjected to it.

The crisis of our times and its global nature bear witness to the exhaustion of values which characterize the completion of an era. Gebser believes we are at the end of the mental-rational cycle and that we have the possibility of moving forward into what he terms the "arational-integral" world, a world foreshadowed by such thinkers as Sri Aurobindo and Teilhard de Chardin.

In Part II, "Manifestations of the Aperspectival World", Gebser seeks the essential traits of the new age and the new reality. Both rest on two guiding principles whose validity will clarify with time: latency—the demonstrable presence of the future, including everything that is not yet manifest, as well as everything which has again returned to latency; and transparency (diaphaneity)—the form of manifestation of the spiritual. Gebser examines the findings of the natural sciences, the creations of modern art, and the results of the humanities and sciences of the mind and sees changes in every form of contemporary expression consistent with this emergence.

While no brief review can hope to convey the breadth of Gebser's ideas or the scholarly precision with which he examines them, this introduction is intended to inform our readers of this exciting and important book.

The Real and the Imaginary:

A New Approach to Physics

edited by Jean Charon
New York: Paragon House Publishers, 1987;
206 pages; cloth, \$24.95

According to the dictionary, the imaginary only exists in the imagination and only refers to objects which are not real. While reality is easily thought of as an appropriate subject for scientific inquiry, what does the imaginary have to do with science?

This fascinating book, the result of the Thirteenth International ICUS (International Congress on Unity of the Sciences) Conference, describes the emergence of the scientific investigation of imagination within such traditionally "hard" disciplines as physics and biology. In doing so, it enlarges the definition of imagination and questions the limits of objectivity as the fundamental stance of science. We have long known that any "observer" could influence the behavior of a *living* object, like an animal or another human individual; but is this still true when the observer considers the behavior of such apparently "inert" objects as the elementary particles of physics? Are there some properties of mind associated with "pure" matter?

Do we truly live in a "participatory universe", where observer and observed are two faces of the same inseparable reality as theoretical physicist John Wheeler recently declared? This book will provide stimulating reading to anyone who seeks a deeper understanding of this key question in the unification of the physical and the spiritual worlds.

The New Biology: Discovering the Wisdom in Nature

by Robert Augros and George Stanciu
Boston: Shambhala Publications, New Science Library, 1987;
274 pages; cloth, \$22.50

The New Biology presents compelling evidence of cooperation among species and between organisms to refute the Darwinian theory of the survival of the fittest. Theories that portray nature as clumsy, wasteful, and cruel are contrasted with field observations and experiments documenting nature's efficiency, economy, and purposefulness. The paradigm of ruthless competition and the struggle for existence gives way to the gentle contours of cooperation among species and the harmonious co-existence of the organism and its environment.

Any nature lover will relish the flora and fauna stories that grace this book, such as how the kangaroo rat lives without drinking water, how five species of warblers living on the same tree avoid competition, how desert plants beat the heat, and how arctic fish avoid freezing in icy waters. But the authors also guide the reader beyond natural history through the many controversies

that divide biologists today: What is the nature of animal intelligence? What sort of world do they perceive? What is the distinguishing feature of living things? Is there a place for beauty and purpose in the science of life? Does Darwinian natural selection explain all, some, or none of the facts about origins?

In answering these questions, Augros and Stanciu make clear the significance of our century's great discoveries in genetics, ecology, paleontology, and animal behavior. Through a judicious use of concrete examples, arguments, and expert testimony, the authors of this highly readable book unify an incredible range of evidence into a powerful synthesis, illuminating a new-found wisdom of nature that indeed calls for a new biology.

The Tree of Knowledge:

The Biological Roots of Human Understanding

by Humberto R. Maturana and Francisco J. Varela

Boston: Shambhala Publications, New Science Library, 1987; 263 pages; cloth, \$24.95

The science of biology today is witnessing a revolution comparable to the one undergone by physics earlier in the century. At the forefront of this revolution are Professors Maturana and Varela, who present in this book a radical view of the life processes by which human beings attain knowledge of the world around them.

With abundant illustrations and examples, the authors argue that the act of cognition does not simply mirror an objective reality "out there", but instead is an active process, rooted in our biological structure, by which we actually create our world of experience. In supporting this view, they explore topics such as the nature of scientific explanation, the organization of living things, evolution, linguistics, and the emergence of self-awareness.

Their view of cognition, the authors believe, has important social and ethical implications, for the only world that we humans can have is one that we create together through the atmosphere and actions of our coexistence.

Written for a general audience as well as for scientists and scholars, *The Tree of Knowledge* invites readers to let go of their preconceptions and gain fresh insights into what it means to be human.

Opening to Inner Light

by Ralph Metzner

Los Angeles: Jeremy P. Tarcher, 1986;

224 pages; paperback, \$10.95 (\$9.30 to members).

It is said that the Buddha recognized only one miracle—the transformation of human consciousness. *Opening to Inner Light* describes the processes of individual evolutionary transformation. The descriptions and conceptual tools described in it are likely to prove useful to anyone who seeks a deeper understanding of such transitions.

Drawing upon Eastern and Western mysticism, comparative mythology, literature and poetry, the book sets forth the dozen or so metaphors which occur over and over in all major cultures and sacred traditions throughout the world. These metaphors form the common language of the transformative process—from dream to awakening, from captivity to liberation, from fragmentation to wholeness; they are the language of symbol which we recognize from dreams, poetry, art and mysticism.

Rich in scholarship, in symbolic imagery, and the personal experience of the author's colleagues, clients, and students, this book is for all those who have undergone any deep personal change and will especially benefit those who are presently engaged in such transformation.

Good news: *The Notebooks of Paul Brunton, Volume 1*, (reviewed by Charles Tart in the *Summer Review*) is priced \$12.50 and not \$22.50.

Book Ordering Information

Members may order *Consciousness and Survival*, *Paths to Peace* and the *Peace Packet* at discounted prices through the Institute. Please add \$1.50 postage and handling per book (one to three books), and \$1.00 per book (four or more books), or \$2.50 for the *Peace Packet* and 6% tax for Californians.

See your Spring 1987 *Noetic Sciences Catalog* for a complete annotated listing of books (discounted 15%). Selections include: Health and Healing, Exceptional Abilities, Inner Development and Spiritual Traditions, Emerging Paradigms, Global Mind Change, and Conscious and Unconscious Mental Processes. The *Catalog* also lists special papers and reprints, music and lecture tapes and selected back issues of Noetic Sciences publications. Use the Order Form in the *Catalog* or call (415) 331-5650 between 9-5 pm (PST) to ask for a *Catalog* or charge by phone. VISA and M/C accepted.

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An Interdisciplinary Inquiry Into the
Possibility of Life Beyond
Biological Death

**Consciousness and Survival:
An Interdisciplinary Inquiry into the Possibility of
Life Beyond Biological Death**

(Cat. #BE-030) Bishop John S. Spong, editor. Institute of Noetic Sciences,
1987. 224 pages.

Proceedings of the "Consciousness and Survival" symposium sponsored by Bishop John S. Spong and IONS Board members Carole Angermeir Taylor and Senator Claiborne Pell. Included are the presentations of philosopher Antony Flew; physicist Paul Davies; biologist Rupert Sheldrake; Tibetan scholar Sogyal Rinpoche; psychology professor Kenneth Ring; psychologist Jacqueline Damgaard; parapsychologist Charles Tart; psychiatrist Stanislav Grof; biochemist Candace Pert; theologian John Hick; and social scientist Willis Harman, President of IONS.

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Edited by

John S. Spong, Bishop, Diocese of Newark

With an introduction by

Claiborne Pell, United States Senator

Paths to Peace: An Exploration of the Feasibility of Sustainable Peace.

Richard Smoke with Willis Harman. Westview Press, 1987. 111 pages.

Institute authors Harman and Smoke describe conventional and unconventional kinds of peace efforts, from government policies (including deterrence) to grassroots efforts (such as nonviolence) so we can understand ways to eliminate the threat of war and feel empowered to take action.

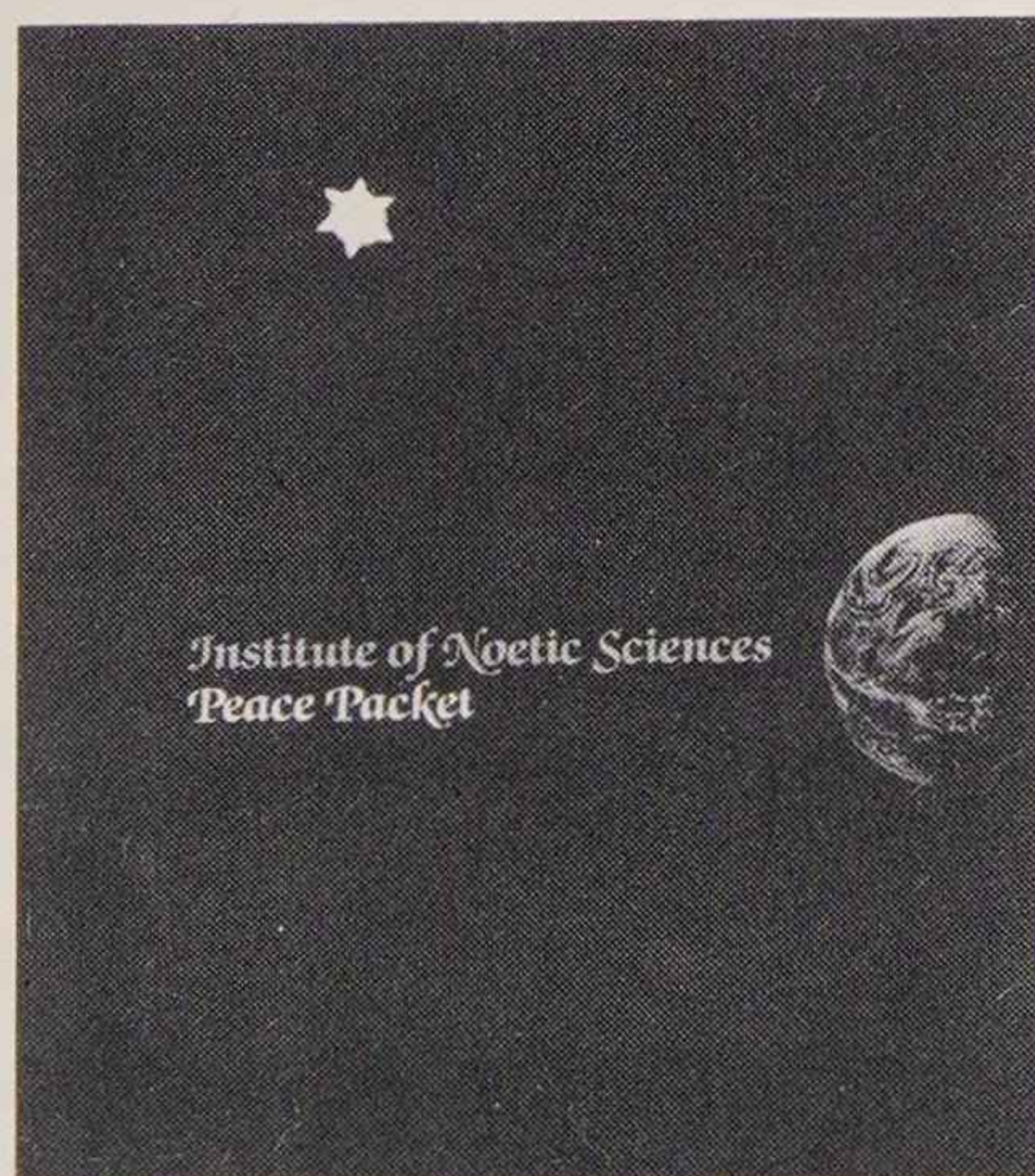
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Richard Smoke with Willis Harman

**PATHS
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Institute of Noetic Sciences
Westview Press



The Peace Packet

(Cat. #BG-150) Institute of Noetic Sciences, 1982.

Contains **Readings**, providing a historical and conceptual orientation to peace, especially US/USSR relations; **Inner Work Suggestions**, including how to get in touch with beliefs about peace, and techniques to modify beliefs; and **Outer Work References** for individual action, group opportunities and references.

\$12.95 Members' price: \$10.95

—See page 27 for book ordering information—

Join The President's Circle

The President's Circle has been established to support Willis Harman's work at the Institute. Willis is deeply committed to working with the global transformation that is so evidently a part of our immediate future—specifically to promoting understanding of why the transition must take place, and how the accompanying strains and human misery can be minimized.

Willis Harman is widely recognized as one of the "practical visionaries" of our time. He himself exemplifies the integration of spiritual and intellectual knowing that is at the heart of the work of the Institute of Noetic Sciences, and that we believe to be so central to the emerging global society.

This special funding is intended to allow Willis to use his time in the most effective way possible—meeting and exchanging views with individuals and groups, public speaking, and writing—without undue regard for the financial concerns of the Institute.

Willis is not just a "networker". He has been a catalyst or founding board member of several organizations dealing with the role of business in transformation, the search for global security, global development issues, etc. He frequently gives lectures or workshops on aspects of the "global mind change". All honoraria for Willis' speaking engagements are given to the Institute. However, he often speaks for minimal or no fees when the group or occasion warrants, and he would like even more freedom in this regard.

As to writing, Willis has been a frequent contributor to the Institute's publications and those of other organizations. Recent

books published include:

Higher Creativity, with Howard Rheingold (Tarcher)
Paths to Peace, with Richard Smoke (Westview Press)
Global Mind Change, available 12/1/87

One objective of the President's Circle is to free him to write even more in the future.

The present world transformation is occurring because vast numbers of people are changing their minds. Certainly no particular leaders of this mind change are indispensable, but Willis does seem to have a significant role to play. We would like to provide as supportive a base as possible for his contribution. By providing an underpinning of financial support, the President's Circle will enable him to select opportunities on the basis of where he is most likely to be able to make a difference.

The President's Circle will comprise a small group of individuals personally supporting Willis' work. He will expect to meet informally with the members of the group at frequent intervals, at the Institute or in their homes with friends, to update them on his activities, to discuss their personal interests and to give them an opportunity to be a part of his world and his work.

Members wishing to join the President's Circle may apply on the form on the next page, contact Winston Franklin at the IONS office—(415) 331-5650—or send checks to his attention.

As author Frances Horn wrote to IONS recently, "In a rare way, Bill combines within himself what we may think of as the best of the scientific and the spiritual—and with all of it available for practical expression in the world. Let's help the world hear him."

Travel News

The advance notice for all the 1988 travel programs is bound into the pages of this issue of the *Review* mailed out to members. There's a handy postal card reply attached that will make it easy for you to send for brochures with a full description of the trips that interest you most. You can also send a \$300 deposit to hold a space in any of the tours, and this deposit will be completely refundable if you decide not to take the trip upon seeing the full description. The trips will fill early so an early response is recommended.

The Philippines and USSR trip brochures will be available by October 1, the Czechoslovakia-Hungary-Yugoslavia and China trips by November 1; and the Japan and Bali/Indonesia trips by November 15.

Note:

It might be possible to add one or two people to the 1987 BURMA/THAILAND trip November 14-December 6. If you want to go on this trip, please phone Nancy at the Institute—(415) 331-5650.

For information on the 1988 tours, please phone Marguerite Craig, Director of Travel Programs, at (415) 461-7854, or send in the reply card from the Advance Notice.

1988 Schedule

THE PHILIPPINES - February 29-March 17

THE SOVIET UNION - April 24-May 15

**CZECHOSLOVAKIA-HUNGARY-
YUGOSLAVIA - July 11-27**

CHINA - September 24-October 9

JAPAN - October 9-23

BALI AND BEYOND - November 6-25

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Institute of Noetic Sciences 1988 TRAVEL PROGRAMS

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NOTICE

THE PHILIPPINES — February 29-March 17

On this study tour you'll meet leaders instrumental in the resurgence of democracy in the Philippines. We'll see innovative development projects in villages, farms and cities that can be models for other developing countries. We'll also take time to enjoy beautiful beaches, folk art and dance, fiestas. We'll observe spiritual healers and psychic surgeons. **ITINERARY:** Manila, holy Mount Benahaw, Banawe and Mt. Data, Tumbuli Beach Resort on Cebu Island, Bohol Beach Club at Tagbilaran, a fishing village, Chocolate Hills, a cruise through mangrove plantations, the International Rice Research Institute in Laguna, Lake Caliraya, and an optional two days in Davao, to see a total eclipse of the sun. **TOUR LEADER:** Marianne Larned, who has worked intensely in development programs in the Philippines. She also has a background in holistic health. **COST:** Approximately \$2,450 including air from San Francisco. Limit 40 people.



THE SOVIET UNION — April 24-May 15

Join us on our fifth annual Citizen Diplomacy journey of friendship and understanding. You will be treated as an honored guest by Soviet people. You'll see cultural and historic highlights in each city, but most of the time you'll be with people in their homes, schools, worship with them in their churches, mingle with them in the streets, parks, stores, and on busses and the Metro. We'll arrange meetings with people in your profession or area of interest. This year the USSR observes 1000 years of the Russian Orthodox Church, and we'll explore the upwelling of spirituality in the country. Cities include Moscow, Leningrad, Kiev, Vilnius, Tallinn and Helsinki. **TOUR LEADER:** Sharon Tennison has led 23 similar trips into the Soviet Union. She has a wide network of friends eager to receive us. **TOUR COST:** Approximately \$3,250 including air from the West Coast. Limit 40 people.



CZECHOSLOVAKIA-HUNGARY-YUGOSLAVIA — July 11-27

We'll travel through parts of Old Europe that date back to Neolithic times. We'll visit picturesque cities, see castles and villages, attend folk festivals, drive through spectacular mountain scenery, and stay at historic health spas and outstanding hotels. We'll observe how the new Soviet economic changes are affecting these progressive Eastern bloc countries. We'll find out how the people feel about their future and ours. In Yugoslavia we'll attend an International Conference on Shamanism. An optional tour extension visits Dubrovnik and Medjugorje, where the Virgin Mary reputedly appears daily. **TOUR LEADER:** Stanley Krippner, Ph D internationally renowned parapsychology researcher, will introduce us to his friends who are engaged in challenging research in the fields of alternative healing, shamanism, and parapsychology. **ITINERARY:** Prague, Brno, Teplice Spa, Budapest, Zagreb, and many towns and villages between. **TOUR COST:** Approximately \$3,300 including air from the West Coast. Limit 25 people.



CHINA — September 24-October 9



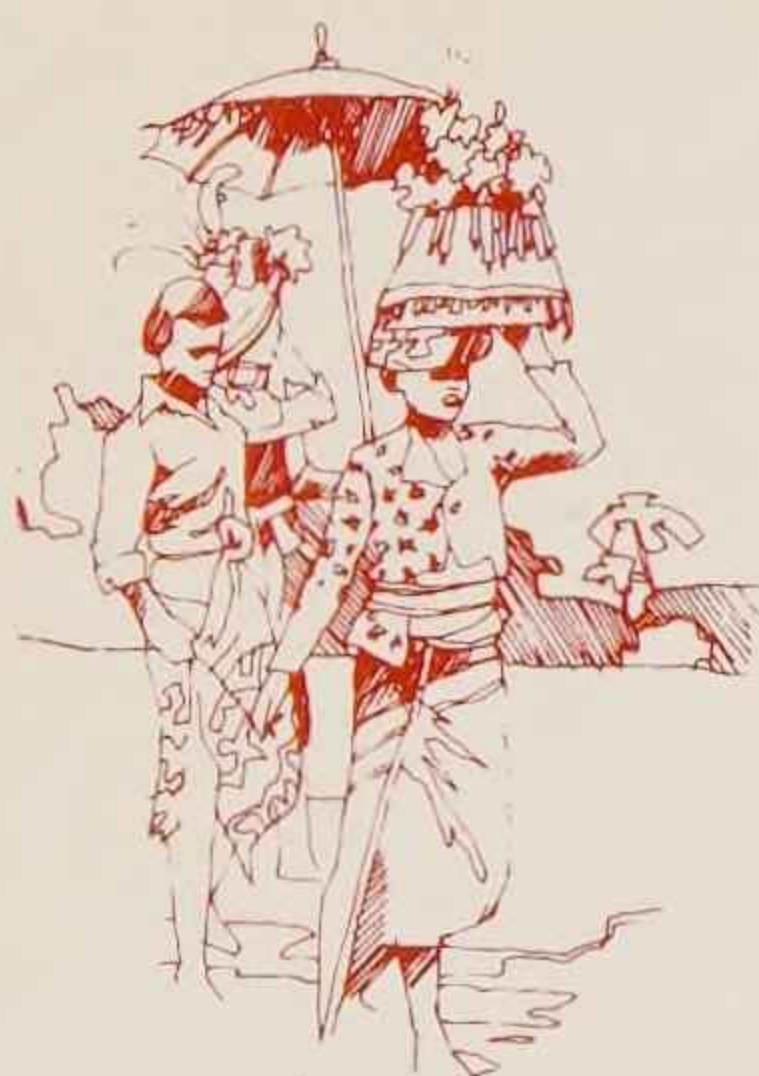
This journey will especially appeal to health professionals and interested others who have already visited China. While sightseeing will be arranged to the historic treasures in each place we visit, our focus will be an in-depth exploration of ways the Chinese are using the ancient healing form of energetic medicine called QiGong to heal chronic disease and as a prevention of diseases. We'll observe QiGong masters teaching and healing in hospitals and clinics, talk with researchers of QiGong and acupuncture, and learn QiGong in the parks with the people. Our tour leader will be a professional in the field. **ITINERARY:** Beijing, Shanghai, Canton. **TOUR COST:** Approximately \$3,850 including air from the West Coast. Limit 20 people.

JAPAN — October 9-23



For several days you'll stay in a health spa in the Japanese Alps, experiencing massage and Japanese healing treatments. We'll talk with health practitioners about their use of local herbs in healing. We'll visit the best of many other spas in the area and explore the ancient Matsumoto Castle and the historic town of Takayama. In Tokyo we'll stay at the Imperial Hotel opposite the royal palace and will meet with Japanese researchers in the noetic areas of interest. In Kyoto and Nara we visit the most outstanding of Japan's parks and gardens. We'll attend the Geisha Festival, the Festival of the Ages, where 2000 Japanese parade in picturesque costumes depicting historical events, and a Fire Festival at Yuki Shrine. In Osaka we'll visit the famed Ethnology Museum. Tour leader to be announced. **TOUR COST:** Approximately \$3,375 including air from the West Coast. Limit 25 people.

BALI AND BEYOND — November 6-25



Bali—everyone's "dream island"—is beckoning us to return. Our 1986 trips there were so popular that Bruce Carpenter, who has lived many years in Indonesia, will again lead our group. He will bring us to healers, dancers and artists who are his friends. We'll visit in homes and villages and watch healers at work. We'll stay in Ubud and at the beach. We can experience Balinese massage. We'll see beautiful religious rituals and processions in this lush, tropical enchanting land. For the Balinese daily life is a celebration. The trip includes 8 nights in Bali and 9 nights cruising the Spice Islands aboard the luxurious MV Island Explorer, with a crew of 25. We'll explore and swim and enjoy the islands of Kupang, Sumba, Roti, Alor, Flores, Komodo, Sawu, where megalithic tombs recall an ancient pagan society, Sumbawa and Lombok. These lovely islands are seldom visited by tourists. Those who don't like cruising can elect to fly instead to the island of Sulawesi, where there are many fascinating tribal groups, including the Tanah Toraja people who celebrate death with elaborate funerals and effigies. Our final night and farewell dinner in Bali will be at the luxurious Nusa Dua Hotel. **TOUR COST:** Approximately \$5,475 with cruise, including air from the West Coast. Bali and Sulawesi, approximately \$3,350 including air. Limit 30 people.

Note: Exact prices and daily itineraries will be confirmed in tour brochures. The price of each tour includes careful planning and daily arrangements, attentive pre-departure assistance, study materials, leadership, and experienced staff management. Safety of the group is of primary importance, and in the event of political disturbance in any area, the Institute reserves the right to change an itinerary.

For information about the Travel Program
phone Marguerite Craig, Director, at 415/461-7854 or 415/331-5650.