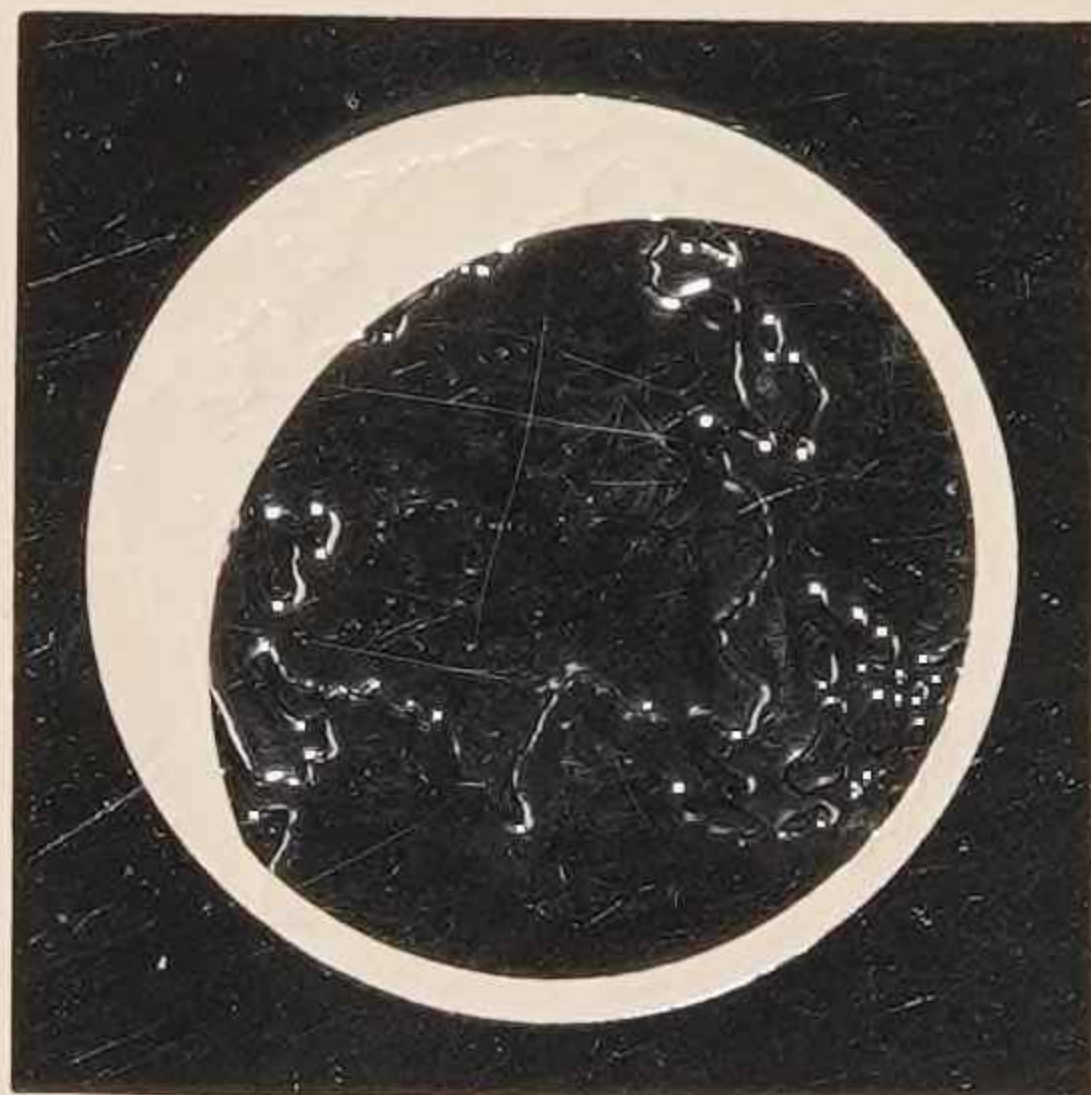
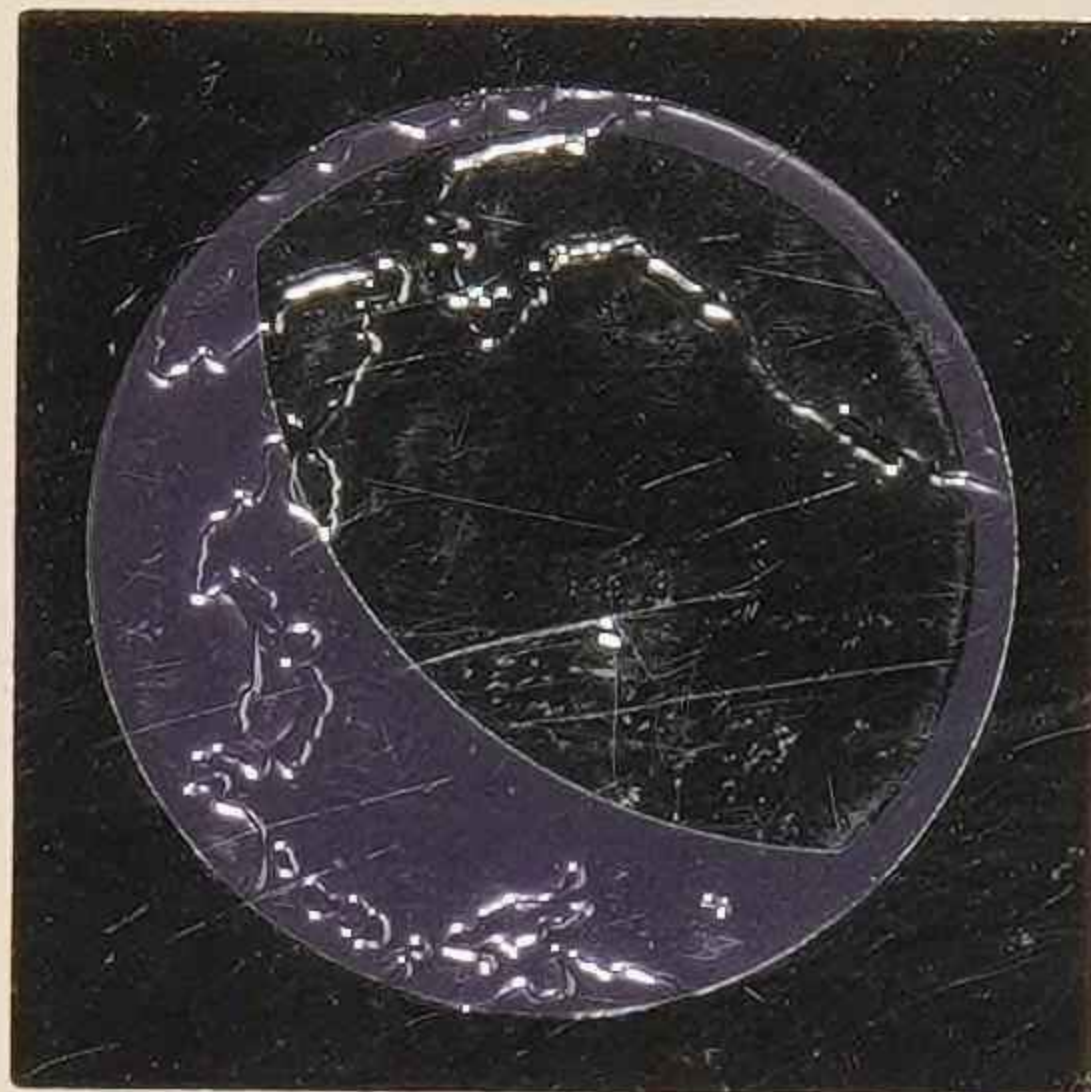


NOETIC SCIENCES

REVIEW



WINTER 1986

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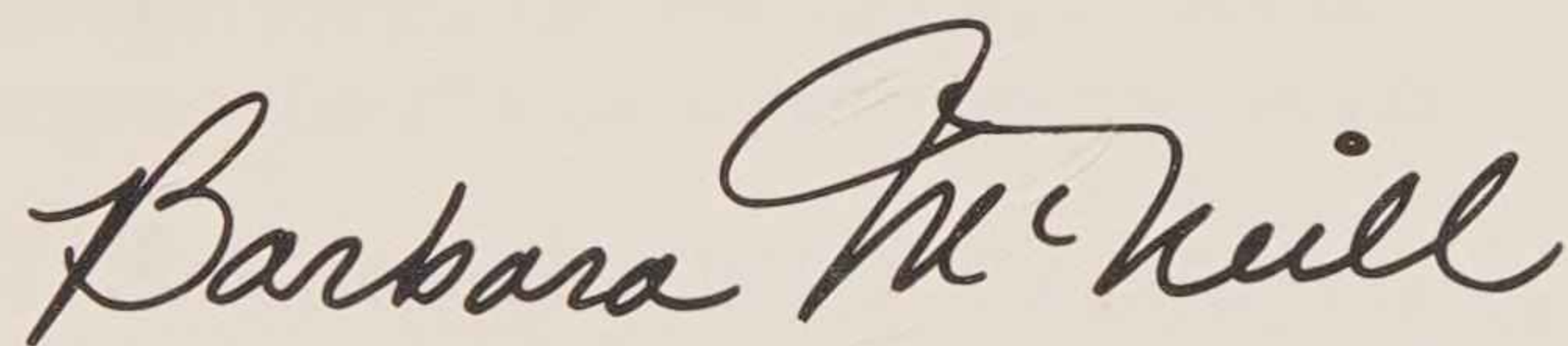


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Welcome to your first issue of the *Noetic Sciences Review*, which replaces the Institute of Noetic Sciences *Newsletter*. This metamorphosis reflects the need of the Institute for a quality publication with broad appeal to encompass our ever-expanding spheres of activity and influence. We celebrate this inaugural issue as well as the Institute's *thirteenth* anniversary.

The Institute staff would like to honor our members, our patrons and our Board of Directors. Your curiosity, encouragement and participation keep us going. The full range of the many programs that you support are reviewed in this Winter issue.

We thank you for contributing generously of your time, money, love and energy to this important work.

A handwritten signature in cursive script that reads "Barbara McNeill". The signature is fluid and elegant, with a large initial 'B' and 'M'.

Barbara McNeill
Editor

Institute of Noetic Sciences

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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.

For membership information see page 31.

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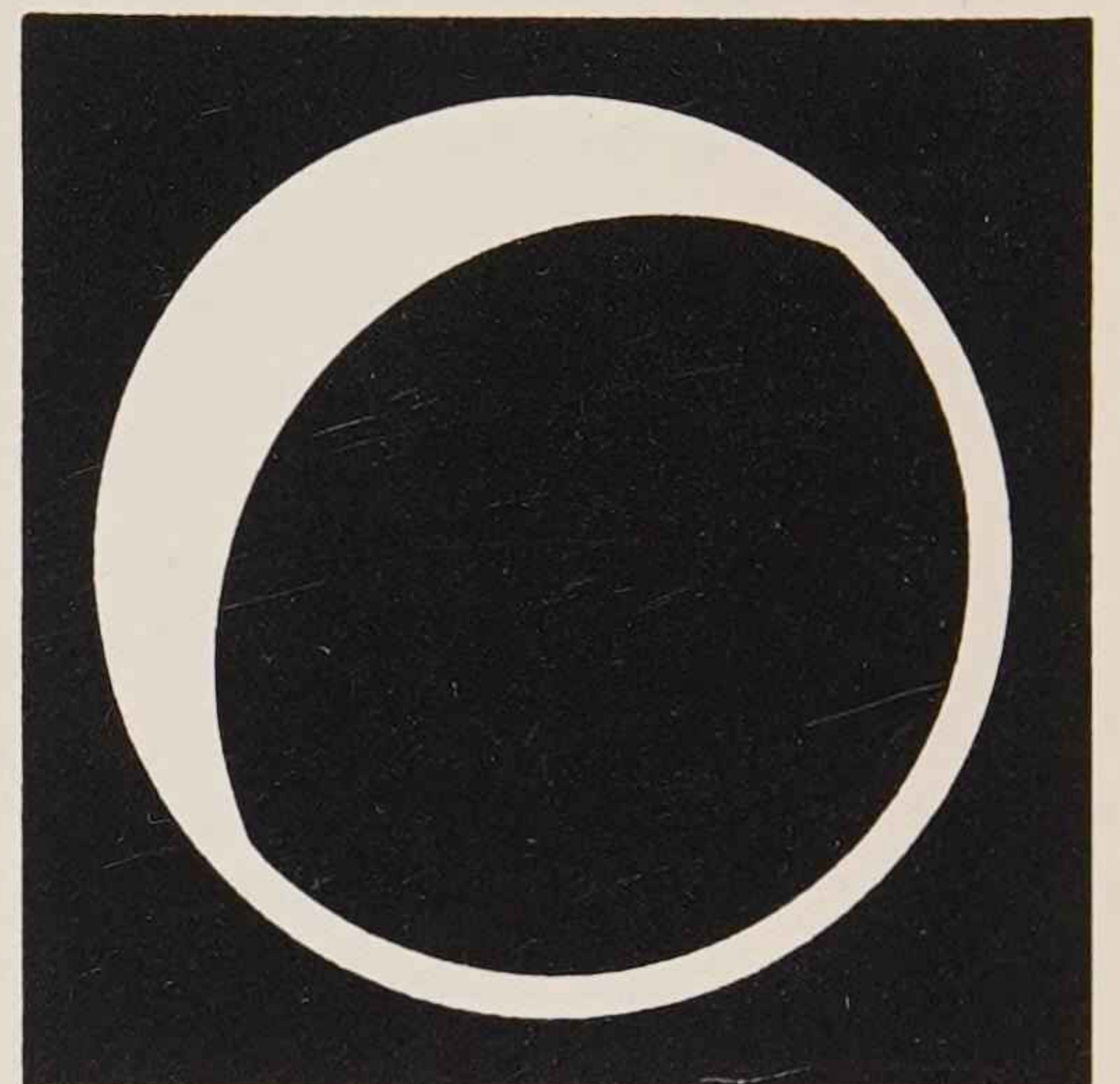
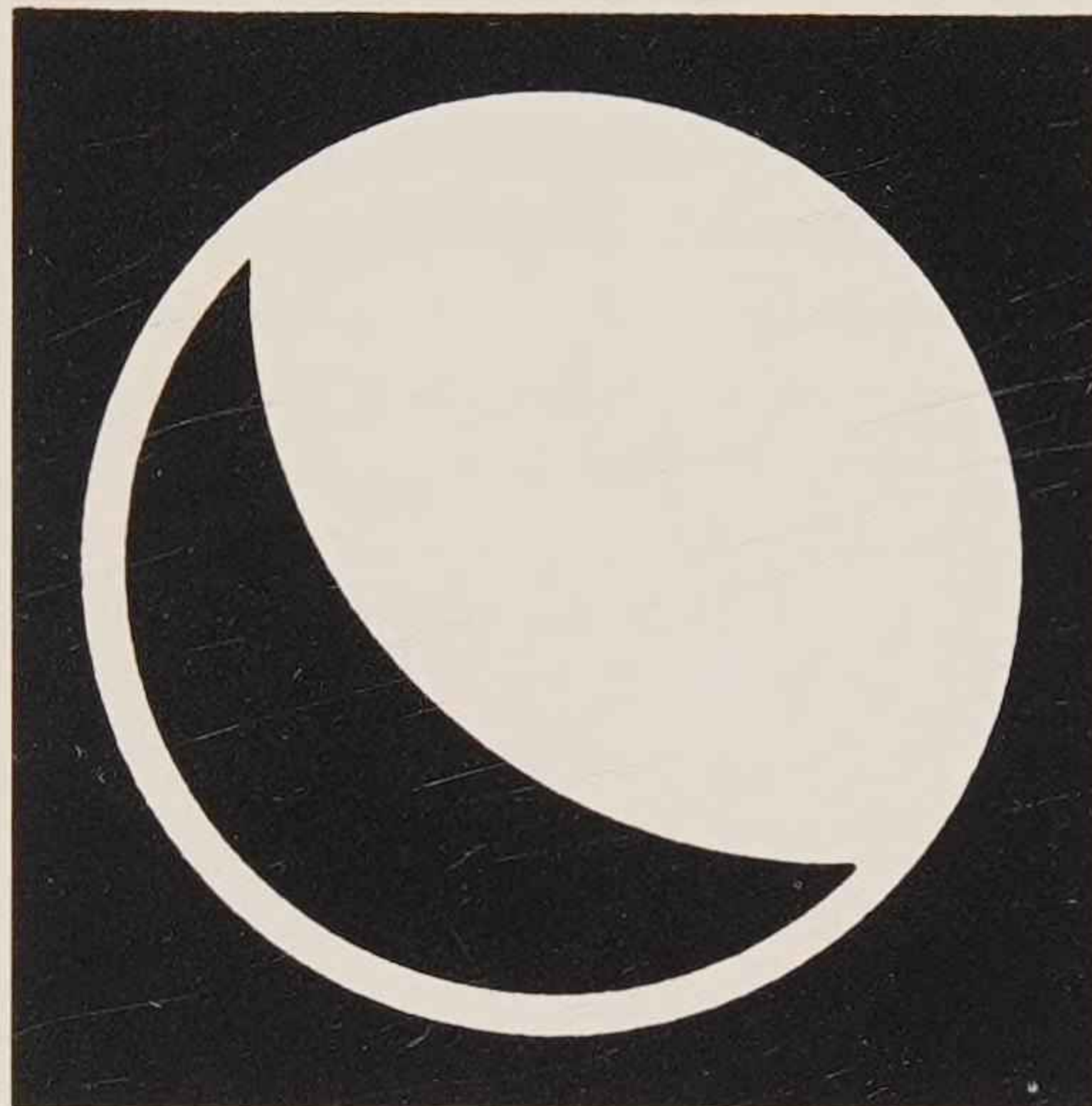
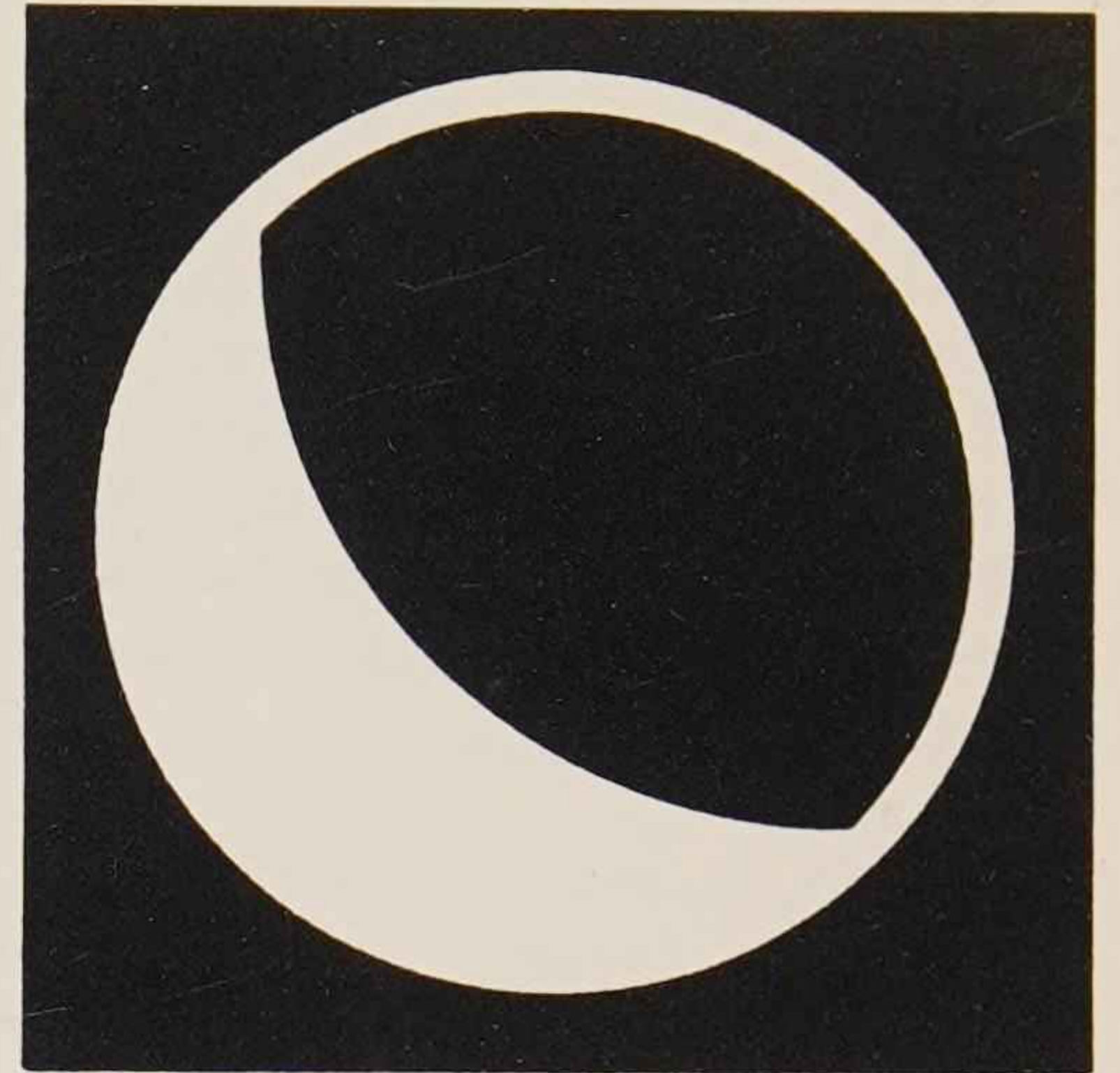
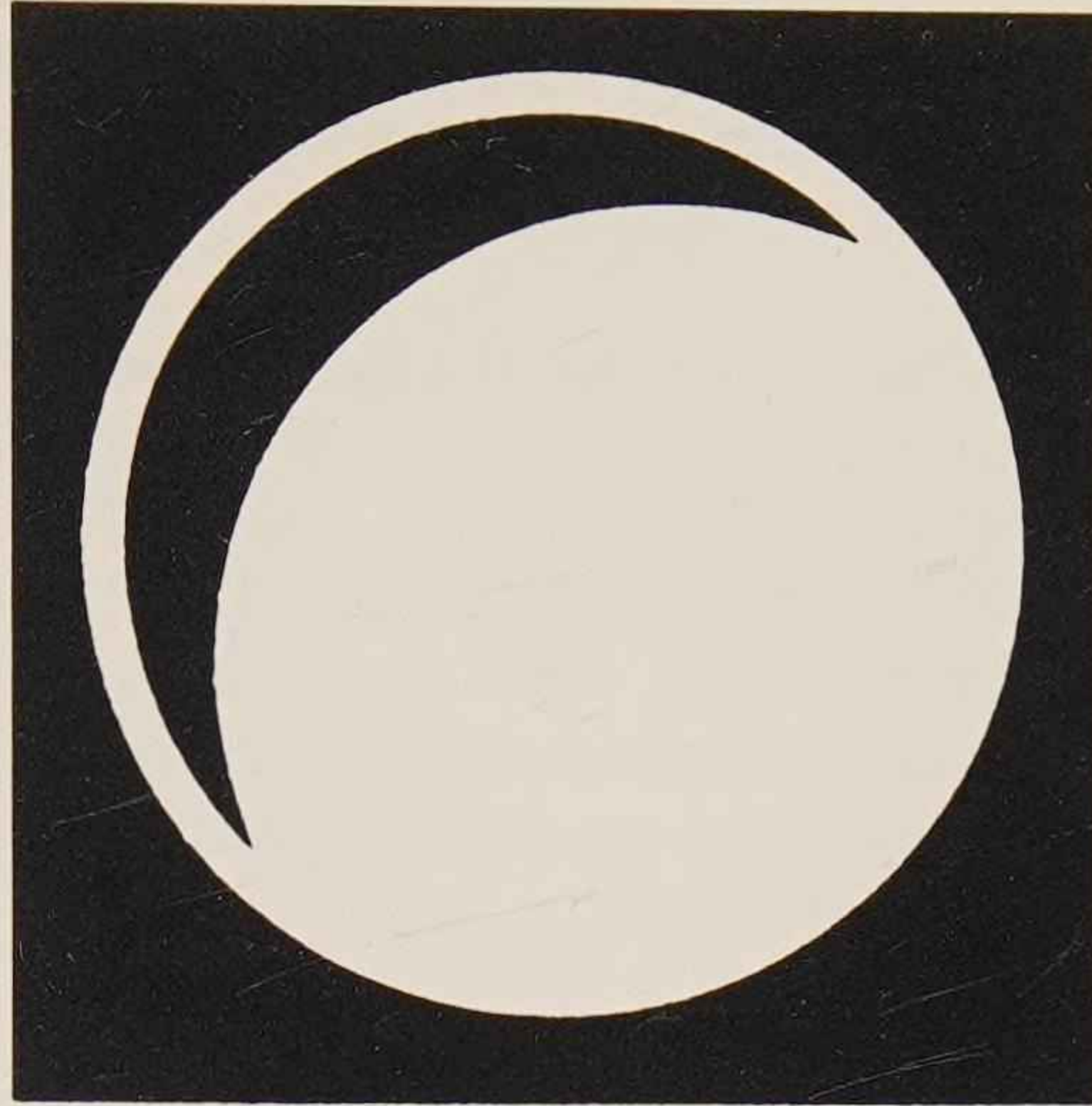
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Our cover graphic describes Earth at four points in its orbit, corresponding to the seasons. Proceeding in a counter-clockwise direction, Winter is at the upper right, followed by Spring, Summer and Autumn. Art by Kevin O'Farrell.

A Vision in Review



Kevin O'Farrell

*"We must come
to study and
know ourselves,
our motivations,
and our exceptional
capacity to
become what
we dream
we can become—
our unlimited
potential for
future growth and
understanding."*

With those inspiring words, Institute founder Edgar Mitchell set the course of his fledgling organization in 1973. Now, on the occasion of our launching this new quarterly *Review*, it seems appropriate to survey the Institute's programs over the intervening thirteen years to see where we stand in relation to this initial vision.

A number of research topics supported by the Institute during its early years seemed to be anomalies at the time, but have since become integrated into our understanding and culture. This is true, for example, for some of the holistic health practices that were investigated in the mid-1970s, as well as for the use of biofeedback training to enhance conscious control of autonomous bodily functions. Even the

use of imagery in cancer therapy, a daring pilot project of the Institute in 1976, no longer seems unusual to many in today's culture.

Other early topics of investigation, such as telepathy and clairvoyant "remote viewing", continue to be viewed by many as anomalies, although new research data regarding these phenomena have accumulated over the past decade and they may yet prove important areas for development.

In our current research the Institute continues to address what are deemed to be the most promising areas of the still unexplored frontiers of the human mind and spirit. In addition to this research, the Institute also sponsors a variety of activities aimed at disseminating and applying known research findings, and

to page 5. . .

Past Projects List

The following are some of the projects the Institute of Noetic Sciences has supported and sponsored:

Exceptional Human Abilities

- **Biofeedback Research.**

The Menninger Foundation, Topeka, Kansas. Dr. Elmer Green. An investigation of exceptional levels of control over autonomic functions in the body to discover the limits of voluntary control.

- **Brain Resonance Research.**

Langley Porter Neuropsychiatric Institute, University of California Medical Center, San Francisco, and The Holmes Center, Los Angeles. Dr. Jean Millay and Dr. Jim Johnston. An exploration of the implications for human communication of brain synchronization within and between individuals.

- **Engineering Anomalies Research.**

School of Engineering and Applied Science, Princeton University, Princeton, New Jersey. Dean Robert G. Jahn. A laboratory investigation of the capacity of individuals to perturb sensitive laboratory instruments without physical contact.

- **Extended Human Capabilities.**

Department of Psychology, Harvard University, Cambridge, Massachusetts. Dr. Herbert Benson. Scientific measurements of exceptional abilities of practiced Tibetan meditators.

- **Remote Viewing Project.**

SRI International, Menlo Park, California; Foundation for Parasensory Investigation and NASA. Dr. Harold Puthoff and Russell Targ. A research project on the capacity of subjects to accurately describe remote targets shielded from normal means of perception.

- **Telepathy Research Project.**

SRI International, Menlo Park, California. Dr. Harold Puthoff and Russell Targ. An investigation of telepathic communications under experimental conditions.

Health and Healing

- **Auricular Diagnosis.**

The Acupuncture Clinic, University of California at Los Angeles. Dr. David Bresler. An investigation of monitoring ear acupuncture points as a reliable diagnostic technique.

- **Health for the Whole Person.**

Institute of Noetic Sciences and National Institute of Mental Health. Dr. Arthur Hastings, Dr. James Fadiman and Dr. James Gordon. A comprehensive bibliography and commentary on holistic medicine and its relevance to current physical and mental health.

- **In Pursuit of Wellness.**

First and Second Annual Conferences. Invited conferences with each attended by over 800 medical doctors and health professionals exploring the wellness concept.

- **Limits of Human Educability.**

Office of Education, Washington, DC. Dr. Jerry Fletcher. An investigation of the upper limits to which humans can receive and assimilate information and education.

- **Melanin and the Mind/Body Problem.**

Dr. Frank Barr. An investigation of the role of the melanin molecule in the mind/body link.

- **Near-Death Experiences and the Dying Patient.**

Hospice of Palm Beach County, Florida, and International Association for Near Death Studies. Dr. Kenneth Ring and John Audette. An exploration of possible connections between the needs of dying patients and data emerging from recent studies of near death experiences.

- **Psychological Support and Cancer.**

Cancer Counseling and Research Center, Ft. Worth, Texas. Dr. Carl Simonton and Stephanie Simonton. An interdisciplinary research effort to examine the connection between the psychological and physiological aspects of cancer patients.

- **The Sage Project.**

Senior Actualization and Growth Exploration, Berkeley, California. Dr. Gay Luce and Dr. Ken Dychtwald. A program to develop techniques of rejuvenation and rehabilitation of the elderly.

- **The Superhealthy Project.**

The Institute for the Study of Humanistic Medicine, San Francisco. A project to develop research methodologies to identify the "superhealthy" and study their characteristics.

Societal Transformation

- **First Planetary Congress.**

Association of Space Explorers. Esalen Institute, Soviet-American Exchange Program. A gathering of astronauts, cosmonauts and other space explorers to share their experiences in space and to explore opportunities to use their shared experiences to encourage world peace.

- **Hope for the Earth.**

Institute of Noetic Sciences and United Nations University for Peace. Dr. Willis W. Harman. A program to explore the relationship between consciousness research and the global dilemmas.

- **Human Consciousness Research Program.**

Institute of Noetic Sciences, Charles F. Kettering Foundation, The Minneapolis Foundation, The Threshold Foundation, Luke B. Hancock Foundation and Atari Institute for Educational Action Research. Brendan O'Regan. A series of conferences and meetings to assess and advance the state of the art in consciousness research today, its value to society and its potential impact on the fields of health, education and social policy.

- **Soviet-American Exchange Program.**

Esalen Institute. Dr. James Hickman and Michael Murphy. A series of dialogues between Americans and Soviets to encourage communication and understanding across cultural barriers.

In our current research the Institute continues to address what are deemed to be the most promising areas of the still unexplored frontiers of the human mind and spirit.

... from page 3

at exploring implications for society of the new knowledge. Work in all these areas falls conveniently into three programmatic groupings:

- **Exceptional Abilities**
- **Health and Healing**
- **Societal Transformation**

These three programs are described in the text immediately following this section. A partial listing of Institute-funded research projects from 1973 to the present, grouped under these three headings, is on the accompanying page.

Consistent throughout the history of the Institute has been a vigilant effort to direct our inquiries to the more fundamental issues underlying popular interests. For instance, the Institute-sponsored research on holistic health and the conferences on "wellness" were cast in the language of the day. Yet the focus throughout was on more fundamental issues, such as the mechanisms by which mind and body interact. This focus on the mind/body connection carries forward today in the current program "Inner Mechanisms of the Healing Response". Similarly, the recent symposium on "Consciousness and Survival" was at one level an inquiry into the age-old question of what happens to us when we die, while at another level it addressed a serious concern about why scientific research has so little to say about questions which have profound meaning for the individual and society's values.

Also consistent throughout the Institute's history has been adherence both to the highest professional standards of excellence and to rigorous scientific methodology, even in such areas as parapsychology—where the careful use of scientific methods proves

extremely difficult. When psychic research was a focus of the Institute, for example, scientists with strong background from well-established institutions were selected for funding. These researchers brought to their inquiries both the discipline of their scientific backgrounds and the sophistication of their laboratory equipment. Similarly, as it became clear that spiritual healing was a topic that cannot be ignored, we sought to approach this phenomenon first through an indirect route, supporting a variety of research projects on the role of the mind in healing, the functioning of the body's immune system, and the capabilities of physical systems of the body for rapid change. Only with this foundation in place did we begin exploring reports of miraculous healing at Lourdes and Medjugorje. And finally—to cite a third example—when growing popular interest in channeling made it apparent that it had to be on our agenda, we identified one of the most respected scholars in the area of transpersonal psychology to undertake a comprehensive study of channeling phenomena (see pages 25-26).

A common thread that runs through much of the research we support (or engage in ourselves) is a convergence of science and the ancient wisdom of the spiritual traditions. As it becomes ever clearer that the area of human consciousness is an important—some would say *the* important—frontier for science and society, we have to take note of some research laboratories that have been looking into this matter for thousands of years. We refer to the monasteries of several continents. Because of the religious context and language associated with them, the world has been late in recognizing that the work of

these "laboratories" included development of some very sophisticated psychologies. This convergence of the "perennial wisdom" of the spiritual traditions and the findings in the transpersonal psychologies and other Western research disciplines promises to provide the fuel for a global mind change—a transformation in values, beliefs, and worldview.

While the purpose, fundamental programs, and method of inquiry have been fairly consistent over the years, recognition and acceptance of the Institute has been growing steadily. Membership has grown to over 12,000 active members; funding has shifted from exclusively individuals and family foundations to include larger, mainstream foundations as well; inquiries for information and interviews are no longer limited to the public broadcasting media, but now are regularly received from the commercial stations and networks; and articles concerning consciousness and the mind/body link are appearing in the popular press. As recently as September 29, a front page feature story in *The New York Times*, entitled "Spiritual Concepts Drawing a Different Breed of Adherent", discussed the movement of many of these ideas into the mainstream through corporate training programs, personal development organizations and medical treatment.

Throughout the advances that have occurred in these areas over the last thirteen years, the Institute has remained on the forefront of research and education. As aspects of the frontiers of the mind continue to shift into mainstream science, the Institute seeks new frontiers to investigate. Those currently under investigation are described on the pages which follow.

The Perennial Puzzle of Untapped Potentials

The Exceptional Abilities Program

by Thomas J. Hurley III

- What are the inner and outer limits on human ability?
- Is each of us capable of extraordinary achievement, and if so, what are the keys to it?
- How can exceptional abilities be trained, and what are the implications of new knowledge about them?

Answers to these questions—advances in our understanding of "the farther reaches of human nature"—can help define a new, vital vision of human possibilities and renew commitment to positive individual and social goals.

Exceptional abilities range from *ordinary capacities developed to an outstanding degree*, such as lightning calculation or photographic memory, to *anomalous and paranormal capacities*, such as remote viewing or absent healing. They also include *exceptional achievement* as manifested in creative genius or in the cultivation of heroic character traits such as creative altruism, and *extraordinary systemic transformations* such as spontaneous remission and unusual voluntary control of mind/body functions. These abilities challenge both the adequacy of existing scientific models of human functioning and individual beliefs about the limits on personal excellence and achievement. Research and education to discover more about the nature, mechanisms and scope of exceptional abilities could have far-reaching implications for scientific policy and research; for learning and performance in business, education and sports; for individual health and well-being; and for social values and beliefs.

While gathering data on the complete spectrum of exceptional abilities, we are targeting a small, select group for more intensive investigation. Drawn from each of the four categories just described, these are:

- Exceptional memory
- The magic of mastery and expertise
- Voluntary control of dissociative processes
- The mystery of creative genius
- Attention and intention in excellence and peak performance
- Exceptional psychological well-being
- Creative altruism
- Channeling and mediumship

Exceptional abilities are poorly understood but potentially of the greatest significance. That significance cuts across several current areas of concern:

Scientific: Studying exceptional abilities will shed light on the mechanisms underlying them—mechanisms which may be unique to those displaying extraordinary powers, or which may be present in all of us awaiting the proper stimulation, training and development. A focus on exceptional abilities, broadly defined, will thus yield new knowledge about the processes of optimal learning and development.

Scientific study of exceptional abilities also provides a test of current models of mind/brain function. Can existing models of perception, memory, attention, etc., account for the extraordinary feats of lightning calculators, people with photographic memories, and others with capacities far beyond the average? If not, new models and concepts may be required and research on exceptional abilities may suggest them.

Practical: Knowing how to promote, develop and use specific exceptional abilities will lead to more effective practices in business, education, health care, sports and numerous other areas of everyday life. Improved methods of teaching and learning will promote the maximum development of human capacities.

Psychological: Each of us experiences the urge to excel, the desire to surpass the ordinary limits of our lives through extraordinary achievement of some kind. This inner imperative is

expressed in the context of cultural values and beliefs concerning exceptional abilities. These values and beliefs partially define what we think we are capable of being or doing, and they may or may not support the inner urge; all cultures tend to value some abilities at the expense of others. A study which highlights the roles (both conscious and unconscious) that knowledge about exceptional abilities plays in shaping our visions of growth and development, as well as the psychological and social factors that support or inhibit excellence, will help people find new sources of meaning and purpose and increase their options for unique achievement.

Philosophical and Social: Priorities for research and development in science, medicine, and society generally reflect a largely tacit set of assumptions about the nature and role of human life and the principal dynamics of change in human systems. With scientific advances in our understanding of mind/brain function, and advances in the psychology of human growth and development, however, we may discover that a new view of human nature and abilities is warranted. Grounded in science and yet sensitive to the subjective dimensions of human experience, this view could have far-reaching implications for social institutions and the overall goals of society. Drawing attention to these implications could promote more serious treatment of the profound issues which confront us in the late 20th century.

The Institute's Program on Exceptional Abilities is presently working to:

- *Establish a database:* Who demonstrates exceptional abilities? How have their abilities been documented or studied—and what were the findings?
- *Develop a research agenda:* Which abilities, if understood better, would have the greatest significance for science and society? What are the most promising ways to study them?

Sponsor public symposia and scientific roundtables: By fostering dialogue, can we inspire new public and professional interest in the extraordinary and still largely untapped potentials of human mind, body and spirit?

Support cutting-edge research: Which studies might pioneer advances in theory and practice about constructive human capacities and characteristics—and how can the Institute support them?

Publish information about new findings: Through timely reporting of advances in the theory and investigation of exceptional abilities, as well as new developments in their application, we hope to broaden interest in the field of extended human capabilities and promote optimal human learning and development.

In addition to these general areas of activity, we are undertaking an in-house study to identify critical research areas

and issues pertaining to exceptional abilities. We are converging on this question from two directions.

First, we are surveying leading research scientists in the fields most concerned with exceptional human functioning. Experts will be asked to identify the most fruitful areas for "next-generation" research on exceptional abilities and to consider the conceptual, methodological and practical advances that could ensue from such studies.

Second, we are analyzing the principles, practices and assumptions of executive development programs which claim to develop exceptional abilities, and assessing them against the knowledge base of science, including its research findings, prevailing hypotheses, current models and metaphors, etc.

In this two-pronged research project we are attempting to identify those key areas where high-quality research might actually shed new light on the mystery

of untapped human potentials. By asking practicing scientists to identify the areas they think might lead to new insights, we are tapping the wisdom of their experience. At the same time, by comparing the beliefs and practices of people who apply knowledge about extraordinary functioning in professional settings with the insights of research scientists, we may see areas of potential development that are not emphasized in the researchers' reports.

For instance, we may find that some of the principles and practices, and some aspects of the experiences and changes reported in applied programs, are not supported by current research findings, or even seem not to be plausible given current scientific models and metaphors. Thus, our study may turn up critical research areas and identify places where new conceptual frameworks appear to be required to deal with exceptional abilities.

Exceptional Abilities Program: Current Projects

The following list represents projects funded by the Institute during the past several years in the Exceptional Abilities Program. In many cases, the Institute is collaborating in the support of these projects with other individuals and organizations.

Charting Paradigm Shifts.

A Day of Critical Discussion. Sponsored by Elmwood Institute, Melia Foundation and Institute of Noetic Sciences. A day-long seminar which focused on the questions, "Is a New Paradigm Emerging? Two Views" and "What are the Present Keys to Future Paradigms? Science, Religion, Gender and Ecology", in addition to providing participants exclusive time for discussion of selected individual topics.

Consciousness and Survival.

Sponsored by the Institute of Noetic Sciences in cooperation with the Office of Smithsonian Symposia and Seminars. A public symposium convened at Georgetown University to explore new approaches to the question "Does

consciousness survive physical death?" Audio tapes and hard copy proceedings available from the Institute of Noetic Sciences.

• Creative Altruism Seminar.

An internally managed project of the Institute of Noetic Sciences. A seminar bringing together fifteen researchers and theorists to discuss the work of Harvard sociologist Pitirim Sorokin and its implications for further research concerning creative altruism—the capacity for selfless service motivated by love.

• Daring to be Great.

Dr. Judith Cornell. A book about creativity, based on non-traditional methods of teaching drawing to students with little or no previous art training, to be published in 1988.

• Feminine Face of God.

Dr. Sherry Rochester and Patricia Hopkins. A survey of the experience and practice of exceptional feminine spiritual leaders, resulting in a book that will clarify the characteristics of feminine spiritual maturity.

• Higher Creativity.

Dr. Willis Harman and Howard Rheingold. A book that reviews key findings in the psychology of consciousness and provides practical techniques for exploring the multiple manifestations of creativity in our daily lives.

• A New Look at Channeling.

Institute of Transpersonal Psychology, Dr. Arthur Hastings. A critical assessment and review of the state of knowledge about channeling, or mediumship, including analysis of examples of channeled writing. Dr. Hastings' research will be published as a book in 1988.

• Waking Up.

Dr. Charles T. Tart. A book reviewing the teaching and practices of G. I. Gurdjieff, augmented by Professor Charles Tart's personal experience with such disciplines as Akido, Buddhism and Western psychological systems, intended as a practical guide to realizing more advanced states of awareness in the midst of everyday life.

Discovering the Healing System

Inner Mechanisms of the Healing Response Program

by Brendan O'Regan

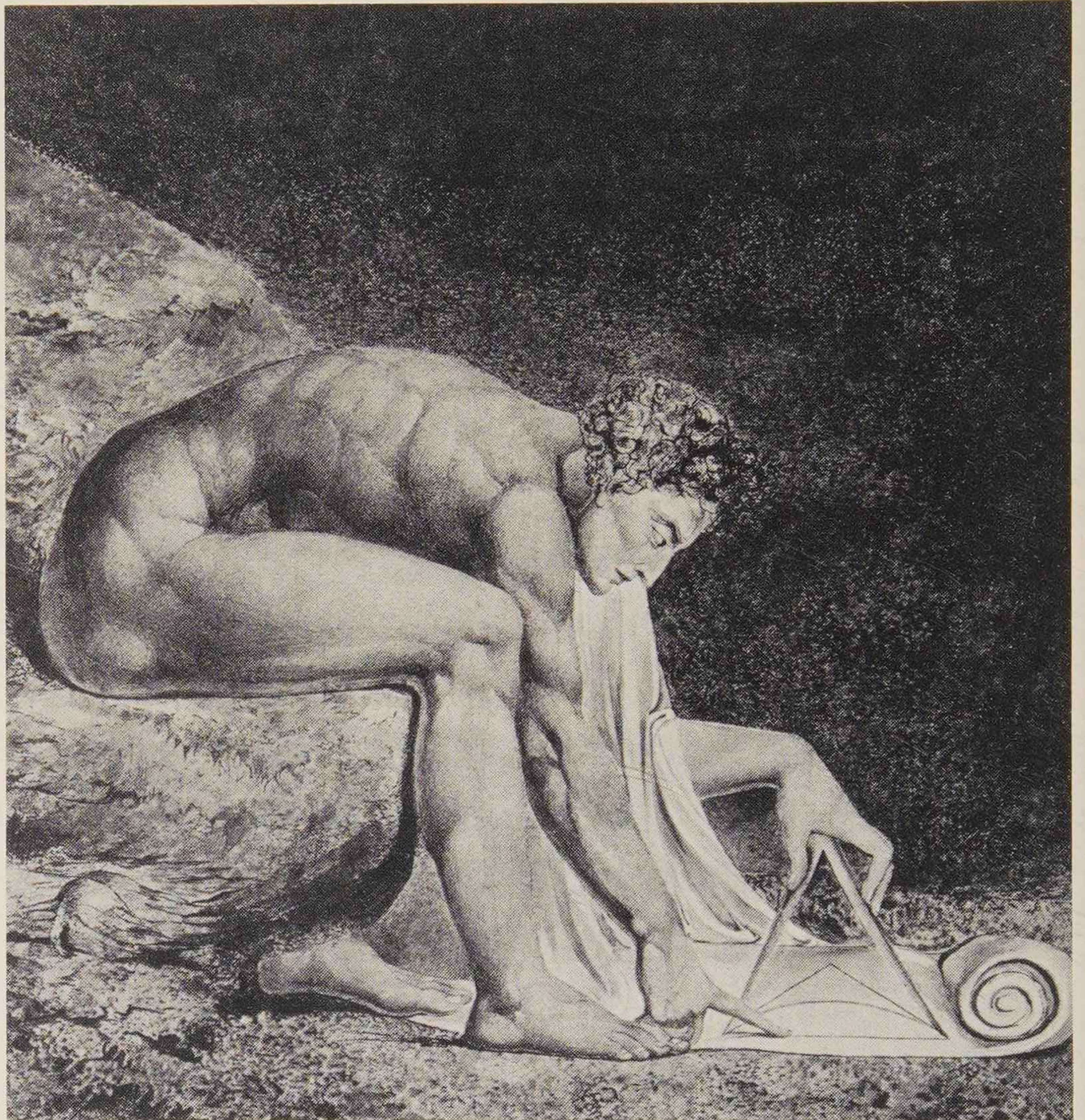
Vice-President for Research and Director, Inner Mechanisms Program

The Institute is engaged in a multidisciplinary effort which began in earnest in September of 1984. Entitled "Inner Mechanisms of the Healing Response", this program grew out of the Institute's broader interest in exceptional abilities, and is funded by a number of individuals, family and public foundations.

The premise of the Inner Mechanisms Program is that perhaps we all possess an innate *Healing System* which exists in parallel with the other major systems of the mind, body and spirit. The aim of the Program is to discover this natural self-repair system, map its components, and slowly build an integrated image of its geography and functions.

The idea that a healing system exists is based on the concept that the connections between the mind, brain and spirit may act in concert in a special way when healing occurs. In the words of Norman Cousins:

"Over the years, medical science has identified the primary systems of the human body—the circulatory system, digestive system, endocrine system, autonomic nervous system, parasympathetic nervous system, and the immune system. But two other systems that are central to the proper functioning of a human being need to be emphasized: the healing system and the belief system. The two work together. The healing system is the way the body mobilizes all its resources to combat disease. The belief system is often the activator of



William Blake

the healing system."

The idea that we should approach the study of healing from a *systems* point of view is relatively recent; the Inner Mechanisms Program has been one of the originators of this view. In focusing on the *healing system*, Institute research programs approach that system in terms of the kinds of properties it may have. Those properties were described as follows in the Spring 1986 issue of the Institute *Newsletter*:

Basic Tenets of the Inner Mechanisms Program

1) **The Evidence:** There is a wide body of evidence suggesting that extraordinary healing, including

regression of normally fatal tumors, takes place, and for which no scientific explanation is known.

2) **The Healing System:** This implies the existence of a Healing System which appears to contain three components:

- 1) A Self-Diagnostic System,
- 2) A Self-Repair System, and
- 3) A Regenerative System

3) **Triggers:** The evidence suggests that this kind of healing can be triggered by a variety of stimuli, diverse in nature, including signals, suggestions and guidance from the physical, mental and/or spiritual realms of every individual.

The idea that a healing system exists is based on the concept that the connections between the mind, brain and spirit may act in concert in a special way when healing occurs.

4) **Researchability:** This unknown Healing System is describable and researchable in a manner similar, but not identical, to the way other well-known control systems in the body became known, e.g. the Nervous System and the Immune System.

5) **Anatomy:** The anatomy of the Healing System will resemble the *communications system* now being uncovered in psychoneuroimmunology. The immune system does of course have a host of physical components, but its primary functions are being revealed more by its way of recognizing its environment and communicating the consequences of that recognition within itself and the body as a whole. Similarly, the Healing System will have physical components that act in concert when challenged, but its true nature may follow the model of a communications/information system than that of the more familiar physically connected systems in the body.

6) **Structure:** Certain aspects of the Healing System are similar to other systems in that this system can also organize and direct "lower" levels to effect specific reactions, removal of unwanted substances, cleansing of tissues and achieve the restoration of order. So it is proposed that the Healing System will also prove to be a *hierarchical system* but with both physical and symbolic components.

7) **Meta-Structure:** Other aspects of this unknown Healing System are dissimilar to other known systems in that it acts as a "meta-system" between the realms of mind and matter in symbolic ways that resemble the manner in which the nervous system alone normally acts, but which include a wider realm of expression.

8) **Significance:** It will be as important to discover the Healing System as it has been to discover the Nervous System or the Immune System. This unknown system may turn out, in part, to be a special interface between these two systems, but it operates by rules that are not identical to those of either.

9) **Goal:** The goal of the IMHR Program is to discover and map the structure and dynamic functions of the Healing System.

The Four Major Foci of the Inner Mechanisms Program

The operation of the Inner Mechanisms Program is currently being guided by developments in four different fields of research. These are rapidly evolving fields and emphases may shift as one or another of these fields evidences unusual promise.

1) **Psychoneuroimmunology:** The growing new field of psychoneuroimmunology is proving to be one of the more important scientific approaches through which to examine the notion of a *healing system*. This new discipline has emerged as one of the central foci of the Inner Mechanisms Program. The primary focus of the initial grants of the program therefore has been to examine the systems of linkage between mind, brain and the immune system as the primary element in the structure of the *healing system*.

2) **Remission Research:** Another very important body of evidence suggesting the existence of a *healing system* is the growing body of data on the phenomenon of spontaneous remission. The Institute of Noetic Sciences has conducted the largest survey ever done of

medically reported cases of remission and as a result now has over 2,800 reports from over 800 medical journals on file in both hard-copy and in an electronic data-base.

At this point there is not only strong evidence for the existence of remission as a real phenomenon, but also an emerging sense of how aspects of the process may be researched. There are hints, for example, that there may be genetic aspects to remission, and that blood or plasma-borne factors mediating remission may be isolable. These emerging data constitute the strongest body of evidence for the existence of extraordinary self-repair capacities in people. In view of the recent developments in the study of naturally-produced immune stimulants for cancer and the emergence of psychoneuroimmunology and genetic engineering, it is anticipated that remission research will become an important line of approach to the study of healing and natural self-repair processes in people—not only in the Inner Mechanisms Program but also in biomedical research in general.

3) **Spiritually Mediated Healing:** A third element of importance concerns the spiritual conditions that often accompany extraordinary healing. Though harder to study, it seems to be frequently the case that extraordinary healing or remission at very least coincide with certain spiritual attitudes, events or shifts in the person. It remains to be seen whether spiritually mediated healing operates by even more powerful pathways than "normal" remission—though a preliminary examination of the evidence would seem to suggest that unusual pathways are involved in this kind of healing. Contacts have been established with the International Medical Bureau of Lourdes where cases of remission are routinely rejected as not

add to the remission data-base. Contacts are also being established with selected well-known spiritual healers to consider how their work might be examined in a scientific framework.

4) Bio-Energetic or Energy Medicine Approaches: A fourth area concerns the very recent new evidence on electromagnetic theories of the healing process which suggest that the *healing system* will also be found to contain important electrical and magnetic components.

Pioneering work in this area has been done by Becker, Bassett and Pilla on bone and tissue regeneration; by Nordenstrom on reversal of malignancies by electrical stimulation; by Adey, Bird and Beck on entrainment of brainwaves by weak magnetic and electrical fields; by Patterson on the stimulation of brain endorphins by small electrical currents. Recent work has shown that transcription of DNA can be manipulated by weak magnetic fields. This work is still in a preliminary state with much of the research cited in support of this new field coming from outside the United States.

At present, the field has a number of competing models, some of which are confused with esoteric models of the aura, etheric body and the like. Primary support for this work and the emerging field of neuromagnetism is coming from the military and intelligence communities; hence there is currently an emphasis on the military implications. The potentials of this research as a tool for the understanding and stimulation of healing therefore needs to be brought into focus by carefully chosen support. A conference with many of the major researchers from Europe is planned for November 1986 in Los Angeles.

In summary, the premise of the Inner Mechanisms Program suggesting that a natural self-repair or *healing system* exists seems to be borne out by the initial efforts of the Program. It is expected that the next year and a half will bring a significant increase in our knowledge and understanding of this unknown *healing system*.

"Two systems that are central to the proper functioning of a human being need to be emphasized: the healing system and the belief system. The healing system is the way the body mobilizes all its resources to combat disease. The belief system is often the activator of the healing system."

—Norman Cousins

Inner Mechanisms Program: Current Research Projects

To promote scientific understanding of the *healing system* the Inner Mechanisms Program has provided research funds to the following projects since 1984. In some cases the support has been partial and in others complete support for the project as a whole.

- **A Roundtable Discussion in Healing.**

A one-day meeting held at the Institute of Noetic Sciences, to provide an opportunity for researchers supported by the Institute to meet and exchange ideas with each other and with the Institute's Scientific Advisory Committee. Representatives of the foundation and venture capital communities observed the meeting.

- **Hypnotic Intervention in Immune Functions.**

Dr. Steven Locke, Harvard University. A project to demonstrate a link between the mind and immune system utilizing hypnotic intervention.

- **Behavioral and Cognitive Intervention with Cancer Patients.**

Dr. Sandra Levy, University of Pittsburg. A project assessing the

impact of behavioral and cognitive interventions on various measures of the immune system of patients with melanoma and colon cancer.

- **Links between Personality and Immunity.**

Dr. Dennis Kinney, McLean Hospital/Harvard. A project investigating the links between personality characteristics and the levels of natural killer cell activity in the immune system.

- **Multiple Personality Project —The PNI of Mind-Body Plasticity.**

Dr. Frank Putnam, NIMH, and Dr. Nick Hall. A project to determine whether there may be unusual pathways linking mind and immunity that may be discernible only in this special group of subjects. ▶

• **Psychological Intervention with Cancer Patients.**

Dr. Stephanie Simonton, University of Arkansas. A project assessing the effectiveness of the Simonton approach involving the use of imagery and relaxation practices to boost the immune system response of cancer patients.

• **Noetic Sciences Fellowship in Behavioral Medicine.**

Supervised by Dr. Ken Pelletier and Dr. Tom Coates, University of California School of Medicine, San Francisco. A two-year fellowship in Behavioral Medicine at UC Medical School in San Francisco, with part time donated to examining aspects of data on remission.

• **Search for Long Term Survivors of Cancer.**

Dr. Eva Glazer, Bay Area Tumor Registry. A computerized data base search and follow-up to identify persons with metastasized cancer who have survived for at least ten years past a terminal diagnosis.

• **Lourdes: Miraculous Healing.**

Margaret Livingston, Esalen Institute. A grant to secure records from Lourdes of the miraculous healings verified by the International Medical Commission at Lourdes, France.

• **Medjugorje: Miraculous Healing.**

Rev. Michael Koonsman, Friends of Mary, New York. A grant to investigate claims of miraculous healings associated with the appearance of apparitions of the Virgin Mary occurring in Medjugorje, Yugoslavia.

• **The Perennial Philosophy of Healing—Defining the Healing System.**

Dr. Michael Lerner, Commonweal. A paper tracing the history of ideas on healing, how cultures have evolved ideas about the conditions of healing and the elements of a perennial philosophy of healing.

Inner Mechanisms Program: Research Conferences

The Inner Mechanisms Program provided partial funding for all the conferences listed:

• **International Conferences on Multiple Personality and Dissociative States, First and Second Conferences.**

Rush Presbyterian Hospital and The American Society for Clinical Hypnosis. An international meeting of professionals to discuss diagnosis, therapy and research findings in the field.

• **How Might Positive Emotions Affect Physical Health.**

The Institute for the Advancement of Health, New York. A meeting of scientists from a variety of disciplines to discuss their answers to the question posed in the title.

• **The Inner Science Conference: A Working Conference with the Dalai Lama and Western Psychiatrists and Psychologists.**

Amherst College and the American Institute of Buddhist Studies. A meeting of invited psychologists and scholars to meet with the Dalai Lama to discuss the links between the Buddhist "inner science" and Western "outer science".

• **First International Workshop Meeting on Neuroimmunomodulation 1984.**

National Institutes of Health, Fundamental Neurosciences Division. A meeting of professionals to share concepts and research findings in this important new field linking the brain and the immune system.

• **Second International Workshop on Neuroimmunomodulation 1986.**

Dubrovnik, Yugoslavia. A meeting to further international communication in the field and to communicate results on recent research.

• **National Meeting of the Society for Behavioral Medicine.**

San Francisco 1986 International Society for Behavioral Medicine. A meeting of researchers interested in the links between mind and body.

• **Conference of Neurobiology and Psychoanalysis.**

Dr. Herbert Pardes, Columbia Presbyterian Hospital, New York. A conference of researchers in both areas to examine the newly emerging links between the study of unconscious processes and those models of the unconscious stemming from psychoanalytic theory.

• **National Meeting of Psychoneuroimmunology Researchers.**

Dr. Mark Landenslager, University of Colorado in Denver. A meeting of leading researchers which focused exclusively on research methodology and design questions for this emerging field.

• **International Society for Psycho-Oncology.**

Dr. Jimmie Holland, Sloan-Kettering Memorial Hospital, New York. A grant to assist in the formation of the International Society for Psycho-Oncology.

• **First International Congress of Bio-Energetic Medicine.**

The World Research Institute, Los Angeles. A meeting in the United States bringing together for the first time a number of leading figures in European research on electrical and magnetic approaches to biological function.

The Healing System in Action

The Remission Project

by Brendan O'Regan
and Caryle Hirshberg

The most dramatic kind of self-healing known is spontaneous remission. Though professionals argue about the precise meaning of the term and what should and should not be called a "spontaneous remission", an analysis of the world medical research literature on the subject indicates that while reports of remission are not commonplace, they certainly are far more prevalent than is generally recognized. It would appear therefore that a vital piece of the natural history of disease is missing. If certain kinds of people have the ability to overcome normally fatal illnesses, one would think this finding would be of major interest. However, the information on the subject has been scattered so widely throughout the world's medical journals that it has virtually been left out of consideration, viewed by most as "unresearchable".

The Institute's search of medical journals encompassed over 800 different journals in more than 15 languages. Many of the reports are almost apologetic in tone, as the clinician has to make a report that runs counter to popular belief.

Planned activities for this program include:

- Collection, analysis and publication of an annotated bibliography of medically reported cases of spontaneous remission.
- Development of an on-line interactive database on remission.
- Establishment of a National Registry of Remissions.

Collection and Organization of Remission Research References

Since there is no standard medical reference text for the field of remission research at present, the first phase of the Remission Project has involved the collection of research references from the world's medical literature. The only major previous study of the medical literature on remission was conducted by Everson and Cole in 1966. This volume entitled "Spontaneous Regression of Cancer" contained 176 cases of remission and was confined to cancer. It has now been out of print for several years, thus there is no easily available reference source for anyone—researcher or interested member of the public—to study this vital area of medical research.

Using the Lockheed "Dialog" electronic database system and other scientific literature searches, we estimate that there are over 9,000 references to the term spontaneous remission, though in many cases, the term may only appear in the key word descriptors. The Remission Project has collected approximately 2,000 references in hard copy on the subject of spontaneous remission to date. This information is organized and stored in the Institute's computer system as an electronic database, which also contains another 800 references, including abstracts of the articles and other standard bibliographic material. Although the majority of these references are in English, approximately 15 other languages are represented, including Japanese, French, Italian, Spanish, Portuguese, German, Hebrew, and Serbo-Croatian.

Analysis of Bibliographic Material

The data collected are now being organized by disease categories and organ systems to provide information on the kinds of diseases that are the most prone to remission. A list of the primary researchers is being collected as well. These scientists will be contacted to inform them of the Institute's interest and work in the area of remission, to solicit advice regarding the project, and to establish a network of researchers in the field of remission.

An International Conference on Remission Research

After contact has been established with the primary researchers in the field of remission research, the Institute of Noetic Sciences plans to invite these scientists to participate in an international working conference on remission. One outcome of this conference could be the establishment of an on-going forum on remission research as a new field in medicine.

Publication of an Annotated Bibliography on Spontaneous Remission

The Institute also plans to publish an annotated bibliography (including abstracts and case histories) of references to spontaneous remission. This will become the primary reference source on the topic since, as was mentioned earlier, the only other volume to be published on the topic, by Everson and Cole in 1966, is now out of print.

Interactive Database on Remission

The establishment of an interactive relational database on remission research is a long-term goal of the Remission Project. This could result in a public-access database whereby physicians and laypersons could request detailed information on specific disease categories and receive references to research articles in the database. The database would allow physicians and laypersons access to statistical information, research information, recent developments in the field, and clinical information on remission. The information in the database would be continuously updated both by accessing new articles on the subject from electronic database sources, and by input from physicians and researchers in the field. Ideally, case histories and on-going statistics will also be stored and accessed through such a network.

A National Remission Registry?

The science of epidemiology naturally keeps track of the incidence of diseases such as cancer. Accordingly, the National Cancer Institute operates the National Tumor Registry which operates throughout 11 centers around the US. Hospitals in the areas where the Tumor Registry operates routinely report the incidence of tumors to the registry. However, there is no Registry of Remissions.

The Institute of Noetic Sciences is currently providing funds to the California Tumor Registry to perform an initial search for long-term survivors of cancer in the San Francisco Bay Area. Initially, the Remission Registry may mirror the Bay Area Tumor Registry as a model to organize reporting of cases of remission. When properly organized this can then be expanded to the whole state of California as an initial model system for a National Registry. For the first time then, an initial glimpse at the epidemiology of remission may become possible.

Societal Transformation

Global Mind Change Program

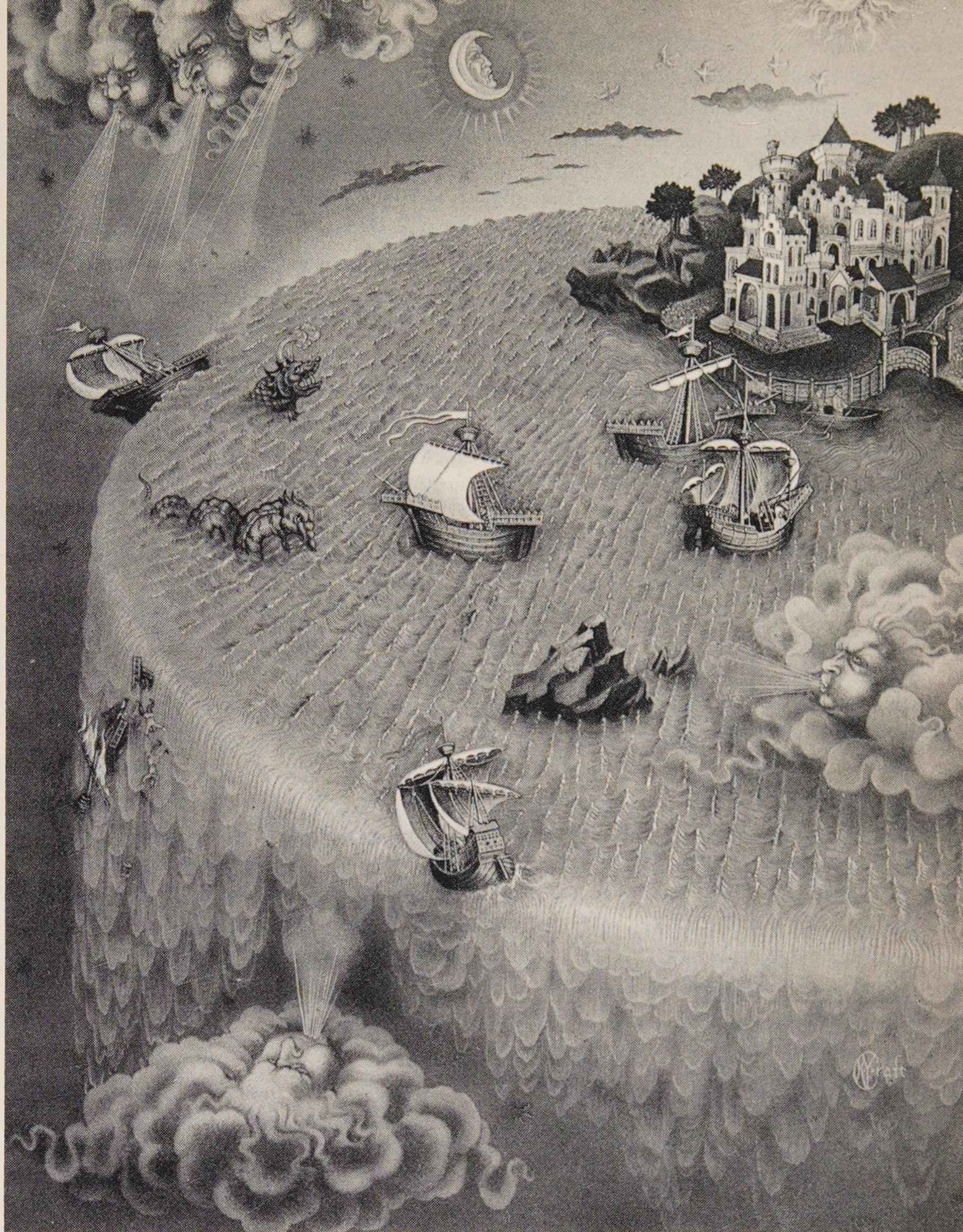
by Willis Harman
President

Many indicators point to a fundamental change of mind occurring around the world, pushed by a complex of interconnected global problems and pulled by an emerging vision of a positive global future. Although the full nature of this transformation is not yet apparent, it clearly involves reassessment of the scientific understanding of the human mind and spirit; of our ecological relationship to the planet; of the assurance of peace and common security; and of the positive role of business in creating a meaningful and viable future.

It would appear that the impetus for this transformation is a change of mind that is spreading quite rapidly (in historical terms), such that the countercultural trend of today is the mainstream of tomorrow. If so, no issue is more critical than that of having the change be as smooth and nondisruptive as possible. Most fundamental societal changes in the past have been accompanied by a great deal of bitter conflict and human misery. Thus the Institute is involved, in cooperation with numerous other organizations, in various aspects of helping to assure that this change may be a relatively smooth and nondisruptive metamorphosis.

The center of this cyclone of change has been described as a "new heresy". The scientific revolution, which most persons today would surely view as a constructive step, was in its day a scientific heresy. It was a challenge to the existing authority system (Scholasticism), and the substitution of another—the methods of empirical science. As such, it was profoundly disturbing to many people.

The scientific revolution occurred, not solely because the ideas of



Kinuko Y. Craft

Copernicus, Galileo, and others were so persuasive, but because the society of Western Europe in the early 17th century was so ripe for change. There were at the time a widening group of people who had begun to express publicly a very heretical thought: "Reality is not the way the religious authorities have been telling us." The end result was acceptance of a dramatically different way of testing and validating knowledge.

In very recent years a widening group of persons have been expressing a similarly heretical idea: "Reality is not the way the secular authorities have been telling us either." The prevailing behavioral science does not describe how people really feel and act, and the

prevailing concepts of economics imply a way of behavior that is in the end neither satisfying to the individual nor good for the planet. The positivism that prevailed in science a half century ago is giving way to some new paradigm that recognizes the reality of consciousness. And the reductionism that has characterized empirical science for well over three centuries is being replaced by new holistic and teleological concepts that make room for meaning and purpose. This new heresy is disturbing to many, as the scientific heresy was in its time. However, future generations will no doubt look back on it as a constructive step also.

The core activities of the Institute of Noetic Sciences—such as our current

explorations in exceptional abilities and in mind and healing—have to do with discovering and explicating the emerging knowledge and new conceptualizations of the human mind and spirit. But from its inception the Institute has also been concerned with the societal and global implications of these new insights. The initial brochure of the Institute (1973) observed: "The new problems: pollution, energy exploitation, overpopulation, shortage of food resources, waste of natural resources, irresponsible allocation of priorities in human development are all man-made... We have not yet come to grips with a true perspective of ourselves and our individual responsibility for the planet... [The Institute's] view of future science revolves around... better understanding of ourselves, why we do what we do and what our potential capabilities may be for the future."

The Institute's involvement with the environmental and ecological issues that threaten our planetary homeland is not so obvious as our involvement with matters of science, health, and education. However, we are in active collaboration with a number of organizations that address these issues more directly. The problems of the vanishing tropical rain forests, or pesticide and fertilizer runoff, or pollution and toxic chemical concentrations, or even man-made climate change, are not matters of lack of knowledge or willful destruction. They are matters of the underlying belief system that shapes and supports the economic and political systems which in

the end create these conditions. If we base our institutions and societies on a picture of reality that is incomplete or inaccurate, then they will not serve us well. That seems to be what has happened, especially with respect to the deeper meanings and important value commitments that guide human lives and shape societies.

One of the most critical areas of concern is the achievement of global peace. Our activities here include participating in an international project on world security alternatives; promoting a positive view of the achievability of sustainable global peace; arranging tours to the Soviet Union and other countries with opportunities for cross-cultural dialogues and "citizen diplomacy"; offering to members who wish to become more actively involved in securing global peace a Peace Packet containing a booklet by Willis Harman entitled *How to Think About Peace* (and feel empowered to do something about it); and a book about to be released written by Richard Smoke, Center for Foreign Policy Development, Brown University, with Willis Harman, reviewing historical peace efforts and suggesting a new approach involving global changes.

There are numerous reasons to think that the business community may turn out to be in the forefront as we all become more aware of the kinds of world system changes that are necessary. For one thing, it doesn't make sense to participate in the destruction of a world you hope to do business in. Also, many of society's most aware and competent people are attracted to business

organizations, and they are increasingly involved with awakening experiences in their own lives. Furthermore, the corporation is perhaps the most adaptable kind of organization ever invented; as the necessity for fundamental change is increasingly recognized, corporations can be expected to move very rapidly.

Thus the Institute has been especially interested in allying with networks of business people, especially in North America and northern Europe, who are raising issues about the future of work, the new economic agenda, and the new corporation. Willis Harman in particular has participated in numerous conferences and offered many workshops on the future of economics and business.

(One of his papers relating to these topics, available through the Institute's Catalog, is entitled "Creativity and Intuition in Business: The Unconscious Mind and Management Effectiveness".)

The full implications of the "global mind change" associated with emergence of a science that adequately treats the human mind and spirit are no more apparent than were the implications of the scientific heresy in the middle of the 17th century. We can be sure, however, that they will be no less profound. If indeed the "new heresy" involves changes in basic assumptions at the same deep level as the scientific heresy, it means that the world of the 21st century will be as different from ours as the modern world is from the Middle Ages. There is no sector of society, and no institution, that will not be affected. We have an interesting time ahead, to put it mildly.

Global Mind Change Program: Current Projects

- **Citizen Diplomacy Trips to the USSR.**

The US/USSR Citizen Initiative. As part of the travel program for IONS members, the Institute offers three-week trips to the USSR, with an emphasis on visiting ordinary citizens in their homes and establishing personal links.

- **Peace Packet.**

An internally managed project of the Institute of Noetic Sciences. A packet to help individuals find an appropriate role in the work of global peace including selected readings, a section on inner work (meditations, affirmations and journals), and another on outer work

(books, music and individual and group action opportunities); available from the Institute of Noetic Sciences.

- **Paths to Peace.**

Dr. Richard Smoke and Dr. Willis Harman. A book describing traditional approaches to establishing world peace, theory concerning the role individual beliefs and values play in peace efforts and more thoughts concerning new approaches to peace involving belief and value shifts (available January 1987).

- **Vision Project.**

Joan Steffey. Survey and production of a video tape on noetic business practices

to result in a video tape of the application of "noetic practices".

- **Home Planet.**

Kevin Kelley. A book to be published in 1988, as a photographic essay of space shots of the Earth interspersed with quotes from astronauts and cosmonauts, intended to dramatize the unity and preciousness of life on Earth.

- **Science and Spirit.**

David Tapper Productions. A planning effort to produce a television series exploring the relation between 20th century science and spirit

The Mind—Benign or Malign?

by Bernie S. Siegel, MD

Part of the mind's effect on health is direct and conscious. The extent to which we love ourselves determines whether we eat right, get enough sleep, smoke, wear seat belts, exercise, and so on. Each of these choices is a statement of how much we care about living. These decisions control about 90 percent of the factors that determine our state of health. The trouble is that most people's motivation to attend to these basics is deflected by attitudes hidden from everyday awareness. As a result, many of us have mixed intentions.

Consider, for example, Sara, a woman who came to me with breast cancer a few years ago; she was smoking when I walked into her hospital room. Her action clearly stated: "I want you to get rid of my cancer, but I'm ambivalent about living, so I think I'll risk a second cancer." She looked up sheepishly and said, "I suppose you're going to tell me to stop smoking."

"No," I said, "I'm going to tell you to love yourself. Then you'll stop."

She thought for a moment and replied, "Well, I do love myself. I just don't adore myself." (Sara ultimately did come to adore herself—and stopped smoking.)

It was a good quip, but it exemplified an important problem many people have with themselves. Self-love has come to mean only vanity and narcissism. The pride of being and the determination to care for our own needs have gone out of the meaning. Nevertheless, an unreserved, positive self-adoration remains the essence of health, the most important asset a patient must gain to become exceptional. Self-esteem and self-love are not sinful. They make living a joy instead of a chore.

The mind does not act only through our conscious choices, however. Many of its effects are achieved directly on the body's tissues, without any awareness on our part. Consider some of our com-

mon expressions: He's a pain in the neck/ass. Get off my back. This problem is eating me up alive. You're breaking my heart. The body responds to the mind's messages, whether conscious or unconscious. In general, these may be either "live" or "die" messages. I am convinced we not only have survival mechanisms, such as the fight-or-flight response, but also a "die" mechanism that actively stops our defenses, slowing the body's functions and bringing us toward death when we feel our life is not worth living.

The Physiology of Immunity

Every tissue and organ in the body is controlled by a complex interaction among chemicals circulating in the bloodstream, the hormones secreted by our endocrine glands. This mixture is controlled by the "master gland", the pituitary gland, located in the middle of the head just below the brain. The output of pituitary hormones in turn is controlled by both chemical secretions and nerve impulses from the neighboring part of the brain, called the hypothalamus. This tiny region regulates most of the body's unconscious maintenance processes, such as heartbeat, breathing, blood pressure, temperature, and so forth.

Nerve fibers enter the hypothalamus from nearly all other regions of the brain, so that intellectual and emotional processes occurring elsewhere in the brain affect the body. For example, about five years ago, child-development researchers discovered "psychosocial-dwarfism", a disturbingly common syndrome in which an unhealthy emotional atmosphere at home stunts a child's physical growth. When a child is caught in a crossfire of hostility and feels rejected by his or her parents, thereby growing up with little self-esteem, the brain's emotional center, or limbic system, acts upon the nearby

hypothalamus to shut off the pituitary gland's production of growth hormone.

The immune system consists of more than a dozen different types of white blood cells concentrated in the spleen, thymus gland, and lymph nodes, and patrolling the entire body through the blood and lymphatic systems. They are divided into two main types. One group, called B cells, produces chemicals that neutralize poisons made by disease organisms while helping the body mobilize its own defenses. The other group, called T cells, consists of killer cells and their helpers, which destroy invading bacteria and viruses.

Recent research has shown heretofore unknown nerves connecting the thymus and spleen directly to the hypothalamus. Other work has proven that white blood cells respond directly to some of the same chemicals that carry messages from one nerve cell to another.

This anatomical evidence for direct control of the immune system by the brain has been confirmed in studies of animals. Two groups of scientists have independently used Pavlovian conditioning techniques to change the immune response. At the University of Rochester Medical Center, psychiatrist Robert Ader and immunologist Nicholas Cohen repeatedly gave rats saccharin-sweetened water along with an immune-suppressant drug. Later they were able to "trick" the animals into suppressing their own immune responses by giving them the sweetened water alone. Working for the National Institutes of Health, Dr. Novera Herbert Spector similarly conditioned mice to *increase* their immune responses when exposed to the smell of camphor.

The immune system, then, is controlled by the brain either indirectly through hormones in the bloodstream, or directly through the nerves and neurochemicals. One of the most widely accepted explanations of cancer,

the "surveillance" theory, states that cancer cells are developing in our bodies all the time but are normally destroyed by white blood cells before they can develop into dangerous tumors. Cancer appears when the immune system becomes suppressed and can no longer deal with this routine threat. It follows that whatever upsets the brain's control of the immune system will foster malignancy.

This disruption occurs primarily by means of the chronic stress syndrome first described by Hans Selye in 1936. The mixture of hormones released by the adrenal glands as part of the fight-or-flight response suppresses the immune system. This was all right in dealing with the occasional threats our ancestors faced from wild beasts. However, when the tension and anxiety of modern life keep the stress response "on" continually, the hormones lower our resistance to disease, even withering away the lymph nodes. Moreover, there is now experimental evidence that "passive emotions", such as grief, feelings of failure, and suppression of anger produce over-secretion of these same hormones, which suppress the immune system.

State of Mind / State of Body

We don't yet understand all the ways in which brain chemicals are related to emotions and thoughts, but the salient point is that our state of mind has an immediate and direct effect on our state of body. We can change the body by dealing with how we feel. If we ignore our despair, the body receives a "die" message. If we deal with our pain and seek help, then the message is "Living is difficult but desirable", and the immune system works to keep us alive.

I therefore use two major tools to change the body—emotions and imagery. These are the two ways we can get our minds and bodies to communicate with each other. Our emotions and words let the body know what we expect of it, and by visualizing certain changes we can help the body bring them about. Both emotions and imagery are obviously transmitted through the central nervous system and may relate to work that Robert Becker, an orthopedic surgeon and researcher, has done.

Becker has studied the body's electrical systems. His work led directly to the use of electricity to heal broken bones that have failed to knit. Becker found that hypnotized patients can produce voltage changes in specific areas of the body on command. If these voltages control the chemical and cellular processes of healing, as Becker believes, then we soon may have a scientific explanation for hypnosis cures and the placebo effect. It is well known, for example, that hypnotized patients can

Emotions and imagery are tools to get our minds and bodies to communicate with each other.

cure their own warts (which are caused by viruses). As Lewis Thomas wrote in *The Medusa and the Snail*:

"You can't sit there under hypnosis, taking suggestions in and having them acted on with such accuracy and precision, without assuming the existence of something very like a controller. It wouldn't do to fob off the whole intricate business on lower centers without sending along a quite detailed set of specifications, way over my head.

"Some intelligence or other knows how to get rid of warts, and this is a disquieting thought.

"It is also a wonderful problem, in need of solving. Just think what we would know, if we had anything like a

clear understanding of what goes on when a wart is hypnotized away...we would be finding out about a kind of superintelligence that exists in each of us, infinitely smarter and possessed of technical know-how far beyond our present understanding. It would be worth a War on Warts, a Conquest of Warts, a National Institute of Warts and all."

Bioelectricity may someday enable us to reach this "controller" directly, to understand exactly how and why tumors sometimes regress when patients are convinced that an unorthodox treatment—hypnosis, diet, prayer, meditation—is going to work. As Becker once wrote to me, "the placebo effect is not only real but of great importance, and your methods may be far more effective than you think they are".

Whether or not we can ever control all healing with electrical stimuli, exceptional patients—that is, potentially all patients—need not wait helplessly for artificial aids. They can learn to heal themselves and stay well. If I can teach you how to feel good about your life, love yourself and others, and achieve peace of mind, the necessary changes can occur. My loving and hugging may look silly on the ward, but they're scientific. The problem is that we don't yet know the psychological techniques necessary to turn on the healing process quickly and efficiently in everyone. So many of the changes happen at an unconscious level that they are hard to measure clinically without careful psychological testing. One day I hope we can prescribe something like "one hug every three hours" instead of a drug or electrical impulse, but for the moment we must return to our consideration of the mind's potential for harm, as a prelude to finding its antidote.

From Love, Medicine, and Miracles by Bernie S. Siegel; © 1986 by Bernie S. Siegel; used with permission by Harper and Row Publishers, San Francisco. Available to members for \$13.55 (regular price \$15.95) through the Institute ordering service; please add \$1.50 handling and postage, and 6% tax for Californians.

Bernie Siegel practices surgery in New Haven and teaches at Yale University.

The Search for Unity

by Renée Weber

Dr. Renée Weber is Professor of Philosophy at Rutgers University. A former editor of ReVision Journal, she has had her work included in eight anthologies, including The Metaphors of Consciousness, The Holographic Paradigm and Other Paradoxes, and David Bohm: Quantum Physics and Beyond. She is author of Dialogues with Scientists and Sages: The Search for Unity—from which the following is excerpted.



They have tried to talk me out of it repeatedly and over many years and from both sides of the spectrum—scientists and mystics—but it will not take root. At times my mind—trained for years in the rigors of philosophy—is nearly convinced, won over by some argument whose validity I cannot help but grant at the moment. But after a while this leaks off again because it does not go deep enough, does not touch the core of me which stubbornly holds out for *that*. Sometimes, listening to my colleagues talking about philosophy in the measured and modest style which has become the official way of doing American philosophy—taking on small problems that lend themselves to solution—I realize that I am a maverick, for I can settle for nothing less than the whole. It is a feeling deep in my bones and blood. It has been there since my childhood and has accompanied me through all the years of education at elite universities, where it stayed underground for the sake of prudence. But it only went into hiding. It is still there and has been in the background all along, the scale against which every particular truth I have met with is weighed.

It is the sense of the unity of things: man and nature, consciousness and matter, inner and outer, subject and object—the sense that these can be reconciled. I have never really accepted their separation and my life—personal and professional—has been spent exploring their unity in a spiritual odyssey.

I have finally come to ask these scientists and sages themselves. The question that continues to preoccupy me will perhaps be answered here, for these are the people whose work is

at the center of the search for reality. Talking to the more conventional scientists and religious figures has proven to be a dead-end; they are not synthesizers and thus do not understand my question. They suspect it is the result of confusion about the nature of science or the nature of mysticism. As for philosophy itself, it has long ago given up such pursuits as hopeless, leading neither to a philosophical nor to a professional "pay-off"—a poor investment of one's time. Nevertheless, it is what matters most to me. I have struggled to balance the productivity and integrity of the scholar with the search for wholeness. It is a priority with which nothing else can compete. To explain this to others borders on spiritual autobiography, which I have resolved to keep to a minimum.

The fact, nevertheless, is that my odyssey takes me from one end of America to the other, three times to Europe, and finally to Asia, southward into India and northward into Nepal. I carry my search to Bohm and Krishnamurti amidst the orange groves of California; to Fr. Bede Griffiths at his Christian ashram in the parched Indian countryside; to the halls of Cambridge University and its leading astrophysicist, Stephen Hawking; to Nobel laureate Ilya Prigogine in the bustle of New York City; to the Dalai Lama's peaceful monastery in Switzerland and an alpine retreat and renewed meeting with Krishnamurti; to more ordinary settings like Princeton, Westchester County, Syracuse, and London, where I converse with Sheldrake, Lama Govinda, and Bohm on various occasions. . . .

Editor's Note: A group of fifty scientists, theologians and media consultants, meeting in New York City last October, sat spellbound as Renée Weber told of her journey across three continents, tracking scientists and mystics willing to share their personal views concerning matter, energy, meaning and purpose.

This invited group of fifty had been convened for one day by David Tapper of Tapper Productions, the Institute of Noetic Sciences, the United Church of Christ (a major Protestant denomination) The American Jewish Committee (known for its interfaith work), and The Christophers (a Catholic broadcasting group). Our assignment was to explore the relationships between theological issues and recent developments in science, identifying themes that would constitute "good science, good theology and good television". Tapper is intent on

producing a high quality television series on "science and spirit", and had enlisted the Institute's conceptual support for his initial planning.

Renée Weber had not spoken till toward the end of the day. So many differing opinions had already been expressed that it was easy to wonder where any of the day's efforts might lead. As she spoke, though, it became clear that there is indeed a fascinating and wonderful story to be told—one of mystery, awe, beauty and inspiration. The excerpts here, from Weber's recently released book, Dialogues with Scientists and Sages: The Search for Unity, capture the essence of what she communicated that day.

The book itself is more than a collection of questions and answers, for the interviews and commentary grow out of her personal experience and reflect the depth of that quest.

Parallels Between Science / Mysticism

Despite the analogies I have drawn thus far, the differences between science and mysticism seem to outweigh the similarities, so why can I not rest content with their separation? This question of the parallels or lack of them in science and mysticism has generated considerable debate in a remarkable and growing literature. In spite of my appreciation of the many solid arguments offered by those who deny any similarities between science and mysticism, my position has not really been changed by the arguments. If I did not see a connection between science and mysticism, there would have been no need for this book. The connection I perceive is this: A parallel principle drives both science and mysticism—the assumption that unity lies at the heart of our world and that it can be discovered and experienced by man.

I believe that this one similarity is so powerful that it transcends the many differences which divide science and mysticism.

The commitment to simplicity and unity in science is especially striking since a comprehensive unity is not necessary for prediction and control,

which are the stated and utilitarian aims of most scientists. These aims could as well be achieved without the "simplicity", "elegance" and "beauty" for which the greatest scientists strive.

Obvious examples of this commitment are Newton's grand schema unifying all masses in the universe through his Law of Gravitation, Maxwell's unification of magnetism and electricity, Einstein's unification of matter and energy, and of space and time. His intuition about this was so strong that Einstein pursued the Unified Field Theory to the end of his life, though it tragically eluded him. Now scientists are working to unite into one force the present four known basic laws of nature—gravitation, electromagnetism, and the strong and weak nuclear forces within the atom. A single comprehensive law remains the current ideal.

The drive of scientists to achieve this ideal cannot be "scientific" in the conventional sense. It seems closer to an aesthetic demand, the sense that unity is somehow truer, more beautiful and better than multiplicity. The scientific drive seems to me to border on Plato's vision that the good, the true, and the beautiful are the fabric of reality. Such terms as "elegance" and "beauty" recur

regularly in philosophical scientists like Einstein, Heisenberg, Eddington, Jeans, Schroedinger, Bohr, Feynman, Wald, Bohm, Prigogine, Hawking, Sheldrake and others. Behind the aesthetics demand, I believe, lies a spiritual one.

But is the search for unity in science itself a spiritual path? My hypothesis is that it is.

Behind the intellectual drive of the great creators in science, a deeper force seems at work. I believe that at some intuitive level of his awareness, the scientist senses that nature is simple, subtle, interconnected, and one. Without this idea or something like it, it is difficult to account for the way scientific genius operates. Why should one equation expressing nature's workings be truer and better than four, three, or two? The drive to unveil this inner structure and to express it in the beautiful and elegant language of mathematics seems similar to the mystic's insistence that behind the multiplicity of appearances there lies the unity of reality.

Sheldrake and Bohm readily assent to this interpretation of their work. However, few other scientists will admit to it. Comparison with the mystic is offensive to them, and they strenuously deny any similarity between their vision

and that of the mystic. This is particularly true of Prigogine and Hawking, to whom such comparisons actually appear odious. One can speculate about the reasons for many scientists' hostility to mysticism. As these dialogues make clear, it is not a hostility modern mystics (with the possible exception of Krishnamurti) seem to share. Most of them easily accommodate and even embrace scientific cosmology as an alternative glimpse into things or, as the Dalai Lama, Fr. Bede Griffiths, and Lama Govinda suggest, as a move towards balance.

But most scientists want to dissociate themselves from mysticism, and this may have a historical basis. The scientist perceives himself as the defender of truth against superstition, and may remember the hold that *religion* had over science before it shook off theological authority, a hold that cost people like Giordano Bruno his life and Galileo his freedom. The confusion between mysticism and religion is an easy one. The irony is that the mystic, no less than the scientist, often suffered at the hands of institutionalized religion, and was in many cases hounded and endangered—Bruno and Eckhart are memorable examples—for his vision of unity.

Form and Content

Two important issues arise in comparing science and mysticism: their content and their form. The form concerns theory-formation, the question: when is a theory complete? For mainstream scientists, a theory is complete when all its equations add up consistently, give a full description of the phenomena, and allow it to make observable predictions. But for scientists like Bohm a theory is complete only if—in addition—it integrates the observer and the observed, subtle matter and dense matter, and both of these with their source—i.e., if the theory is comprehensive. Lastly, for the mystic no theory can be either complete or comprehensive because it imposes boundaries on the unbounded.

But, of course, it is the similarity of their content that is the most interesting question of all. How alike are science and mysticism in this? That is the question I have travelled to three continents to ask of the figures in this book. All

scientists postulate the unity of matter at an initial point before the Big Bang, when everything in the universe was in contact—condensed and united into one infinitesimally small point—the singularity. The search for "the singularity" before time was born is linked with the search for who we are, common to both science and mysticism. Stephen Hawking makes this link explicit in our dialogue. When I ask him why he is

*Many
mathematicians
of the highest
rank . . . take
a somewhat
mystical
attitude toward
the source
of their
perceptions in
mathematics.*

—David Bohm

interested in the "early universe", he tells me that we all want to know where we come from, and that whatever happened in the first second after the Big Bang holds the answer to that question. In that sense, his quest and my own are alike.

It differs in one fundamental respect. Along with the mystical tradition, I want to push this puzzle of my origin back one step further. The difference between Hawking (I use him as a symbol of the non-mystical scientist) and myself on this issue is one of degree. I have asked many scientists "Where did

the singularity that became the Big Bang come from?" "What happened before the Big Bang?" "What lies beyond the edge of the universe?" and—most important—"What started it all, and why?" Science cannot answer. Mysticism at least points to a direction.

It forms part of a theory known for millennia and presumably verified by the mystic's experience. This theory proposes that the universe originates in consciousness. Subtle matter gives birth to and governs dense matter, but all matter forms a continuum. The subtler the matter, the closer it gets to what we call consciousness. At its most subtle and inward point (if there is such an end point) matter and consciousness become indistinguishable. This is the doctrine of the ancient wisdom traditions.

Finally, neither matter nor consciousness are ultimate. Both have their source in something beyond themselves of which they are the outcome and expression, in which they are rooted and reconciled. This unknown reality cannot become an object of knowledge. My quest here hits bed-rock. There is nothing more to say of it. There is only silence, as Eckhart—and, for that matter, even Wittgenstein—knew.

But subtle matter and n-dimensional space can be approached through non-ordinary states of consciousness. A traditional meditation in Tibetan Buddhism enables the meditator to experience the unity of space, matter, and consciousness. The tool for this practice is light, an energy whose material and spiritual role is repeatedly debated in these dialogues. In the Tibetan practice, the meditator visualizes a beam of light slender as a single strand of hair, deep within the center of himself. Gradually he widens its magnitude to the breadth of one finger, one hand, and finally extends it to his whole body, which he now visualizes enveloped in light. Thereafter he projects the light-energy outward into the surrounding space until this sea of light extends into the infinite sea of space. Inner and outer space, self and nature, consciousness and matter have lost their distinction. In the Buddhist tradition, this is no mere epistemological exercise but a method for radiating the energy of compassion to all corners of the cosmos. ▶

Dr. David Bohm is considered one of the world's foremost theoretical physicists and one of the most influential theorists of the "emerging paradigm". His Causality and Chance in Modern Physics (1957) has become a classic in the field of quantum mechanics and is widely used at universities, as are his books on quantum theory and relativity. He is Professor Emeritus at Birkbeck College of the University of London.



Renée Weber Interviews David Bohm

excerpted from Dialogues With Scientists and Sages . . .

Weber: Unlike some people who question the validity of mapping physics onto the mysticism of the ancient wisdom traditions, you do not question it, if it is properly done.

Bohm: What kind of mapping?

Weber: For example, what Capra tried in *The Tao of Physics*. Ken Wilber, in *Quantum Questions*, criticizes this approach and all similar attempts as invalid. By implication, your own work is open to the same attack.

Bohm: Part of this ancient alliance between science and theology at the time of Newton was to make matter as "materialistic" as possible, as we said earlier, to emphasize the transcendence of God. There is sort of a trace of that in Wilber.

Weber: Wilber says that matter is at the lowest level of the hierarchical universe which he identifies with the great Chain of Being. The upper levels contain the lower levels but not vice versa. People who try to ignore that, Wilber argues, are guilty of a kind of reductionism.

Bohm: In the view I'm presenting nothing is being reduced. Pure idealism would reduce matter to an aspect of mind. Hegel was an example of that. Pure materialism attempts to reduce mind to an aspect of matter, and of course that's what we see in a great deal of modern science. My view does not attempt to reduce one to the other any more than one would reduce form to content.

Weber: Spinoza says for every aspect of matter there is a concomitant aspect of consciousness, and vice versa. Do you accept that?

Bohm: They're interwoven. They're correlative categories of reality, always woven together just as form and content are woven together. Every content is a form and every form is at the same time a content. Another way of saying that is that everything material is also mental and everything mental is also material, but there are many more infinitely subtle levels of matter than we are aware of.

Weber: Or that we ever could be aware of?

Bohm: Yes. We could think of the mystic as coming in contact with tremendous depths of the subtlety of matter or of mind, whatever we want to call it.

Weber: A depth where the distinction no longer applies?

Bohm: Yes. Rather than use the word "contact", we can say the mystic enters into it.

Weber: Plato says "to behold the form and enter into union with it."

Bohm: Yes. If you don't distinguish mind and matter then it becomes conceivable that you can enter into it. If you believe that matter is purely material, then how are you going to enter into it? Or if you think of it as purely mental then we have to think of it as some far away thing and some mysterious leap is required. But what if one supposes that actually it's not far away at all.

Weber: The Upanishads calls it "nearer than the nearest".

Bohm: Yes. But then we have to maintain that this distinction is like form and content and that ordinary thought makes too much of it; it makes it too rigid and sharp.

Weber: Let's use your vocabulary. How do you "enter into" it?

Bohm: The mystic wants to do it. The pure mathematician thinks tacitly that he is doing it, that he's entering into a source of truth.

Weber: Is it pure thought contemplating pure thought?

Bohm: Yes, but he feels that there is a source of truth behind that. Many mathematicians feel that it's a perception of truth beyond what can be expressed.

Weber: And that in understanding the mathematics they're in touch with the thing behind it.

Bohm: Yes.

Weber: How the mystic does it is of course hard to explain. But we've been discussing subtle matter, and it makes one think of Meister Eckhart, perhaps the greatest mystic the West has produced. He said, "To find nature herself, all her forms must be shattered."

Bohm: Well, any form which appears in nature is relatively exterior. The question is, what underlies it?

Weber: Isn't that what the mystic is after? He tries to get to the most universal level possible and to strip away delimitation and particularity.

Bohm: Yes. To get to something more and more general within consciousness, less and less restricted, leading to the universal. . . .

A Summary . . .

All mystics seek the depths, as do the greatest creative minds in science—and implicitly, perhaps, all scientists do. For both scientists and mystics unity remains the ideal. For both, matter is a mystery: it is more than "mere matter", the billiard balls of eighteenth- and nineteenth-century physics. Both scientist and sage are transformers of energy, involved in the dance of Shiva. The scientist makes the dense matter dance to produce pure energy, the mystic—master of subtle matter—dances the dance of himself.

In emphasizing the greater wholeness of mysticism, I do not devalue science. It is an endeavor whose value and power are enormous. Along with scientists, I feel that its autonomy must not be jeopardized and would defend it from regression to the days when it was bound and gagged by religion. For me, both science and mysticism are unique and irreplaceable perspectives on reality. I cannot do without either of them.

In the quantum and post-quantum era science and mysticism, the long separated siblings, seem to be drawing closer together. Consider what has happened to the concept of time, for example. Time is crucial to both science and mysticism. The mystic's denial of time's reality has always troubled those who live in ordinary clock-time. Yet in seeking to understand the Big Bang, science draws close to the mystic's paradox. In pushing back the universe to its first moment, does science seek the beginning of time or does it seek the timeless? If science finds its Grand Unified Theory will it have to contend with the question of the source of that, too, or will it have come upon the ultimate source of things? Through these and similar problems created by relativity and quantum physics, the line between science and mysticism has grown thin, and each of the scientists in this volume seems to respond to this line in different ways.

Reflecting on the progress of science, I come upon a surprising conclusion, faintly reminiscent of a Zen koan. As science unravels more and more of the puzzles, the mystery of nature does not diminish but deepens. This is as illogical as it is unexpected. The more sci-

ence learns, the greater nature's mystery grows. By contrast with the positivist scientists, who settle for prediction and control and for whom the ability to quantify nature's phenomena lessens the enigma, for the mystical scientists this is not the case. Increasing their knowledge of nature's laws paradoxically preserves and even deepens the sense of mystery. Although the mystery of the details gives way before science's scrutiny, the overall mystery does not seem to yield to it. Niels Bohr observed that "Those who are not shocked when they first come across quantum theory cannot possibly have understood it." Still, it may be too much to expect that science,

For both scientists and mystics matter is a mystery

even in the character of its most visionary practitioners, can go all the way to the mystic's cosmic "oneness". Perhaps science can at best take us to some rim, and from there we must make a further leap by ourselves.

One of these is the leap into ethics. The awareness of the unity and interconnectedness of all being leads—if it is consistent—to an empathy with others. It expresses itself as reverence for life, compassion, a sense of the brotherhood of suffering humanity, and the commitment to heal our wounded earth and its peoples. All the mystics (and virtually all the scientists) in these dialogues draw this connection between their vision of the whole and their sense of responsibility for it.

Einstein writes, "I maintain that the cosmic religious feeling is the strongest

and noblest motive for scientific research" and hereby interfuses the sacred and the secular, just as Eckhart does when he writes, "If the soul could have known God without the world, the world would never have been created." This shows that certain spirits do bridge the gap created between the known and the mystery that remains unknown.

My journey has led me—through this lattice-work of world-lines that began with the Big Bang—to the scientists and sages who are at the center of the dialogue with the cosmos. In these pages they take a stand—at times factual and sober, at times speculative and intuitive—on the question that informs this book—the possibility of a synthesis between two modes of approaching the universe. How do the insights of my partners in dialogue fit into my quest for a bridge between science and mysticism?

One suggestion comes from David Bohm, who proposes that meaning is a form of being. In the very act of interpreting the universe, we are creating the universe. Through our meanings we change nature's being. Man's meaning-making capacity turns him into nature's partner, a participant in shaping her evolution. The word does not merely reflect the world, it also creates the world. This is the deeper message of Prigogine's work. Bohm goes even further. In one of our sessions, he suggests that what the cosmos is doing as we dialogue is to change its idea of itself. Our doubts and our questions, our small truths and large ones are all forms of its drive toward clarity and truth. Through us, the universe questions itself and tries out various answers on itself in an effort—parallel to our own—to decipher its own being.

This, as I reflect on it, is awesome. It assigns a role to man that was once reserved for the gods.

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Myth as the Soul of the World

A Review-Essay

by Keith Thompson

"Curious thing to devote your life to myth," the radio interviewer says to Joseph Campbell. "Myth is a lie."

"No, myth isn't a lie," Campbell responds. "Myth is metaphoric. Mythology is an organization of symbolic images and narratives that are metaphoric of the possibilities of human experience and fulfillment at a given time."

The interviewer is having none of it. "I'll say it again: myth is a lie."

This guy doesn't know what a metaphor is, Campbell realizes. "Give me an example of a metaphor," he challenges. With five minutes remaining in the program, the interviewer tries to change the subject; Campbell won't allow it. The interviewer offers this: "So and so runs very fast. People say he runs like a deer."

"That's not a metaphor," Campbell responds, not missing a beat. "The metaphor is, 'So and so is a deer'." The announcer says, "That's a lie." Campbell says, "That's a metaphor."

This is one of Joseph Campbell's favorite stories, if judging only from the number of times he's told it to audiences in the past three years. The tale is relevant to a discussion of Campbell's latest book because it *occasioned* the book. Campbell set out to write what began as a brief essay and developed into an impassioned and often eloquent apology—apology not in the sense of a plea for forgiveness but the original Greek sense of a defense against accusations or aspersions. In *The Inner Reaches of Outer Space*, he wrestles again, and more formidably than ever, with the nemesis he has been confronting since writing *The Hero with a Thousand Faces* nearly forty years ago, namely, that myths are synonymous with lies.

The Inner Reaches of Outer Space consists in a rearticulation of certain themes addressed by the author throughout his prolific writings concerning the relationship between cross-cultural mythology and depth psychology (that view of human nature and psyche developed from the work of C. G. Jung). The book affirms the radical (and, he believes, essential) transformation of human experience and

vision through which mythology—indeed, the soul itself—transcends the narrow strictures of the tribe-centered worldview and moves toward, in Campbell's words, "a realization of transcendence, infinity, and abundance."

The author begins by distinguishing between (1) universal "elementary ideas" (such as "the Creation of the World" as an awesome, cataclysmic, and historical event serving as the central "organizing truth" in a given mythology or religion), and (2) "ethnic" or "folk ideas", understood as the differing local instances of these universals (such as the particular, culture-bound details of various Creation accounts among the world's peoples). It is the interplay between the universal, recurring nature of the elementary motifs and their specific, localized expression in cultures throughout the world that most interests Campbell.

Following Jung, he equates the recurring elementary motifs of mythology with archetypes of the collective unconscious. This strategic move leads to an analogy crucial to the life work of both men: as dream imagery is a metaphor of the

psychology of the dreamer, so mythology is a metaphor of the psychological posture of its culture.

Each such psychological posture has a corresponding sociological structure. And every material expression of this structure—its tools, weapons, art, ritual forms, social regulations and musical instruments—at once expresses and symbolizes the psychological structure that informs it. Furthermore, one can understand the spiritual orientation of a particular sociological structure by studying the metaphors of its mythology; and as we have just seen, this very same collection of metaphors or psychological posture shapes the material aspects of its structure.

Campbell's thinking here parallels the belief of many religious scholars and mystics that a spiritual integration of matter, life and mind is possible because spirit is inherently involved in matter, and apparent nature is hidden divinity. (As the Indian philosopher Sri Aurobindo writes in *The Life Divine*, "A complete involution of all that the Spirit is and its evolutionary self-unfolding are the double term of our material existence.")

The Great Civilizations of History

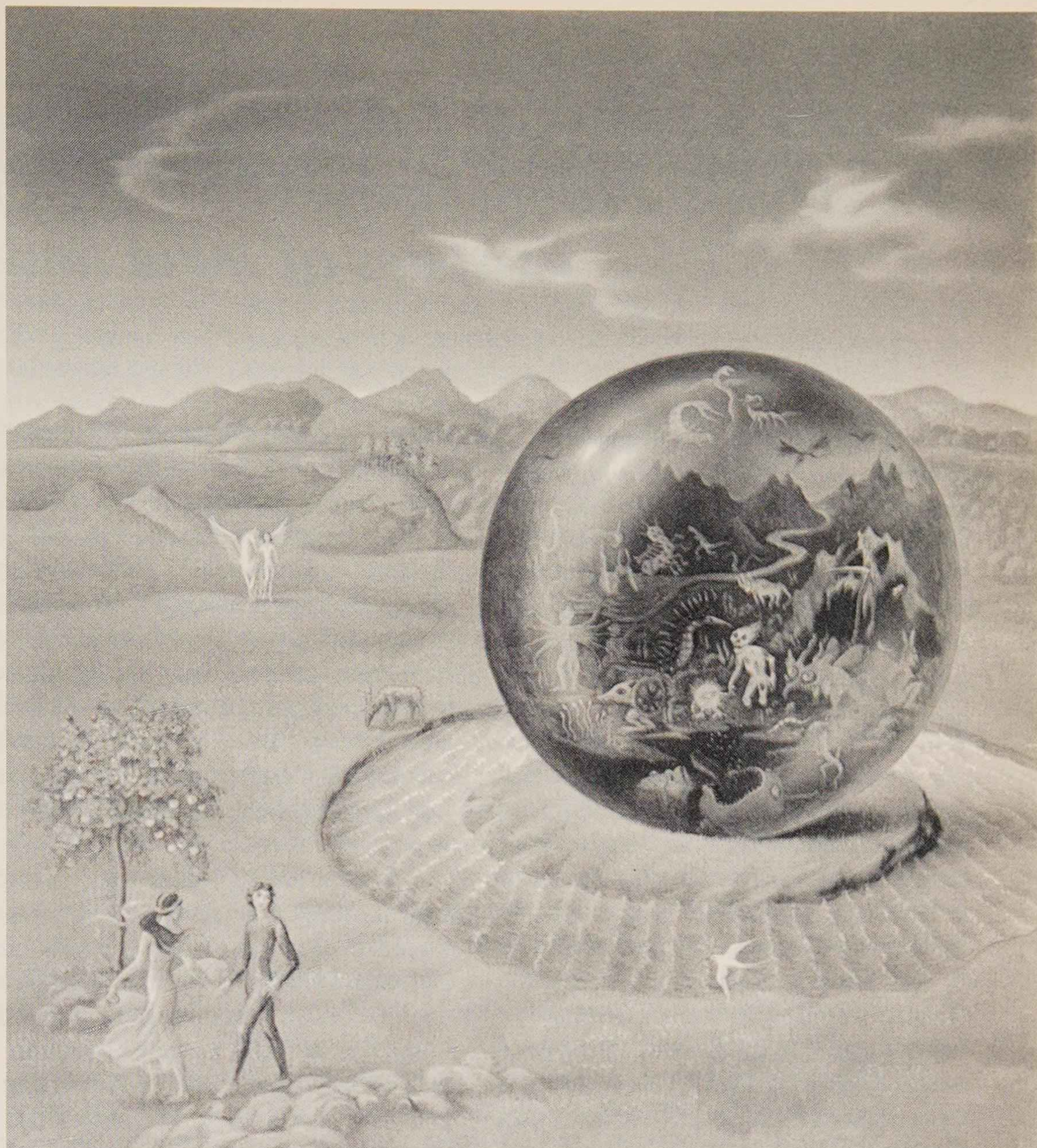
Following historian Leo Frobenius, Campbell adopts the term "monad" to refer to such sociological-psychological structures. As examples of monads or great structures that have shaped and dominated world history, Campbell lists eight identified by Oswald Spengler: (1) the Sumerio-Babylonian, (2) the Egyptian, (3) the Greco-Roman, (4) the Vedic-Aryan, (5) the Chinese, (6) the Maya-Aztec/Incan, (7) the Magian (Persian-Arabian, Judeo-Christian-Islamic), (8) the Faustian (Gothic-Christian to modern European-American), and then designates a ninth monad of his own: the germinating Russian-Christian, evident "beneath the imposed alien crust of a Marxian cultural pseudo-morphosis." By naming as monads these nine civilizations—widely considered by cultural historians to be the great civilizations of history—we get a sense of the sheer *scale* of Campbell's argument.

What these literate high cultures share with one another (and with the non-literate, aboriginal societies that preceded them) is this: ethnic or folk ideas in each form a unique set of metaphors, beliefs and practices that relate both to the *localized*, current needs and interests of that particular culture as well as to the *enduring* universal primal energies and urges of the human species in general. It is the universal "bioenergies" that are "the essence of life itself".

What are these bioenergies? The first, most basic and, in Campbell's view, most terrifying "is the innocent voraciousness of life which feeds on lives", as evidenced even in the infant feeding on its mother. The second elementary compulsion is "the sexual, generative urge, which during the years of passage out of infancy comes to knowledge with such urgency that in its seasons it overleaps the claims even of the first." The third is the "apparently irresistible impulse to plunder".

The Tribal Suppression of Mercy

This is where Campbell begins to pick up steam. A given civilization/monad (for discussion purposes, choose one from the preceding list of nine) has a large investment, conscious as well as



Kinuko Y. Craft

unconscious, in seeing to it that the first and third urges are developed and that the natural impulse to mercy is suppressed. Why? Mercy, empathy, and compassion are "not tribal- or species-oriented, but open to the appeal of the whole range of living beings", and thereby fall outside of the jurisdiction of "the elders, prophets, and established priesthoods of tribal or institutionally oriented mythological systems". It is in the interest of these tribal leaders "to limit and define the permitted field of the expression of this expansive faculty of the heart, holding it to a fixed focus" within the tribe, while deliberately directing outward "every impulse to violence".

A central tenet of Campbell's apology—perhaps *the* central tenet—is this: whereas the way of *the mystic and of art* involves "recognizing *through* the metaphors an epiphany beyond words",

the social function of a mythology "is not to open the mind, but to enclose it: to bind a local people together in mutual support by offering images that awaken the heart to recognitions of commonality, without allowing these to escape the monadic compound."

The way out of this monadic force-field, Campbell argues, is the way into the heart. Psychological projections must be withdrawn from *other* and understood as disowned aspects of *self*, including the social and cultural self. One must realize that the "worlds" and "gods" of mythology and metaphysics are, in Coomaraswamy's words, "levels of reference and symbolic entities which are neither places nor individuals but states of being realizable within you."

In other words, a metaphor is indeed a lie if it is taken literally, as an actual account of historical happening—as Campbell's radio interviewer knew all

One must realize that the "worlds" and "gods" of myths and metaphors . . . are to be understood as states of mind and soul.

too well. But metaphors cannot be properly understood in literal terms. Although the figures of mythology may *begin* locally, they are to be understood fundamentally as metaphors of states of mind and soul that "are not finally of this or that place and time".

The Consequences of Tribal Literalism

It is in Campbell's spelling-out of the distinctions between mythology as metaphor and as literal fact that his tone reveals an impatience similar to that of a professor repeating himself for the benefit of those who did not hear him, or understand him, the first time around. He traces confusion about the nature of mythology, metaphor and history to what he has described in his lectures as "the numbing banality of fundamentalist literalism".

With this, Campbell takes a stand for poetic and mystical readings of mythology as opposed to interpretations of this or that mythology or religion as *the* final and indisputable Word of God. (The metaphysical possibilities here start to seem endless. What, for instance, are the global social and moral ramifications of the Rev. Pat Robertson and the Ayatollah Khomeini *both* asserting that they rely on the scriptures of their respective religious traditions as the literal, exclusive, and indubitable account of God's will, and asserting that contradictory religious doctrines are, at best, mistaken and, at worst, satanic?)

Campbell's view of mythology as "transparence to the transcendent" is not likely to be taken as a point of either agreement or contention by newspaper editorial writers or orators in the House of Representatives. But when an abstraction such as this trickles down into what Jung called "the collective", where only the most devout shamans

manage to avoid completely the monad's magnetism, the debate becomes more concrete and immediate—and political. Many devout Christians are not as inclined as Campbell to understand the Virgin Birth as a metaphor. And as for the Creation of the World, which are we to believe: the Book of Genesis version that the event occurred in six days by God's own hand, or the complex cosmological equations which trace the Big Bang to between 13 and 17 billion years ago?

Both, Campbell believes: cosmological evidence as empirical, historical evidence (just as fossil records are historical evidence); Genesis as inspired poetry. The reification of metaphoric imagery has been, Campbell argues, a central characteristic of "the whole Judeo-Christian-Islamic mythic complex", and he doesn't particularly like it. "*What can such tribal literalism possibly contribute but agony to such a world of intercultural, global prospects as that of our present century?*" he plaintively asks.

That this question leads to no easy answers is evidenced in recent courtroom battles between advocates of evolutionary and Biblical accounts of life's origins. For just as surely as Joseph Campbell is certain that "the promised Land cannot originally have referred to part of this Earth to be conquered by military might" by a group which believes itself to be God's Chosen People, many Israelis are equally certain *he* is wrong. Meta-tribal globalism, say hello to tribal literalism.

Which is all to reiterate what Joseph Campbell surely already knows from his decades of charting new and controversial paths joining mythology, psychology and religion: *ideas have consequences.* If *The Inner Reaches of Outer Space* receives the wide reading it

deserves, its ideas will be of great consequence indeed. While in many ways his least immediately accessible book (often the abstractions serve as foundations for yet denser, more complex abstractions), Campbell shares with Jorge Luis Borges and Carlos Fuentes an intuitive skill in building energy through the dialectic of contraction and release, thematically as well as structurally. His chapter entitled "The Way of Art" is often breathtakingly beautiful, conveying as it does the author's appreciation of the esthetic dimension of mystical realization.

"How is a person to go about finding his or her myth?" a young man asked several years ago of Joseph Campbell, who responded with a question of his own: "Where is your deepest sense of harmony and bliss?"

"I don't know—I'm not sure," he answered.

"*Find it,*" Campbell sang back—"and then *follow it.*"

Joseph Campbell, 82, now at work on the second volume in his atlas of world mythology, is a man who has found, and is following, his bliss. His work is important. He is a national treasure.

The Inner Reaches of Outer Space by Joseph Campbell; New York: Alfred Van Der March, 1986, 155 pages; cloth, \$16.95. (Available to members for \$14.40 through the Institute ordering service; please add \$1.50 for handling and postage, and 6% tax for Californians.)

Keith Thompson is a freelance journalist, writer and editor, and hypnotherapist from Mill Valley, California.

Investigating the Phenomenon of Channeling

Why has the phenomenon of "channeling", known throughout history, recently come to the forefront of popular interest? Previously the province of prophets, saints and psychotics, channeling is now the topic of television shows, magazine articles and even a recent front-page story in The New York Times. Channeling was the subject, for example, of a Merv Griffin Show and Good Morning America; and a television series is soon to appear, based on Shirley MacLaine's book Dancing in the Light, which tells of the actress' personal experience with channeling. Channeling was also the subject of a panel at the August 1986 meeting of the Parapsychological Association, a first for that group.

The Institute of Noetic Sciences has commissioned noted researcher Arthur Hastings to explore this phenomenon and to write a book about it. His book will place channeling in historical context and will explore its particular personal and social relevance at this time. Hastings will also examine various models to account for the process, drawing on case study materials.

Here are some of Arthur Hastings' initial observations on channeling:

What is Channeling?

Channeling is a contemporary term for the process in which a person transmits messages from a presumed discarnate source external to his or her consciousness—as, for example, through automatic writing, trance speaking, or reporting mental dictation. Often the source identifies itself a being from a non-physical reality, such as an angel or deity, a composite entity, an advanced being, or a formerly incarnate person.

Reports of channeling reach far back into history, and are included even in accounts of the origins of major world religions. Other types of content in channeled material, include scientific information, cosmology and psychology as well as music (Mozart), literature (Rilke) and art (Luiz Gasparetto, who is currently channeling drawings and paintings from such artists as Leonardo, Rembrandt and Toulouse-Lautrec). The quality of the channeled material varies. Some material is well-composed, precise, with sophisticated ideas and spiritual presence. Other messages are vague admonitions and generalities, predictions that prove inaccurate, and egocentric monologues that are unworthy of attention no matter what their origin.

The Nature of the Process

The question of the underlying process of channeling is of great interest. Many channeled sources identify themselves as separate, discarnate beings, and this is one possible model for the process. This assumes that there are outside entities (discarnate beings), who in some way communicate directly

with the conscious mind of the person, or use the body to transmit their messages. Assuredly they do often appear to be independent personalities, with character and self identity, and capabilities that are quite different from the channel.

If we take many of the channeled messages at face value they affirm the separate existence of non-physical beings, who can communicate through human consciousness or psychomotor activity. This implies the reality of other domains, such as those described by many religions, occult traditions, and visionaries.

On the other hand, the process of channeling may be viewed as coming from the unconscious mind, as a form of alternate personality, as Stephen Braude suggests. From this perspective, the insights, psi information and teachings come from another part of the self. We know that a person can have multiple selves, which may each have character and personality, and recent studies of people with multiple personalities have frequently found beneficent and wise selves along with the distorted ones. (The phenomenon of multiple personality was reported in depth in Volume 1, #3/4 of *Investigations*, the Research Bulletin of the Institute of Noetic Sciences.)

A third model, suggested by some of the sources themselves, holds that a part of the individual makes contact with the deeper parts of the self or perhaps archetypal forces, which are then personified. Ira Progoff, for example, in a study of the medium Eileen Garrett, concluded that at an unconscious level she was contacting the wisdom and oracle archetypes and forming them into personalities for purposes of communicating their messages.

Finally, if we accept telepathy, clairvoyance and other psychic abilities as genuine, another model suggests that the channel's unconscious mind could use psi to obtain information from whatever time or place, being or object. In this case we would not need to assume there was a separate entity involved, but the information could be obtained by the unconscious mind. Edgar Cayce, for example, claimed to read the Akashic Records (in occult lore the cosmic record of all events throughout time).

Several channeled messages sound a pragmatic note, saying that the origin of the information is not so important as whether it is of use to the person receiving it.

Current Trends

There are two recent types of channeled communications that seem especially tuned to contemporary interests and cultural needs. These communications are concerned with personal development and with a "New Age transformation". Their widespread appearance is unprecedented in channeling's long history.

Many of the contemporary channels talk with persons who ask questions for personal guidance, for advice, and for professional information. This type of channeling thus tends

It is important to realize that channeling has a long history and has served a variety of purposes.

to serve as counseling or therapy. Channeled information also consists of suggested spiritual or psychological exercises, often used by individuals for personal growth. For others the messages provide wisdom and perspective on their lives and experience. This is an important role today, and one that was not prevalent 30 years ago. It certainly is congruent with the increase in psychotherapy and personal development work of recent years. "Seth", for example, spoke extensively on aspects of the personality, states of consciousness, and self-development. "Michael", claiming to be a collective of 1000 souls, transmitted an elaborate system of personality types, stages and levels.

A channeled teaching that is both psychologically and spiritually oriented is *A Course in Miracles*, which provides specific exercises to be done by the reader for spiritual transformation. This emphasis is quite recent in channeling. It might be attributed to the increased individual and social interest in inner development, or it could be a response to the need for such work at this time in our history, as perceived by our collective self or other forces.

A second theme that has recently emerged is that of a coming "New Age transformation". Several channeled messages say in one way or another that humankind is in a transition, at a change point, in which there will be movement to "a higher consciousness". The channels say that beneficent forces—angels, devas, advanced beings, etc.—are providing us with energy, information and in other ways assisting in this transformation. *The Starseed Transmissions* illustrates this theme. Sometimes the change is linked with natural or nuclear catastrophe, but usually it is a change in consciousness that is anticipated. What is striking is that most of these channeled materials are tuned to the time and people. One may, in this sense, look at channeled material and learn what are the needs, hopes, fears and aspirations that lie under the surface.

Some Caveats

There are some disadvantages and even dangers to be noted here. There is a tendency for channels and channeled beings to develop followings and followers, and to be attributed with supernatural wisdom. There is a kind of assumption that if there are beings in a trans-physical reality then those beings must be much more advanced and knowledgeable than we folks limited by the physical domain. Charles Tart once commented in this regard that "dying does not necessarily raise your IQ", and the same applies to channeled entities. Some do seem to speak wisely, seem to use psi functioning in their communication, and appear to have integrity. There are also those who raise themselves up at the expense of their listeners, whose wisdom seems no more nor less inspired than any of one's worldly friends, and whose values could be questioned. *Yet there is a human tendency to overreact to the nature of the source, whether to elevate it or dismiss it.* The pragmatic

viewpoint is that value must be determined by the content and the consequences, not by the origin of the material.

The personal element intersects with an aspect of research, and this was brought out by Tart at the Parapsychological Association meeting. While intellectually we may deal with the idea of channeling with cool judgment, our personal feelings may be fearful of losing control, or fearful of studying people who relinquish their consciousness to ostensible entities, whether a higher entity with beneficent teachings for the world, or a hate-filled ghost seeking revenge for some past life trauma. Tart suggests that the researcher might believe the channel to be "irrational", and that only special, different people can channel. "Perhaps most of us could channel to some degree (for better or worse) if we dealt with our fears around this issue," said Tart. "These issues must be faced or future research will be sabotaged," he concluded.

The Need for Research

What is the value of studying this topic? First, it is important to realize that channeling has a long history and has manifested with a variety of purposes. We should not limit our understanding only to the forms that are predominant today. Thus channeling may be a natural occurrence for a society or culture. There is perhaps a social function for ideas to come through this means, or perhaps it is one of many human processes of communication.

If messages do indeed come from non-physical beings, then the implication of the reality of other domains wants to be explored. If the messages, which are often spiritual and inspirational, come from another part of the self, the implication is that there is a deep part of consciousness that is profoundly concerned with noetic values and attitudes. If this model is held it implies that there are amazing potentials in the unconscious for creativity, insight, and eloquence that are rarely tapped by our conscious self. How many people could write, *consciously*, a 60,000 word novel in archaic English, with words even professional scholars do not know (as, for example, with the Patience Worth material)? Braude has commented that attributing the writing to a spirit does not solve the problem of how such a feat was done; it is difficult whether done by a human or a spirit!

Indications are that channeling is a rich source of information for personal and cultural understanding. It tends to be of a spiritual nature, varying in quality, but usually with an intention toward human betterment. However, agreement about the essential nature of the process has not yet been reached. (Indeed, there are only two or three research studies on the topic of channeling in all of the scholarly and scientific literature.) Learning more about channeling holds the promise of deeper understanding of human abilities and the realities of consciousness.

Book Review

Peace Through Changing Consciousness

In the field of foreign affairs, ordinary people often feel powerless, but this book describes ways in which you can help, personally, to transform the nature of our relationship with the Soviet Union, and our identity as a people. And you can enjoy doing it. . . .

Citizen summitry is the application of individual initiative to what are normally considered the highest matters of state—relations with an adversary. As an ordinary citizen you engage in summitry not by wangling an invitation to the next meeting with Gorbachev, but by deciding that peace matters too much to be left only to politicians. Of course politicians will always be central to any decisions about war, defense, and "national security"; it is they, with the diplomats and military officers, who negotiate treaties, make alliances, take actions affecting the terms of international trade, and deploy armed forces. But in our fascination with this ruling elite, magnified as they are by the contemporary media, we may easily forget our own sources of creativity.

Craig Comstock in Citizen Summitry

Citizen Summitry: Keeping the Peace When It Matters Too Much to be Left to Politicians

Edited by Don Carlson
and Craig Comstock

Los Angeles: J. P. Tarcher; 1986; 396 pages; paper, \$11.95 (Available to members for \$9.30 through the Institute ordering service; please add \$1.50 for handling and postage, and 6% tax for Californians.)

Reviewed by Willis Harman

What is the most important single thing one can do to eliminate the threat of nuclear war and bring about peace and common security? Change your perceptions! How? That is what *Citizen Summitry* is about.

Future generations will look back on the latter half of the 20th century as a time when ordinary citizens awakened into awareness of their own power to affect the future. That process is well underway, and *Citizen Summitry* bids fair to become one of the significant milestones.

The half-century began with the near-simultaneous announcements by the US and the USSR of successful tests of thermonuclear "devices", and the rapidly spreading realization that nuclear weapons had changed the world we live in. War and preparation for war, long considered legitimate functions of a nation-state, were no longer sane responses when war had become the mass murder of civilians and the potential obliteration of civilization. But how to get rid of old habits? How to restrain the powerful momenta of the massive institutions of war (or "defense" as Washington euphemistically re-labeled the War Department in 1949)?

A step toward an answer came in the form of a wave of changing perceptions that resulted, by 1973, in a powerful demonstration: Ordinary citizens could prevail over the momentum of the nation's war machine and halt the disastrous Vietnam conflict! According to the official Washington analysis of the situation in the mid-1960s, Communist China had set out to take over Southeast Asia and thus menaced the entire free world. The prevailing metaphor was the "domino theory",

wherein if the first "domino" (Vietnam) fell, the rest would tumble one by one. People bought into that perception at first, assuming that the experts in Washington must be basing their picture on information denied the ordinary citizen. But as the '60s came to an end, a widening group of people were concluding that the experts in Washington weren't right after all. They finally brought pressure to stop the debacle.

The change in perception involved was twofold. A stance that had once seemed legitimate was re-perceived as not legitimate. And, *the people realized that their perceptions determine the legitimacy of any institution, no matter how powerful, and any institutionalized behavior, no matter how time-honored.*

As the 1970s slid into the 1980s fear of China diminished, business and tourism increased, and we now perceive the Chinese as pretty good Joes after all (as we had earlier similarly re-perceived the Japanese and the Germans). But the Soviet Union is still our bogey-man. To help with the necessary re-perception of the Soviet Union a growing number of ordinary citizens have been taking matters into their own hands and acting as "citizen diplomats"—visiting the Soviet Union and setting up communications with their counterparts there, exchanging books and information, and in general promoting the concept that our main enemies are our fears and our perceptions. In other words, further preparing us for the Great Re-perception that war and preparation for war are no longer legitimate behaviors for the nation-state to undertake autonomously.

One of these citizen-diplomat groups is an organization called Ark Communications, founded by business entrepreneur Don Carlson. And one of their projects is the recently published book *Citizen Summitry: Keeping the Peace When It Matters Too Much to be Left to Politicians*. This is a collection of essays which, through the skilled editing of Carlson and Comstock, ends up with a coherence not ordinarily found in such collections.

"Citizen summitry" is defined as peaceful initiatives undertaken by citizens and voluntary associations ("non-governmental organizations" or "NGOs") in order to build a more constructive relation with a foreign country—specifically, in the present case, the Soviet Union. The book discusses four types of consciousness-changing activity: (1) Building citizen-

to-citizen relationships through personal travel, "citizen diplomacy" tours, etc.; (2) conducting international exchanges via "space-bridges"; (3) transforming our own consciousness through changing inner images and conditioning; and (4) creating and sharing positive scenarios for a war-free future.

Carlson and Comstock make a persuasive case for the main hope of sustained peace coming from these sorts of citizen actions. Government, says Comstock, "is structurally ill-adapted to transform hostility into peace. One of the primary duties of government is to identify and defend against enemies. As soon as a pair of countries begin to identify one another as enemies, as the US and the Soviet Union did long ago, they generally take steps to confirm and amplify the initial fears, thus starting a familiar cycle. If a government fails to be vigilant in 'threat assessment' or to procure weapons with which to threaten the enemy in return, it does not deserve to govern." But then it is difficult for that government to also maintain the mind-set that will seek out and create the conditions for peace.

As Carlson observes, the badly needed new approach to peace and security is "unlikely to come from politics or diplomacy as currently practiced. . . . One place I find hope is in the growing number of people who have suddenly come to the realization that because of the failure of 'experts' we must, as ordinary people, come to the rescue of our collective destiny. Not encumbered with the awesome responsibilities, rituals and reputations of 'experts', ordinary people are capable of fresh perception, new goals, and wonderfully creative strategies; they are not experienced enough to dismiss daring and unprecedented actions as 'unrealistic' or 'impossible'. While 'experts' play out the tired old strategies, new and powerful ideas for easing planetary tensions are appearing everywhere among people who understand that world security can no longer be left to those who got us into the present fix."

Michael Shuman echoes these thoughts about citizen diplomacy: "What is most significant about citizen diplomacy is that it gives each of us a concrete, realistic task for tomorrow. We no longer need to despair that nuclear war is inevitable and we as individuals can do nothing about it. We can now join hands with our neighbors and transform our enemies, one by one, into our friends and partners. The power

to rebuild the wreckage of US-Soviet relations into an exemplar for a new era of global peace is now within our grasp."

One of the most informative and moving portions of the book is the story of the historic TV satellite space-bridges from 1982 to 1985 (including the "US" festivals, the Nuclear Winter Conference, the Beyond War telecast, and the Live Aid concert). The potentialities of this technology for promoting understanding through communication are generally recognized. But the fact is far less widely known that the initiation of the space-bridges, and the spirit of friendship in which they were held, were a triumph of citizen diplomacy. This was the dedicated work of a handful of private (I was about to say "ordinary", but they are extraordinary) citizens. At a time when it was generally assumed that the Soviet Union would never permit live, unscripted, spontaneous two-way broadcast, these few persevering persons proved the assumption wrong. Jim Hickman, Kim Spencer, Evelyn Messenger, and a small number of others, created what may be the most spectacular demonstration so far that citizen diplomacy can sometimes make things happen which would be far less likely if left to "the people in power".

Citizen Summitry also includes a collection of papers by Soviet citizen diplomats. (Yes, the Soviet Union has them too!) One of these, Joseph Goldin, proposes a "Mirror for Humanity"—a multiple-space-bridge network with gigantic video screens situated in many different parts of the world. One of the first programs he would share around the world features the sun. "The montage will take the sun up over the Earth. . . switching the image from one enormous video screen to another in a smooth glissando, changing with the landscapes and different populations. In some countries we see yesterday's twilight, in others the dark of night, but it is, above all, people that we see everywhere: people young and old, people with their chins turned upward or their hands folded in prayer, people embracing and looking at the sun as it rises at the edge of the Earth, their eyes catching each new ray of sunlight as it streams forth. This would be the first ritual of an emerging humanity as a community."

Citizen summitry is the focus, as one would surmise from the title, yet there is a broader message as well. Marilyn Ferguson summarizes the pro-

mise of transformation that is threaded throughout the book:

"We have had a profound paradigm shift about the Whole Earth. We know it now as a jewel in space, a fragile water planet. . . . We have discovered our interdependence. . . . The old gods of isolationism and nationalism are tumbling. . . . We are learning to approach problems differently, knowing that most of the world's crises grew out of the old paradigm—the forms, structures, and beliefs of an obsolete understanding of reality. . . . *Individuals are learning to trust—and to communicate their change of mind.* Our most viable hope for a new world lies in asking whether a new world is possible. . . ."

"War is unthinkable in a society of autonomous people who have discovered the connectedness of all humanity, who are unafraid of alien ideas and alien cultures, who know that all revolutions begin within and that you cannot impose your brand of enlightenment on anyone else. . . ."

Over and over, throughout the book, the same point is made: *Our enemy is not the Russians, but a mind-set.* As Roger Walsh puts it: "The current global threats to human survival and wellbeing are actually symptoms of our individual and shared states of mind. . . . The state of the world reflects the state of our minds; our collective crises mirror our collective consciousness. That same consciousness which both created and was created by our millions of years of evolution now stands threatened by its own remarkable, though incomplete, success."

Summarizing the book, Craig Comstock says, "Although we are now in serious danger, our civilization does not have to perish in a nuclear war. In fact, we can have a future much better than most of us usually allow ourselves to imagine. Peace can be kept. We don't have to wait for somebody else, such as a leader, to provide the initiative; everyone can take part. Getting there will be half the fun. It will involve enriching our lives through contact with what's now alien and foreign, through inner development, and through imagining exactly what we want and working back to how we get there. In a few words, that's the message of this book." It's a message both welcome and effectively presented.

Willis Harman is President of the Institute of Noetic Sciences.

Book Reviews

by Nola Lewis

The Miracle of Existence

by Henry Margenau

Woodbridge, Connecticut: Ox Bow Press, 1984;
143 pages; cloth, \$16.00 (Member price \$13.60*)

The Miracle of Existence is a work of philosophy that approaches the great issues: the mind/body problem, consciousness, the nature of thought, science and religion, and the universal mind. It is the sequel to two earlier books by the same author in which some of these issues were treated in more conventional ways.

The present volume, conceived and written during the later years of Margenau's life, "departs from convention, at least with respect to Western thought, and takes risks I would have foregone in my earlier years."

Starting from a profound understanding of modern science, the author draws upon his own precisely developed concepts of epistemology to draw together science, philosophy and religion into a coherent whole—a metaphysics for the atomic age. The view which emerges moves from the intimate structure of science to the conclusion that "each individual mind is part of God or part of the Universal Mind."

In Margenau's words, "The title of this book was intended to characterize its philosophical content These ideas turn out to be akin to certain widely accepted and remarkably enduring oriental views."

The Social Brain:

Discovering the Networks of the Mind

by Michael S. Gazzaniga

New York: Basic Books, 1985;
219 pages; cloth, \$17.95 (\$14.85 to members*)

As we live our lives, our brains are constantly receiving a barrage of information both from within our own bodies and from the world about us. How do we interpret this stream of ideas, impressions, and experiences to create a unified and coherent consciousness?

In this provocative and readable book, Michael Gazzaniga answers this important question with the novel hypothesis that our brain is more a social entity than a psychological one. Rather than being an indivisible whole, as was once believed, it is a vast organization of relatively independent "modules", each of which processes information and activates its own thoughts and patterns of action.

Gazzaniga supports this concept with readable descriptions of research which ranges from the early work on "split-brain" patients which led to the familiar "right brain, left brain" way of thinking about mental capacities, to cutting-edge experimentation now underway to map the organization and function of modules, units which can compute, remember, feel emotion and act. There is even a special module in the left hemisphere to interpret this activity by creating personal beliefs about our disparate behaviors, thus helping each of us develop our own individual sense of consciousness.

In engaging and non-technical language, he shows the revolutionary implications of this type of organization for how we form belief systems, for the nature of consciousness, and even for our sense of "self".

Peak Performers: The New Heroes of American Business

by Charles Garfield

New York: William Morrow & Company, 1986;
333 pages; cloth, \$16.95 (\$14.00 to members*)

As a young computer programmer on the Apollo II mission, Charles Garfield witnessed the phenomenon of peak performance: people inspired by the challenge of putting our first man on the moon performed repeatedly at the height of their abilities and produced amazing results.

This stimulating experience led Garfield into an eighteen-year investigation of high achievement in a number of fields. In gathering and analyzing information from some of the most productive people in our culture, he came to see that the heart of the peak performer's ability to function is neither a singular talent nor even a collection of behaviors, but an overall *pattern* of attributes.

What skills and strategies can we learn from peak performers? How do we achieve and maintain peak performance in ourselves? This highly readable book is filled with examples and ideas which show that these are not rare and remote individuals who miraculously achieve far beyond the norm, but people setting a new norm, a kind of person we all can be. They are always willing to evolve and grow, to learn from the work as well as to complete it, to be "better than I ever was".

For the peak performer in us all, these resources constitute a new meaning of "private enterprise", a meaning fueled by more than economic self-interest, where power is based upon the broader human values of innovation, worthy purpose, contribution and love. Tapping these resources, we have the capacity to participate in our own evolution and to function as co-trustees in the process.

Deception: Perspectives on Human and Nonhuman Deceit

edited by Robert W. Mitchell and Nicholas S. Thompson

Albany, New York: SUNY Press, 1986;
383 pages; paper, \$18.95 (\$16.10 to members*)

Whether one is concerned with the utilization of deliberate "misinformation" as a political tool or with the subtler forms of self-deception which may color personal relationships, the subject of deception is one with a great deal of relevance to the human species. What can we learn from animal behavior which will help us understand this phenomenon?

This interesting and scholarly book examines its topic from a variety of perspectives, including philosophical, evolutionary, ecological, and ethological. Mitchell and Thompson have compiled the first interdisciplinary study of deception and its manifestation in a variety of animal species. It presents detailed descriptions of a broad array of deceptive behavior, ranging from deceptive signaling in fireflies and stomatopods, to false-alarm calling by birds and foxes, to playful manipulating between people and dogs. An especially interesting chapter describes the development of deceptive skills in children and the use of deception in sports and military theory.

The principles underlying successful deception in the animal world—simulation, predictability, honesty, victim co-adaptation—are interesting to read about in their own right, and serve as a stimulating basis for examination of one's own personal behavior and the belief systems on which it is based. ▶

***The Wonder of Being Human:
Our Brain and Our Mind***

by Sir John Eccles and Daniel N. Robinson
Boston: New Science Library/Shambhala, 1985;
182 pages; paper, \$8.95 (\$7.60 to members*)

Historical survey reveals that each age has had its cherished superstitions. The connection between what we do and what we think we are, between what others expect of us and what they think of us, is so close that much of social and political history can be understood just in these terms.

This book questions the very concepts on which our own age rests. It asks whether they will be rebuked by a more discerning posterity or if indeed some of them should be uprooted even if there were to be no future to look back upon us.

Eccles and Robinson examine five areas standing at the core of modern thought and action: scientism, relativism, materialism, evolutionism, and environmentalism. Their view is that each of these truisms is incoherent, implausible, or provably false when subjected to close examination. "It is our view that these five truisms of today's folk philosophy have much to do with the dissatisfaction and aimlessness infecting modern life and that they deny the modern citizen the pleasure and happiness of the human adventure."

This book expresses an effort to understand the human person as an experiencing being, and to regain a measure of meaning in human existence. "It is offered in the hope that it may help man to discover a way out of his alienation and to face up to the terrible and wonderful reality of his existence—with our courage and faith and hope. . . . We should give all we can in order to play our part in this life on earth."

The Way of the Physician

by Jacob Needleman
San Francisco: Harper & Row, 1985;
187 pages; cloth, \$15.95 (\$13.55 to members*)

The roots of modern medicine lie embedded in a profound system of spiritual metaphysics that traces its own origin as far back as recorded history. But although the science of medicine began in this way, its development up to our time is quite another story.

This book addresses the concerns of contemporary physicians and their patients that the meaning of their craft is being limited or taken from them—by such mundane influences as government intervention, legal restrictions, hospital data banks, and insurance companies. Within the modern medical system, is it possible to discern the medical ideal of healer and philosopher?

Philosopher Jacob Needleman, who long dreamed of becoming a physician, has engaged in intense discussions with doctors and other health care professionals about the ideals and challenges of their profession. The result is a moving and thoughtful book, filled with the richness of human drama, telling observations, and exact and timely questions. Needleman presents the physician as a paradigm of all humanity, dealing as they do with the extremes of human vulnerability in facing life's beginnings and endings.

"The aim of this book is to demonstrate that the meaning of being a physician can only be recovered through a rediscovery of the question of the meaning of human life itself." This book provides an interesting engagement of that question.

**Members may order books at the special prices listed through the Institute ordering service; please add \$1.50 handling and postage for each book, and 6% tax for Californians.*

Special Book Offers to Members

Two Special Institute Projects

Higher Creativity: Liberating the Unconscious Mind for Breakthrough Insights, by Willis W. Harman and Howard Rheingold; Los Angeles: J. P. Tarcher; 1984; paper, \$8.95 (\$6.95 to members*)

"Almost everyone has had some experience of a channeling of creative insight, a breakthrough of deeper intuition, a moment of knowledge recognizable as something beyond the usual reach of the cognitive mind. . . . The point where human consciousness and societal transformation seem to meet in history is in this personal breakthrough to untapped potentials. Each of us faces daily the effects of change, in the form of dilemmas that perplex, daunt, and sometimes threaten to crush us. Yet within us we might well have a capacity to break through to the kind of insight and resources that can resolve even our greatest difficulties."

Waking Up: Overcoming the Obstacles to Human Potential, by Charles T. Tart; Boston: Shambhala Publications; 1986; cloth, \$17.95 (\$15.95 to members*)

"There is an inner light, an inner peace, that can be found. There is an awakening of your mind possible that will indeed make ordinary consciousness seem like a state of sleep. It will make you more, not less, effective in the ordinary world, and allow you to give more genuine attention, care, and compassion to others. I have tasted it, not just thought about it. I know it leads to an inner peace that facilitates an outer peace. I am happy to share what I can of this knowledge with you."

Research and writing of these books supported by a grant from the Institute of Noetic Sciences.

The Institute of Noetic Sciences Peace Packet

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Readings: A historical and conceptual orientation to peace, with particular attention to US/USSR relations.

- *How to Think About Peace:* Willis W. Harman
- *Sample Scenarios for Peace:* Willis W. Harman, Elise Boulding, Patricia Mische
- *What the Russians Really Want:* Marshall D. Shulman

Inner Work: Suggestions on how to get in touch with your own beliefs about peace, and how to use techniques such as relaxation, visualization and affirmation to modify beliefs. The Peace Journal is for recording your inner work, collecting quotes and pictures that inspire you and deepen your understanding of peace issues.

- *Techniques to Enhance Belief Modification:* Nancy J. Napier
- *Peace Affirmations*
- *Peace Journal*

Outer Work: A beginning point only—for you to discover your own opportunities and move easily into the roles that best fit you.

- Individual Action • Group Opportunities • Reference Books and Music

The Peace Packet, presented in an attractive format, is available from the Institute of Noetic Sciences for \$10.95 plus \$2.50 handling and postage; Californians please add 6% tax.

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Or order by phone: call 415-331-5650, 9-5 Pacific time.

“Moonflags” are offered



Apollo 14 astronaut Edgar Mitchell has made available to Institute for Noetic Sciences members some souvenirs from his trip to the moon 15 years ago, when he had the "noetic" experience that led to his founding the Institute.

"Each member of our crew was allowed to take a few personal items on our voyage, as souvenirs of the history-making experience," he said. "I chose to take along a few small American flags . . ."

These flags, in very limited supply, have since been mounted, each on a photograph of a moonscape with a rising Earth etched in crystal, framed in a museum-quality setting. Each individual owner's name will be engraved on the base of the plaque, and a certificate of authenticity will be signed by Mitchell.

"I didn't give away my 'souvenirs' from the moon, as I had originally planned to do," said Mitchell. "It occurred to me that those flags were even more special than I had thought they would be. They have become a symbol of the vision I had . . . and a way of sharing my discoveries and enlightenment with those who are determined to work towards a new way of thinking. What I've now decided to do is offer these flags to those whose faith in the vision of IONS, its mission and its accomplishments allows them to donate \$10,000 or more in tax-deductible contributions this year."

Members wishing to consider a major gift to the Institute can contact Winston Franklin at the IONS office, 415-331-5650.

Institute Travel News

Burma and Thailand . . . Buddhism and Mountain Spirits: (January 15 - February 4, 1987)

Explore the contrasting worlds of the Buddhist rice cultivators of the lowlands and the wild nomadic hill tribes whose animistic tradition reveres the spirits of trees and mountains. In Burma you will meet a fragile world of unimaginable beauty. The splendor of the temples contrasts with the gentle courtesy of the people. The Royal Kingdom of Thailand is deeply Buddhist and has elaborate palaces, temples and museums. Their Northern hill tribes produce exquisite handicraft. In both countries you'll meet healers and will see exotic dance performances.

ITINERARY: Thailand: Bangkok, Ayuthaya (ancient capital), Chiangmai and Chiangrai to visit Northern hill tribes, Phuket Island. Burma: Rangoon, Pagan, Mandalay, Heho, Pindaya Caves, Kalaw Hill Station.

TOUR LEADER: Bruce Carpenter has lived and traveled extensively throughout Southeast Asia. He understands and will introduce you to the inner world of trance healing, rituals and shamanic magic.

TOUR COST: \$4,675, including air, from the West Coast. Limit - 22 people.

West Africa . . . Traditional African Medicine: (February 24 - March 10, 1987)

A unique opportunity to experience the fascinating and profound healing traditions of West Africa. You will meet with scientists, herbalists, priests, and priestesses, each a student of traditional healing. In Togo in-depth time will be spent with Durchback Akuete, a wise and powerful traditional spiritual master, studying dance, trance, and healing ceremonies. In both Togo and Cote D'Ivoire, we will journey to the remote interior to explore the herbal and fetish rites of several fascinating tribal cultures.

ITINERARY: Lome, Togo 5 days, Northern Togo 3 days; Cote D'Ivoire 4 days; Abidjan, Korhogo and the Senoufo. Optional Extensions: Mali and the exotic Dogon Culture, East African Wildlife Safari including Nairobi, game reserves, and the Great Rift Valley.

TOUR LEADER: Danny Slomoff, PhD, Director of the Marin Center for Pain and Stress Management, has led five prior trips to this area and has many friends you will meet and learn from.

TOUR COST: Approx. \$3,490, including air from New York. Limit - 20 people.

Other 1987 tours:

Soviet Union: May 3 - 24
Focus on citizen diplomacy.

Hawaii and Island Cruise: June 20 - July 1
Focus on experiential seminars with Charles Tart, PhD, on the theme of his new book *Waking Up—to your real nature and the nature of reality.*

Fiji and Australia: October 1 - 21
Focus on workshops with Brendan O'Regan and Naomi Remen, MD, on the *Inner Mechanisms of Healing*, plus interactions with dolphins, birds, sea life on the Barrier Reef, and aboriginal cultures in Australia.