

PROLOGUE: THE PEAR EXPERIENCE

*When you set out for Ithaka
ask that your way be long,
full of adventure, full of instruction.
The Laistrygonians and the Cyclops,
angry Poseidon —do not fear them:
such as these you will never find
as long as your thought is lofty, as long as a rare
emotion touch your spirit and your body.
— C. P. Cavafy¹*

It started as an unused storage area next to the machine shop in the basement of Princeton University's School of Engineering and Applied Science. In an almost organic manner, it soon doubled in size and then progressed to four, and then to five small rooms, and eventually evolved into the unique and dynamic environment that was the Princeton Engineering Anomalies Research laboratory. It gradually became furnished with sophisticated high-tech equipment, environmental sensors and monitors, chart recorders, oak paneling, carpeting, and a large orange velvet sectional sofa facing an enormous 10' × 6' "pinball machine" that occupied an entire wall. Framed NASA images of planets and galaxies adorned the walls, along with countless cartoons, and a "McArthur's Corrective Map of the World" that offered a novel geographical perspective by having South at the top. Assorted notices were posted on the doors, one of which advised the staff "Don't Speculate, Concatenate;" another instructed that "There shall be tea and cookies, and juice in tiny little cans." A sign on the door to one of the experiment rooms read "Operator at Play," in an assortment of languages. Mismatched metal file cabinets and desks rescued from the university's surplus warehouse lined

every available wall of the two staff offices, and two comfortable reclining chairs that arrived bearing tags reading “Hello, I’m Comforto the Incredible” were provided for the experimental operators. Overseeing it all was a small plush frog with a silly grin who became the official mascot of the laboratory, along with a virtual Noah’s Ark of other stuffed animals.

The activities that took place in this exceptional space were as eclectic as its fixtures. Staff discussions ranged from the relative merits of Bayesian vs. frequentist statistics, the dynamics of laminar and turbulent fluid flows, quantum entanglement, and the proper calculation of *a priori* probabilities for remote perception descriptors, to the functions of the unconscious mind, traditions of Eastern philosophy, indigenous healing techniques, and the nature of reality. The blackboard shared an assortment of mathematical equations with “To Do” lists and pithy quotations. The permanent staff, comprising an exceptional combination of professional and personal backgrounds and perspectives, was regularly augmented by a variety of shorter-term specialists and interns.

This was the PEAR lab.



When we first embarked on this exotic scholarly journey more than three decades ago, our aspirations were little higher than to attempt replication of some previously asserted anomalous results that might conceivably impact future engineering practice, either negatively or positively, and to pursue those ramifications to some

appropriate extent. But as we followed that tortuous research path deeper into its metaphysical forest, it became clear that far more fundamental epistemological issues were at stake, and far stranger phenomenological creatures were on the prowl, than we had originally envisaged, and that a substantially broader range of intellectual and cultural perspectives would be required to pursue that trek productively. This text is our attempt to record some of the tactics developed, experiences encountered, and understanding acquired on this mist-shrouded exploration, in the hope that their preservation in this format will encourage and enable deeper future scholarly penetrations into the ultimate Source of Reality.

Reference

¹ Constantine Petrou Cavafy. "Ithaka." In George Savidis, ed., trans. Edmund Keeley and Philip Sherrard, *Collected Poems*. Revised Edition. Princeton, NJ: Princeton University Press, 1992.

INTRODUCTORY NOTES

PEAR was conceived and implemented in the late 1970s for the primary purpose of determining the potential vulnerability of physical systems and technological processes involving random elements to the conscious or unconscious intentions of their human operators. Its ancillary goal was an attempt to comprehend the implications of any such anomalous interactions for a broader understanding of human consciousness and its role in the establishment of physical reality. Experimental results over the first decade of a coordinated menu of empirical studies and complementary theoretical models validated the original technical concerns via rigorous demonstrations of an array of anomalous phenomena that had been widely proclaimed over several millennia of anecdotal reportage and featured in countless books and professional journals. But even deeper issues were to emerge.

These early PEAR results resulted in well over 150 articles, technical reports, and chapters in scholarly books. Many of these were published in conference proceedings and in a variety of refereed scientific journals—in particular the *Journal of Scientific Exploration*, published by the Society for Scientific Exploration—and were summarized in a more broadly targeted book entitled *Margins of Reality: The Role of Consciousness in the Physical World*,¹ first published in 1987. Judging from the blizzard of personal responses from numerous readers who endeavored to share with us their own inexplicable experiences and perspectives, this popular representation also served the valuable role of reassuring these people of the validity of these events in the face of the rejection and ridicule to which they had been subjected by mainstream society.

Now, more than two decades later, the PEAR laboratory has concluded its university-based research operations and we feel obliged to complete the description of this nearly thirty-year research program. To this end, we offer this sequel volume in the hope that it will prove similarly beneficial in extending the base of scientific data and conceptual frameworks, further raising public

awareness, and reassuring a latter-day complex of such sensitive readers. An assortment of experiments in human/machine interaction that have demonstrated the ability of volunteers to affect the performance of various random physical systems in accordance with their pre-stated intentions are summarized, along with the results of remote perception studies that have provided evidence that individuals are capable of acquiring information about geographical locations remote in distance and time without resort to the usual sensory inputs. These are followed by an array of theoretical models that attempt to illuminate the anomalous results and to propose a more comprehensive and powerful scientific and cultural paradigm that is capable of accommodating subjective factors in the establishment and representation of reality. Finally, we sketch the interpretations, principles, and conceptual vision that have emerged from this research and point to a number of pragmatic applications and that suggest new directions for scientific study.

While the initial challenge of fulfilling this constellation of tasks was somewhat overwhelming, the availability of detailed descriptions of our many experiments and theoretical efforts in published anthologies^{2,3} and in the many articles and reports available on the PEAR website⁴ have made it much more tractable. In addition, a useful supplement to these archival resources exists in the form of a tutorial DVD/CD set that captures the spirit and substance of the entire enterprise.⁵ With all these supplementary accounts readily at hand, the tasks of preparing a concise and comprehensive update of our reservoir of empirical data and of effectively displaying the resultant expansions of our theoretical models and intellectual interpretations become somewhat less daunting, allowing us to build upward and outward by invoking generous references and extensions of these preceding representations.

Nonetheless, given the breadth of readership this work aspires to address, a significant issue remains: how much and what depth of tutorial technical material should be included. Here we have chosen to refer most of the technical matters to the referenced

archival literature, distilling therefrom only the minimal details of process and nomenclature needed to make the surrounding prose comprehensible. We hope our readers will treat this format as more of a sampler or smorgasbord of the plethora of scientific, philosophical, and cultural issues raised by the research, and select those items that seem most relevant and stimulating to their particular backgrounds and interests.

The title of this new volume is intended to convey an important nuance in our research perspectives and aspirations as they have evolved. Namely, we now believe that the sundry anomalous physical phenomena that originally attracted our attention are deeply rooted in, and therefore significantly indicative of, a much more fundamental, profound, and ubiquitous metaphysical dynamic whose ultimate comprehension holds far richer potential for human benefit than the more explicit phenomenological curiosities with which we began. In fact, this deeper perspective is arguably more portentous than that of the prevailing scientific paradigm which it challenges. In allowing epistemological penetration beyond the superficial “margins” of reality into the depths of its essential “Source,” the research and interpretations reported in this volume have provided a glimmer of a vast, poorly charted domain for future human exploration, comprehension, and utilization

For this text, we have eschewed such terms as “psychokinesis” or “PK” to describe the human/machine anomalies under study, in favor of language that more aptly conveys the *informational* character of the phenomena, *e.g.* “consciousness-related anomalies” or “consciousness-correlated physical phenomena.” In fact, much of the traditional nomenclature of psychic phenomena has been set aside because of the increasingly antiquated conceptualization it implies.

More substantively, however, several additional topical perspectives have been added to the ensemble of contextual “vectors” that were originally proposed, such as the relevance of the work to the contemporary fields of biology and medicine, and its intrinsic roles in human creativity and spirituality. Likewise,

the original technology theme has been appropriately expanded. Notwithstanding these updates, the philosophy, motivations, potential implications and applications that inspired inception of the PEAR program and have guided it throughout its odyssey have remained largely relevant.

Perhaps the most important ingredient to be emphasized in this new text, however, is the emerging promise of pragmatic applications of the principles, technology, and conceptual vision that have emerged from, and have been enabled by, the extant basic research accomplishments here and elsewhere. Regardless of how much inspiring, erudite, or credible scholarly reportage has appeared or may continue to emerge from such academic study, its ultimate impact will be far less than that of clear demonstrations of the practical utility of the phenomena. In the words of Norman Cousins, “The big ideas in this world cannot survive unless they come to life in the individual citizen.”

References

¹ Robert G. Jahn and Brenda J. Dunne. *Margins of Reality: The Role of Consciousness in the Physical World*. San Diego, New York, London: Harcourt Brace Jovanovich, 1987. Reprinted: Princeton, NJ: ICRL Press, 2009.

² Robert G. Jahn and Brenda J. Dunne. *Two Decades of PEAR: An Anthology of Selected Publications*. Princeton, NJ: Princeton Engineering Anomalies Research, Princeton University, School of Engineering/Applied Science, 1999.

³ *EXPLORE: The Journal of Science and Healing*, 3, No. 3 (May/June 2007).

⁴ <<http://www.princeton.edu/~pear/>>

⁵ *The PEAR Proposition*. DVD/CD set produced by StripMindMedia and available on-line from the Publications page at ICRL <www.icrl.org>, via the appropriate link on the PEAR website, or at <<http://www.amazon.com>>