BREAKING THROUGH

The Heretic Life: Publishing Against the Grain

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o one is born into scientific heresy or has it foisted on him. It is a path chosen, based on a *personal* intellectual assessment of what is correct and what is not. When you've chosen to accept some

new experimental evidence and associated theory that runs counter to what the current scientific establishment is willing to consider in polite terms, you are a heretic. Your view is not acceptable; it is off limits, beyond the pale, and fair game for mockery by official science. It is most uncomfortable to be a science heretic—whether one has made an original heretical discovery such as did Fleischmann and Pons with "cold fusion," or whether one has learned that certain claimed discoveries marginalized and mocked by the establishment are real—or in some cases have a high probability of being real, meriting further careful examination.

As a heretic, one has fewer friends in the science community and makes many new enemies. To explore this at all effectively, one must necessarily be autobiographical, so I will be. The heretic is generally ignored and on occasion is regarded by less-informed friends with a somewhat puzzled grin that conceals a perhaps unstated deep frustration. Having accepted the difficult mantle of science heresy myself beginning around 1990, I imagine these unspoken impressions among associates who have not crossed over: "Why does such a smart guy, who had such a good education, persist year after year in such a 'foolish business' as cold fusion and other claims of 'free energy'? Why didn't he become something we can all understand: a medical doctor, an attorney, a stock broker-or at least an engineer working '9-to-5' on something respectable like 'death and destruction' (e.g. defense contracting), as he did once upon a time?" A quirky thought: Some may view me like the Richard Dreyfus character in the movie "Close Encounters of the Third Kind" (to whom I may bear some superficial physical resemblance), who feverishly shaped Wyoming's Devil's Tower in his living room with hundreds of pounds of mashed potatoes—as he struggled to come to terms with what he had seen? Heaven forefend!

These apprehensions only make the stubbornness of the heretic stronger. The more one learns about the way the contemporary "scientific establishment" works, the more one realizes what a travesty it is in glossing over so many fundamental problems at its roots. It is not merely some new allegedly quantum mechanical quirk of loaded metal lattices—"cold fusion"—that needs to be dealt with. The whole

edifice and process of science today is rotten to the core—despite its vaunted successes and appearances of invulnerability. Again, this is a personal intellectual analysis, with which even many fellow science heretics may disagree—but there are plenty of thoughtful science heretics who share this view. One then begins to be more generous to other scientific heretics than to those who appear to be cogs in the well-oiled scientific machine of repression and publication "sneer review."

To help overcome this "sneer review," in 1995 I helped found this enterprise, *Infinite Energy* magazine. More recently, the non-profit New Energy Foundation, Inc. (NEF) was born, which supports non-mainstream scientific publishing and research in the area of claimed sources of energy that are truly *new*. Yes, we at NEF are neck deep in heresy.

Just how painful it can be to be a science heretic, was recently brought home in the course of applying to the IRS for 501c(3) tax exempt status—that category of organization that allows benefactors and donors to deduct their contributions to NEF on their U.S. Federal income tax filings. We had to examine a crucial point that would favor NEF: Was "the manner in which the distribution (of the magazine) is accomplished distinguishable from ordinary commercial publishing practices"? For some reason, this arcana for nonprofit exemption, coming from an ancient "Revenue Ruling" of the Vietnam era was said to be at issue. It had never occurred to us that Infinite Energy's method of publication had to be "distinguishable" from say Time magazine or Newsweek—it was so obvious that it was distinguishable in purpose and in method! I had to review how we had gotten to where we are today. Here's some of that rendition:

"Let me provide some historical background—necessarily somewhat autobiographical-which sheds direct light on our meeting of the criterion. This has to do with the extreme difficulty and in many cases the *impossibility* of getting critical scientific and technological information to those who need to receive it by any other means than by Infinite Energy. (Let me note in passing, however, that there are numerous magazine publications within the scientific community that are published by non-profit 501c(3) organizations in a manner that is quite definitely indistinguishable in their method of publication from 'ordinary commercial publication practices'; I list and describe many of these in the near final section of this memo labeled 'Other Magazines Published by Non-Profit Organizations with a Bearing on Infinite Energy.' However, for the moment let me present here the facts that prove that NEF publishes Infinite Energy in a manner 'distinguishable from ordinary commercial publishing practices."

Then followed some general background, which even long-time readers of Infinite Energy may not know, so please forgive its repetition if you know it: I have advanced degrees in engineering from MIT (SB Aero/Astro Engineering, 1969; SM Aero/Astro Engineering, 1970) and Harvard University School, of Public Health (Sc.D. Environmental Health Sciences, Air Pollution Control Engineering, 1975), and I have worked for various engineering companies in the 1970s and 1980s on national defense, environmental, and energy research areas. In the mid-1980s I began to be interested in writing about science and technology for the general public while I continued my well-paid engineering employment. Eventually, I began to do this science journalism full-time, thanks to the recognition that I received for having published lengthy science pieces in the Washington Post and in MIT's Technology Review. My first full-time journalism job came in 1985 when I worked as a science writer and broadcaster for the Voice of America in Washington.

In September 1987 I found myself back at my alma mater, MIT, as the Chief Science Writer at the MIT News Office, reporting on MIT's research for the administration newspaper MIT Tech Talk, and also promoting MIT's research to the general media. I was happy to have worked up to an almost engineer-level salary when I left the MIT News Office in June 1991. My leaving was to protest what I had discovered in my investigations of the scientific process at MIT on the matter of the discovery that came to be called "cold fusion."

A dozen years later, as Editor-in-Chief of Infinite Energy and President of New Energy Foundation, doing far more demanding work, with an intensity and difficulty much greater than my MIT position ever entailed, I make the same salary as in 1991—a sacrifice in itself for the cause of New Energy. What unusual circumstances led a highly trained and valuable scientific person and/or journalist, who might have been earning several factors beyond this 1991 compensation today as an engineer or administrator, to accept in 2003 a completely substandard salary? The answer traces back to March 23, 1989, when an unusual announcement of what became known as "cold fusion" came from the University of Utah by world-class electrochemists Drs. Martin Fleischmann and Stanley Pons. This was the claim that a mysterious "excess heat"—a thermal power release far beyond the bounds of ordinary chemical reactions (and beyond the electricity that was input) was coming from electrochemical cells composed of palladium cathodes and heavy water-based liquid electrolyte. Also, it was claimed that nuclear products were being found in the cells, but with no deadly radiation-unthinkable for an allegedly purely chemical system of metal, glass, and water.

I did not, of course, believe that seemingly outlandish claim of Drs. Fleischmann and Pons at first, any more than did any other scientist, until much further checking and confirmation had come in. But as I carried out my duties at MIT, I began to observe something quite puzzling and disturbing: Amid the furor of press reports of confirmation attempts and failures in 1989-1991, I began to see that the evidence was inexorably building up to what looked to me like a large body of supporting evidence for a new phenomenon (or possible new class of phenomena) that might even have world-changing technological implications for a new form of energy that would be extremely beneficial for the

environment and the harmony of civilization. But at the same time I noticed that my then friends in the MIT hot fusion program (funded by the U.S. Government to the tune of tens of millions of dollars per year at MIT alone, and to the level of some \$17 billion or more in toto since the early 1950s), were reacting very negatively toward the cold fusion claims—even accusing Drs. Fleischmann and Pons of "possible fraud" and engaging in "scientific schlock." This, even as positive results of replications came in from around the world! I wrestled with this then puzzling behavior as I wrote my required pieces for MIT Tech Talk about what was the reaction of MIT scientists to the Utah claims. By the spring of 1991, I had finished a book, Fire from Ice: Searching for the Truth Behind the Cold Fusion Furor, which was published by the major mainstream publisher, John Wiley & Sons, writing work I had been doing on my own time.

Not that I had planned it this way, obviously, but this book led to considerable trouble for me-even though this large, prestigious publisher had nominated the book as one of only two of its works that year for the Pulitzer Prize for non-fiction (ironically, the other one was about Saddam Hussein and oil!). The first thing to happen was that a major cover story article by me about the status of cold fusion (a fair and balanced article), which had been accepted by the then editor and was scheduled to appear in MIT Technology *Review*, was cancelled due to the direct intervention by a person in the MIT Department of Physics who was a strong opponent of cold fusion—i.e. the article was censored into oblivion. Other events happened: In reaction to severe disappointments like this I was moved to announce that I had discovered egregious scientific fraud (performed on a Federal contract, no less) on the part of MIT hot fusion people in their so-called "failure" to reproduce the excess heat effect claimed by Fleischmann and Pons. The group had, in fact, found apparent excess heat in its experiment, but one of the sixteen authors on the final report to the U.S. DOE had shifted and manufactured the data to eliminate a positive result. Had this data been properly reported, the entire course of history would have been changed and there might never have been a need for a publication such as *Infinite Energy*. The 55-page account of this travesty is available free of charge in a downloadable pdf file from our website, www.infinite-energy.com.

In disgust and outrage, I resigned my Chief Science Writer position at MIT and spent years in utterly substandard earnings—working at one time as a junior-grade high school science and math teacher in Alton, New Hampshire, as a telephone order-taker for a computer products company in New Hampshire, and in many years making very little money at all because of no secure employment. In fact, for the first two years (spring 1995 to spring 1997) of the publication of Infinite Energy, which I and colleagues launched in desperation, because of the news blackout against cold fusion, I had no salary at all. I taught high school and worked as a telephone order-taker just to support the magazine-in other words giving my services for free to keep the magazine going. There are no serious profit-making commercial publications in which an editor, who does virtually all of the work at the magazine (except, of course, writing all of the articles), works for no pay. This was Infinite Energy circa 1995-1997.

Infinite Energy, indeed, should have started out as a non-profit organization. We started it as a for-profit, only because

our "eternal optimism" of those days suggested to us that when more scientists and potential supporters of the research learned the truth about the reality of the newly discovered cold fusion/low-energy nuclear reactions phenomenon, sales of subscriptions would accelerate and we would at least break even-perhaps even become profitable. We were far, far off the mark in that projection! We print a relatively constant 5,000 copies per bimonthly issue and there are now about 1,400 copies purchased of each issue from select newsstands—the rest of the magazines (about 1,300 others) are trashed by the distributor's magazine outlets after not being sold. The regular direct subscribership is in the range of 1,000 to 1,500. Of course, we have our website of free downloadable articles as well, which has a counter that now reads over 370,000 hits; a spin-off exclusively focussed on cold fusion, www.lenr-canr.org, has a large volume of hits too for downloading technical papers and some papers that have originally appeared in Infinite Energy.

Still, this is a major accomplishment—especially since the mainstream scientific establishment routinely ridicules what we write about. We have top quality scientists, engineers, technicians, and courageous generalists in our reading audience. People reading Infinite Energy may believe that the scientific data and arguments we present are mind-boggling but real—they are—but this does not keep the less-thanfanatical devotee in our camp. Most people are impatient: they want to see the Cold Fusion Age (or more generally the New Energy Age) break out as soon as possible and get rid of global gloom and depression. What a wondrous thing to realize that we now have proof that each gallon of ordinary water contains in it enough heavy hydrogen that when fused together to form helium in the cold fusion process that is the effective result of at least one form of confirmed "cold fusion" process—releases the equivalent of 300 gallons of gasoline. At one time, this secure knowledge was enough to warm this heretic's soul. Now it brings little joy; it seems like just one more astounding fact about Mother Nature over which the tyrannical establishment rides rough-shod.

Here's the fundamental problem with heretical publication—the human attention span in this media-saturated age. Many people are not prepared to either accept or believe that it is worth \$29.95 (domestic) or \$49.95 (foreign) per year to learn more details about the promises that have not yet been realized in robust technological devices. Of course, when such devices do come onto the market after the difficulties have been overcome, every magazine in the world will be forced to write about them and *Infinite Energy* will have served its purpose of helping to usher in the New Energy Age. At that point, the charitable purpose of *Infinite Energy*—to get the whole world thinking and acting about this matter— will have been served. I defy anyone to suggest a conventional commercial publication that has that as a literal goal: Ultimately to put itself "out of business"!

Who do we have to thank for this terrible circumstance that the American/British discovery of cold fusion has been marginalized—pushed to the side, ridiculed, and virtually starved out of existence for research funding? Answer: The scientific establishment, and its mainstream media organs, its lackeys that continue to ignore or disparage research into cold fusion/low-energy nuclear reactions and other forms of New Energy. All this came from the improper behavior of the initial DOE review panel which made its preposterous,

unethical rush-to-judgment in the autumn of 1989, influenced of course by vested academic interests in hot fusion and high energy physics such as at MIT and elsewhere. The two leading publications—Science (published in the U.S.) and Nature (published in the UK)—could turn the entire situation around if they agreed to fairly review and publish scientific articles in this area as we do, but they absolutely refuse to publish anything favorable about cold fusion. They have bought onto the preposterous story-line foisted on the world by arrogant academics at major institutions and agencies that cold fusion is not real, is "pathological science," etc. Since all the other mainstream publications, as well as the general news media, take their cues from Science and Nature, the expected extreme marginalization of the science has occurred. Therefore, it is up to Infinite Energy magazine—perhaps the largest and most respectable of the heretical science publications, which are most often only newsletters not available on newsstands-to attempt to keep alive and increase interest in these remarkable new forms of energy, which would so benefit humankind. That is why our purpose—even in the face of continuing losses that must be made up by contributions from benefactors and donors large and small—is indisputably charitable. No one involved in Infinite Energy has any illusions about commercial success as a for-profit publication. No commercial publication on Earth with years of relatively flat sales (but sales at newsstands are now increasing) could afford to keep its doors open. In this regard we have been de facto non-profit for years.

Look at what *Infinite Energy* and its heretic allies are up against—big dollars and big influence in the non-profit publishing field. Some easy internet research found this information about influential publications that are demonstrably opposed to or are ignoring cold fusion and other forms of new energy. Let me summarize and annotate what we found:

• Science Magazine (published weekly by the American Association for the Advancement of Science, the AAAS, 501c(3) issued, 1937). This is the largest and most influential circulation journal about science published in the U.S. A subscription is about \$125/year—and anyone can subscribe. Its prominent stories are regularly cited by virtually every newspaper and other science publication. (Whatever science subject is not treated by it—"on the fringe," as the mainstream likes to say-is not taken seriously by most other science journalists.) Science is very thick and weighty, filled with glitzy advertisements that bring in huge revenues to the AAAS; this certainly makes Science indistinguishable, in that sense at least, from almost any other commercial magazine. However, its content includes a substantial number of original scientific publications and review articles discussing those publications—distinguishing it by that technical content from the likes of Time magazine, as an example. Science's income in 2001 was \$84,047,717. Yes, Science is huge and powerful and wealthy. It allows the AAAS to have lavish annual meetings attended by thousands of scientists and journalists. Yet, this magazine has had a virtual news blackout about cold fusion ever since the early days of the controversy (1989-90). And in that period it published several scandalous, erroneous attacks against the science, which it has pointedly not retracted. Worse, it refuses to accept for review contemporary articles by cold fusion scientists or to even mention that such technical publications have appeared at scientific meetings and in other technical publications in Europe, Russia, China, or Japan. If *Science* magazine were doing its job responsibly with respect to the question of New Energy, there would by no need for a publication such as *Infinite Energy*.

• Physics Today (and many other technical physics publication published monthly by the American Institute of Physics (AIP), 501c(3) issued, 1941). This group of publications has rigorously blocked any reasoned discussion of the matter of cold fusion and many other physics-related New Energy issues. It has a website that for many years has hosted a weekly electronic column by its chief publicist, Professor Robert Park of the University of Maryland, whose column brings scathing ridicule against all who have been involved in cold fusion and the quest for New Energy. Park is regularly interviewed by other high-profile general news media, so his views about physics and many other matters—space exploration, missile defense, etc., unfortunately dominate public discussion. The income of AIP in 2000 was \$77,236,350. The magazine excludes reasoned discussion of cold fusion and other New Energy. Infinite Energy must try valiantly to buck the tide of negativity generated by the AIP and the AAAS-two nonprofit organizations that are not living up to their charters in the strictest sense.

•Science News (published weekly by Science Service, Inc., 501c(3) issued 1922). This is a thin, but large circulation magazine that is highly influential among science journalists. It offers journalistic summaries of scientific work that is published by Science, Nature, Physics Today, and many other technical journals. Its income in 2000 was \$11,620,843, making it a very powerful media outlet for science information. In the mid-1990s, when Infinite Energy was trying to get on its feet, we attempted to place an ad for our publication in Science News. The ad representative was delighted to help us get the ad ready for publication, but when the Science News editor-in-chief found out that we were a publication that treated cold fusion seriously, she rejected the ad. We were not allowed to advertise in *Science News* no matter what the ad said! Indeed, Science News does not cover cold fusion or other New Energy issues.

•American Scientist (published ten times/year by Sigma Xi, The Scientific Research Society, 501c(3) issued, 1943). This publication is particularly galling to me. I happen to have been elected to this Sigma Xi Society when I obtained my engineering doctorate from Harvard University School of Public Health. In this publication, which is excellent in many respects in reporting conventional scientific findings, you will look long and hard to find any mention of observations that are outside the mainstream paradigms. In fact, they have published at least one scathing attack against cold fusion, calling it "pathological science." Even more egregious and astounding, several years ago this publication, like Science News, refused permission to Infinite Energy magazine to advertise in its pages. [Annual income, 2001, \$7,280,225]

•Catalyst (previously called Nucleus) (published by Union of Concerned Scientists, 501c(3) issued 1974). This journal talks about energy and the environment, as Infinite Energy does, but this journal has never to our knowledge published an acknowledgement in any form that there are sciences and technologies that go beyond solar power, wind energy, and the like—i.e. New Energy. Furthermore, though this

journal has talked about high-energy transmutation of nuclear waste as one method of disposing of it, it refuses to acknowledge or mention that there are now low-energy nuclear reaction methodologies that have been tested which should be considered in dealing with the nuclear waste problem. [Annual income, 2001, \$8,834,439]

• E The Environmental Magazine (published bi-monthly by the Earth Action Network, Inc., 501c(3) issued, 1990). This journal talks about energy and the environment, but it has never to our knowledge published an acknowledgement in any form that there are sciences and technologies that go beyond solar power, wind energy, and the like—i.e. New Energy. In fact, a colleague friendly to E and to Infinite Energy asked E to cover some of what we write about, and E's editor refused. [Annual income, 2001, \$748,436]

•Earth Island Journal (published quarterly by the Earth Island Institute, 501c(3) issued, 1982). This journal talks about energy and the environment, but it has never to our knowledge published an acknowledgement in any form that there are sciences and technologies that go beyond solar power, wind energy, and the like—i.e. New Energy. [Annual income, 2001, \$4,548,330]

•Worldwatch (published bi-monthly by the World Watch Institute, 501c(3) issued, 1974). This journal talks about energy and the environment, but it has never to our knowledge published an acknowledgement in any form that there are sciences and technologies that go beyond solar power, wind energy, and the like—i.e. New Energy. [Annual income, 2000, \$4,028,674]

•Bulletin of the Atomic Scientists (published bi-monthly by the Educational Foundation for Nuclear Science, 501c(3) issued, 1950). This journal talks about energy and the environment, but this journal has never to our knowledge published an acknowledgement in any form that there are sciences and technologies that go beyond solar power, wind energy, and the like—i.e. New Energy. Furthermore, though this journal talks about high-energy transmutation of nuclear waste as one method of disposing of it, it refuses to acknowledge or mention that there are now low-energy nuclear reaction methodologies that have been tested which should be considered in dealing with the nuclear waste problem. [Annual income, 2001, \$1,145,424]

•Skeptical Inquirer (published bi-monthly by the Center for Inquiry, subgroup Committee for the Scientific Investigation of Claims of the Paranormal—CSICOP, 501c(3) issued, 1976). This highly influential organization actively attacks, usually by mockery and borderline slander, any and all suggestions that our present foundational scientific theories may be in need of significant modification. They have attacked low-energy nuclear reaction research, Dr. Randell Mills' theory and experiments in Classical Quantum Mechanics, various electromagnetic devices with claimed excess power characteristics, and anti-gravity experiments. All of these Infinite Energy covers objectively, with an open view about the validity of this or that experimental confirmation. [Annual income, 2000, \$1,076,565]

So, this is the publishing opposition we heretics face, all funded by tax-exempt "non-profit" organizations. *Infinite Energy's* purposes and activities are similar to these cited publi-

cations. It has a particular set of editorial viewpoints as these publications do, a view that is at odds with prevailing published information, because we believe we are at the vanguard of publishing information about a scientific revolution in progress. Our viewpoint primarily deals with the question of energy and the environment, but from the perspective that there are radically new forms of energy and science that will help us address more effectively the very problems that these other non-profit publications bemoan. These other publications ignore or attack the science and emerging technology that we discuss. Our purpose is to educate and to clarify, which is precisely what these other publications are doing in their own obstructionist and sometimes unethical way. *Infinite Energy* keeps scientific and other information flowing to New Energy researchers and interested citizens in over forty countries, despite its present small circulation. Our other activity is to seek funding that can be disbursed, in the form of scientific grants to woefully under-funded researchers who are not privileged to have the largess that government and some lavish non-profit groups grant to decidedly mainstream energy and science research. In the above listing of non-profit publications, we have not mentioned the many other mainstream environmental groups, annual donations to which total \$1 billion or more, and none of which show the slightest interest in New Energy. They have their publications too.

Since the topic of New Energy science and technology, which we believe is of overarching importance to human welfare, is being unfairly treated, it is our objective to bring truth and light to the subject. This is heretical scientific publication against the grain, a very tough path to be on these days.

Dr. Marcello Truzzi (1935-2003) Scourge of the Pseudoskeptics

Dr. Marcello Truzzi, a long time friend of *Infinite Energy*, who was a scholarly sociologist of the process of science and the investigation of scientific anomalies, died February 2 after a long battle with cancer. He had been a Professor of Sociology at Eastern Michigan University. He resided in Grass Lake, Michigan and was the Director for a group based in Ann Arbor, the Center for Scientific Anomalies Research. He was also a long-standing member of the Society for Scientific Exploration.

In the early 1970s, Truzzi founded a newsletter, *The Zetetic*, at Eastern Michigan University, whose focus was examining claims of what are generically called "paranormal" phenomena. It was later re-named *Zetetic Scholar*.

But Truzzi's passion was the more all-encompassing study of the reaction of society to anomalous phenomena such as cold fusion. I met Marcello in 1991 when he called to seek my opinions about cold fusion. He was one of the early signers of a petition we circulated to the U.S. Congress to re-open an investigation into the phenomena that the DOE had so quickly dismissed.

A remarkable twist in the biography of this former stage magician turned academic (with a family background of circus performers!) came in 1976. He was asked to co-chair the newly founded Committee on the Scientific Investigation of Claims of the Paranormal (CSICOP). Marcello had thought that the purpose of the group was to openly and fairly investigate paranormal claims and other scientific anomalies. He separated from CSICOP in 1977, he told me, when it became clear to him that it was heading strongly in the direction of being an advocacy debunking society.

As Paul Kurtz, CSICOP's chairman, recalled (*Skeptical Inquirer*, May/June 2003), "He wished our new Committee and its magazine to include both 'believers' and 'unbelievers,' but the Council thought that there were literally hundreds of magazines and groups worldwide devoted to the pro-paranormal viewpoint, while almost none were interested in exploring a skeptical scientific agenda." The claim by Kurtz that CSICOP has a skeptical scientific agenda is baloney, as Truzzi and many other observers of CSICOP's agenda of debunkery at all costs had determined. Whether its journal, *Skeptical Inquirer*, admits it or not, its iron-clad doctrine is to adhere in its sham "investigations" and polemics to what the current scientific establishment believes is possible and what is impossible—experimental data to the contrary be damned. Its position on cold fusion, as an example, ranges from egregious mockery to benign neglect—willful ignoring of the now overwhelming scientific evidence published in peer-reviewed and non-peer reviewed journals. Kurtz's obituary for Truzzi, true to form, marginalized him as "the skeptical gadfly."

Marcello Truzzi wrote in 1989: "Over the years, I have decried the misuse of the term 'skeptic' when used to refer to all critics of anomaly claims. Alas, the label has been thus misapplied by both proponents and critics of the paranormal. Sometimes users of the term have distinguished between so-called 'soft' and 'hard' skeptics, and I in part revived the term 'zetetic' because of the term's misuse; but I now think the problems go beyond mere terminology, and matters need to be set right. Since 'skepticism' properly refers to doubt rather than denial—non-belief rather than belief—critics who take the negative rather than an agnostic position but still call themselves 'skeptics' are actually pseudoskeptics and have, I believe gained a false advantage by usurping that label."

We shall very much miss such wise counsel from Marcello, whose enthusiasm was infectious and whose encyclopedic knowledge of anomalistics and its intrigues was remarkable.