

Phactum

Anyone who has the power to make you believe absurdities has the power to make you commit injustices.
— Voltaire

The Newsletter of the
Philadelphia Association for Critical Thinking
January 2009

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Webmaster: Wes Powers www.phact.org

Saturday, January 17, 2009 - In Search of Time

Time is at once intimately familiar and yet deeply mysterious. It is thoroughly intangible: we say it flows like a river -- yet when we try to examine that flow, the river seems reduced to a mirage. No wonder philosophers, poets, and scientists from Aristotle to Einstein have grappled with the enigma of time for centuries.

The mystery of time has captivated science journalist **Dan Falk**, who sets off on an intellectual journey in his latest book, *"In Search of Time: The Science of a Curious Dimension"* (St. Martin's Press, November 2008). In this illustrated talk, Dan will discuss some of the most intriguing aspects of time: how our ancestors first learned to measure it, how we suspect it -- and the universe -- began, what the "end of time" may hold for us, and a brief look at the physics of time travel and the paradoxes it seems to entail.

Dan Falk has written about science for the Globe and Mail, the Toronto Star, The Boston Globe, The Walrus, SkyNews, Astronomy, Sky and Telescope, and New Scientist, and has been a regular contributor to the Canadian radio programs "Ideas" and "Quirks and Quarks" on the CBC radio network. His awards include a Gold Medal for Radio Programming from the New York Festivals and the Science Writing Award in Physics and Astronomy from the American Institute of Physics. His first book, "Universe on a T-Shirt", won the 2002 Science in Society Journalism Award from the Canadian Science Writers' Association. He lives in Toronto.



We expect to conclude with a book signing of his coming new book, *"In Search of Time: The Science of a Curious Dimension"*. See Page 4 for book description. Dan Falk's website is <http://www.danfalk.ca/>



The PhACT Council

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Harry Rothwell, Becky Strickland

Phactum is, in theory, printed 6 times a year and is the main propaganda organ for the Philadelphia Association for Critical Thinking.

If you are not a supporting member/subscriber we invite you to become one. \$15 for a one year membership to PhACT with email Phactum subscription. \$25 for US Mail subscription. \$10 for students, email only. Donations are welcome.

Send letters of rebuttal, ideas, short essays, poetry, opinion pieces, complaints, and lavish praise to Ray Haupt, Phactum editor, at phactpublicity@aol.com.

PHACT CALENDAR

Dr. David Cattell, Chairman of the Physics Department of Community College of Philadelphia hosts meetings of **PhACT** - at 2:00 PM on the third Saturday of most months at Community College of Philadelphia, 17th and Spring Garden Streets, in room S2-03 of the Winnet Student Life Building, the round building on 17th Street just south of Spring Garden Street. **Meetings are free and open to the public unless otherwise noted.** Parking is free at all PhACT events at CCP. Enter the college parking lot on 17th Street which is one way south bound. At the meeting be sure to get a free parking voucher from Dr. Cattell. This meeting site is handicap accessible.



Saturday, January 17, 2009 - Science journalist **Dan Falk** will discuss some of the most intriguing aspects of time: how our ancestors first learned to measure it, how we suspect it -- and the universe -- began, what the "end of time" may hold for us, and a brief look at the physics of time travel and the paradoxes it seems to entail. See page 1 for more details.

Saturday, February 21, 2009 - **Dr. Barrie R. Cassileth** will discuss **Integrative Oncology: Complementary Therapies and Botanicals in Cancer Care.** **Dr. Cassileth** is Chief, Integrative Medicine Service at Memorial Sloan-Kettering Cancer Center, New York. She actively works with the FDA and other federal agencies in the nearly impossible task of controlling quackery in cancer treatment.

Saturday, March 21, 2009 - TBA

Friday, January 9, 2009 at 8 PM. Delaware Valley Mensa General Membership Meeting. Program TBA. The General Membership Meeting will be held at the Police Administration Building, 750 Race Street, Philadelphia, PA. This meeting is DVM's only activity specifically open to the public, so feel free to invite your friends and relatives. Free. <http://dvm.us.mensa.org/>

Thursday, February 5, 2009 at 6:00 pm. Univ. of Penna. Museum. **The Score: How the Quest for Sex Has Shaped the Modern Man**. For some, the goal of the dating game is to score. Men have been developing their pickup game for centuries, but do we know how it came to be the art that it is today? Join the young Friends of the Penn Museum and Faye Flam, author of the Philadelphia Inquirer column "Carnal Knowledge," for an investigation of the evolution of sex. Booksigning, cocktails, and mingling to follow. Cash bar. \$10 for non-members; \$5 for Museum members (includes one complimentary drink). Information: 215/898-5093

Thursday, February 26, 2009 - Program from 4-7 PM, Lecture at 5:30. Weeknights at the Wagner. At the **Wagner Free Institute of Science**, 1700 West Montgomery Avenue, Philadelphia, PA 19121 Guest Speaker, Dr. Alan Mann, Princeton University. **"The Origin of Humanness"**. Anthropologist Dr. Alan Mann will join us as part of the Year of Evolution. He will speak about the beginnings of uniquely human behaviors in our evolutionary ancestors by examining prehistoric art, ornamentation, and other evidence. Free. ph 215-763-6529 www.wagnerfreeinstitute.org

Friday, February 27, 2009 - Asperger's Disorder & Autism. The New England Educational Institute will present a one day seminar for educators, psychologists, social workers, counselors, physicians, children's services providers, and family members who

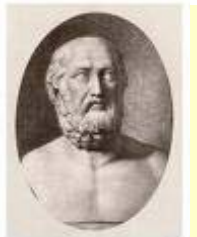
work with individuals with Autism Spectrum Disorders. The presenter is Dr. Celine Saulnier, the Training Director for the Yale Autism Program at the Yale Child Study Center. Dr. Saulnier supervises and conducts diagnostic evaluations for both the Infant and Toddler Clinic and the School-aged Developmental Disabilities Clinic. At the Ramada Philadelphia Airport in Essington, PA. Seminar tuition is \$149. For more information see www.neei.org on the internet or call 413-499-1489 x 1.

Now through April 19, 2009 open daily at The Academy of Natural Sciences. 19th Street and the Benjamin Franklin Parkway in Philadelphia. *"Hadrosaurus foulkii: The Dinosaur That Changed the World"*.

This year marks the 150th anniversary of the scientific description of *Hadrosaurus foulkii*. This dinosaur occupies a singular place in the history of paleontology. At the time of its description by Joseph Leidy in 1858, *Hadrosaurus* was the world's most completely known dinosaur. When the skeletal mount, a collaboration of Leidy with British sculptor Benjamin Waterhouse Hawkins, was put on display at the Academy in 1868, it was the first dinosaur skeleton ever mounted and would serve as a model for future dinosaur mounts in museums everywhere.

www.ansp.org (215) 299-1000

Every Monday, except holidays, at 7:00 PM . **Socrates Cafe** is moderated by PhACT member Sam Frederick at the Springfield Township Library at 1600 Paper Mill Road, Wyndmoor, PA 19038. This discussion group is free and open to the public. Bring an open mind and positive attitude.



PHACT CALENDAR

Saturday, March 28, 2009 at 1:00 PM, Westbrook Lecture 2009, at the **Wagner Free Institute of Science**, 1700 West Montgomery Avenue, Philadelphia, PA 19121
the **Dr. May R. Berenbaum** will discuss "**BSI**" -- **The Case of the Disappearing Bees.**

The "pollinator crisis" -- the widespread decline in the viability of animals that transport pollen and allow most of the planet's flowering plants to reproduce -- may lack marquee appeal as a form of global change, but it has real potential for profoundly altering the terrestrial world. In the U.S. nearly 100 plants rely on a single pollinator, the honey bee, to survive and reproduce.

Over the past year, the mysterious disappearance of one-third of America's honey bees, due to what has become known as colony collapse disorder, has focused attention on how little is known about U.S. pollinators and how dependent we are upon them. On March 28th, Dr. May Berenbaum, Professor and Head of the Department of Entomology at the University of Illinois at Urbana-Champaign will discuss the pollinator crisis, the plight of the honey bees, and advances in entomology that provide hope for the future of America's bees.

Dr. May Berenbaum has served as the head of the Department of Entomology at the University of Illinois at Urbana-Champaign since 1992. Her research interests are in the area of insect ecology and for over three decades she has studied the ways in which both naturally occurring and synthetic chemicals affect the distribution and abundance of plant-feeding insects. She is also devoted to fostering scientific literacy and has authored numerous magazine articles, as well as four books about insects for the general public. In recognition of her work, she has been elected to the National Academy of Sciences and the American Philosophical Society.

The Museum will be open from 12:00 - 4:00 PM. Talk begins at 1:00 PM

Calling All Astronomers! Rittenhouse Astronomical Society Monthly Meetings! Bring all of your out-of-this-world questions! Join The Rittenhouse Astronomical Society the second Wednesday of each month at 7:30 p.m. in the Fels Planetarium. The society offers all persons an opportunity to participate in the activities of an astronomical group at the laymen's level. They aim to spread knowledge, awareness and enjoyment of astronomy and astronomical issues. It is a popular science club that keeps its members up-to-date on the latest developments. No experience is necessary to attend the FREE meetings. Come with your astronomy questions!
www.rittenhouseastronomicalsociety.org/

The **PhACT Calendar** is open to members and non-members who wish to announce meetings and events of other groups of which they are interested or affiliated. These events should be of some general interest to the Skeptical or Scientific community and should be within a reasonable radius of Philadelphia. Send submissions to the editor at phactpublicity@aol.com. Keep the announcements brief. Space is limited and insertions will be made on a first come-first served basis after the needs of PhACT are accomplished.

Wagner Free Institute of Science

1700 West Montgomery Avenue
Philadelphia, PA 19121
ph 215-763-6529 www.wagnerfreeinstitute.org

Spring 2009 Courses

Courses sponsored by the Wagner Free Institute of Science are free and open to the general public. They are taught at the introductory college level.

Grasses, Rushes, and Sedges, Professor Karen Snetselaar. Monday, January 12, 2009, beginning at 6:30 PM. 6 Mondays (No class Monday, January 19, 2009). Pennsylvania Horticultural Society, 100 N. 20th Street. This course will provide a general overview of grasses and some of their relatives. **This course requires preregistration. To preregister, call 215-763-6529, ext. 23, beginning Monday, November 17, 2008.**

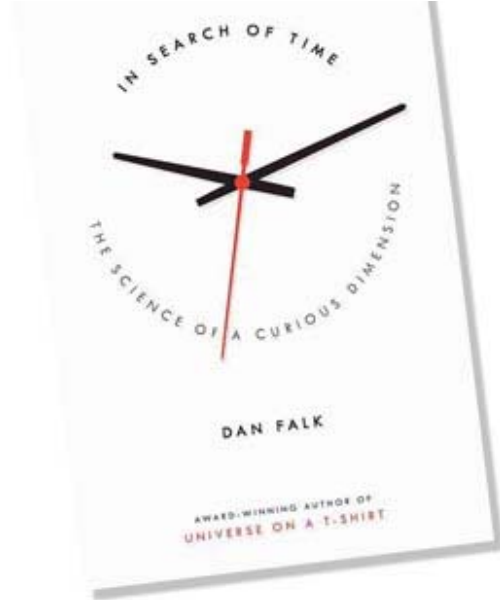
Genetics in the Wild: Wildlife Conservation and Genetics, Professor Mary Beth Davis. Wednesday, January 14, 2009, beginning at 6:30 PM. 7 Wednesdays. Independence Branch of the Free Library, 18 S. 7th Street. This course will explore how genetics can be used to aid conservation efforts and will examine studies of endangered animal species and "recovered species." **No preregistration required.**

Field Paleontology, Professor William B. Gallagher. Saturday, January 31, 2009, beginning at 10:15 AM. 6 Saturdays. University of Pennsylvania Museum of Archaeology and Anthropology, 33rd and Spruce Streets. This course will discuss the methods of modern paleontological excavation techniques and demonstrated by a series of case studies of fossil excavations. **No preregistration required.**

Park, Cemetery, and Garden: The Landscapes of Philadelphia, Professor Michael J. Lewis. Monday, March 23, 2009, beginning at 6:30 PM. 6 Mondays. Pennsylvania Horticultural Society, 100 N. 20th Street. This course will examine the landscape tradition in Philadelphia, covering such topics as Quaker attitudes toward the useful and practical arts, the role of parks in promoting public health and safe drinking water, and the development of the modern public cemetery. **This course requires preregistration. To preregister, call 215-763-6529, ext. 23, beginning Monday, November 17, 2008.**

Spring Flora of Fairmount Park, Professor Alfred E. Schuyler. 4 Saturdays, April 18 to May 9, 2009, from 10:00 AM to 1:00 PM. This is a field class. We will visit four sites in different areas of the city, all part of Fairmount Park, and identify the plants we encounter. **This course requires preregistration and is limited to 25 students. To preregister, call 215-763-6529, ext. 23, beginning Monday, November 17, 2008.**

To order a copy of the catalog and a full description of courses, please email info@wagnerfreeinstitute.org or call 215-763-6529, ext. 21.



In Search of Time

The Science of a Curious Dimension
by Dan Falk

Thomas Dunne Books Published: November 2008
ISBN: 978-0-312-37478-5 ISBN-10: 0-312-37478-X
Hardback 352 pages \$25.95

Available at Barnes & Nobel, Borders, and other fine book stores

Time surrounds us. It defines our experience of the world; it echoes through our every waking hour. Time is the very foundation of conscious experience. Yet as familiar as it is, time is also deeply mysterious. We cannot see, hear, smell, taste, or touch it. Yet we do *feel* it—or at least we *think*

we feel it. No wonder poets, writers, philosophers, and scientists have grappled with time for centuries.

In his latest book, award-winning science writer Dan Falk chronicles the story of how humans have come to understand time over the millennia, and by drawing from the latest research in physics, psychology, and other fields, Falk shows how that understanding continues to evolve. *In Search of Time* begins with our earliest ancestors' perception of time and the discoveries that led—with much effort—to the Gregorian calendar, atomic clocks, and “leap seconds.” Falk examines the workings of memory, the brain’s remarkable “bridge across time,” and asks whether humans are unique in their ability to recall the past and imagine the future. He explores the possibility of time travel, and the paradoxes it seems to entail. Falk looks at the quest to comprehend the beginning of time and how time—and the universe—may end. Finally, he examines the puzzle of time’s “flow,” and the remarkable possibility that the passage of time may be an illusion.

Entertaining, illuminating, and ultimately thought provoking, *In Search of Time* reveals what some of our most insightful thinkers have had to say about time, from Aristotle to Kant, from Newton to Einstein, and continuing with the brightest minds of today.

**"People can travel," said Albert Einstein,
"The speed of light in a gadget of mine.
When my in-laws go fast
Back into the past,
Relatively speaking, they won't be mine."**

**There was a young lady named Bright,
Whose speed was far faster than light;
She set out one day
In a relative way,
And returned on the previous night**

Letters

Editor: PhACT Lending Library Looking for New Librarians

I have been the keeper of the bulk of the PhACT lending library since Bill Wisdom moved to smaller quarters a year ago. Now I am moving, and would like to shed some of the load to others.

Would you like to own a few books on skeptical topics? There is no need to take the whole pile; if there are a few books, or even one or two, that pique your interest, I would be happy to give them new homes.

See the list of books at <http://phact.org/library.php>. There are a small few that I wish to keep, but most of them are available for others to take.

Please contact me if you can help. If I get no takers, I will be donating a large number of the books to my local library.

Wes Powers

215-245-6799

wes@wespowers.com

Editor: A quick note to give Phactum readers notice of the Sense About Science publication "I've got nothing to lose by trying it", a guide to weighing up claims about cures and treatments for long-term conditions.

Online ads and chat-room conversations testify to the 'incredible' benefits of new medicines and treatments selling the empty promise of curing the incurable. The guide is being published by Sense About Science, with the Multiple Sclerosis Society, Motor Neurone Disease Association, Alzheimer's Society and Parkinson's Disease Society, and explains how to tell the beneficial from the bogus in the face of the miracle cure stories, new wonder-drugs and breakthrough therapies that are increasingly promoted.

You can download a free copy from www.senseaboutscience.org. If you have any ideas for getting it sent far and wide, blogs, places to review or write about it, we'd love to hear from you. If you are able to speak on this subject, we'd be glad to add you to the list of people we can call on during the publicity.

Dr Leonor Sierra

Scientific Liaison

Sense About Science

25 Shaftesbury Avenue

London

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Registered Charity No. 1101114

www.senseaboutscience.org

Editor: Regarding the Phillies stats item, I looked for a possible explanation of the "67.7% versus 68.5%" discrepancy (odds of winning the series after an initial win). Probably MLB derived the 68.5% number from actual data - which approach a statistical expectation in the long run. The 67.7%

number is the random statistical chance.

However, there may be another issue here at work here. The chance of a specific team winning game one is not 50/50. The better team has a higher than 50% chance of winning game one. Having won that game, they continue to be the favorite - and therefore have a higher than statistical chance of winning the series (68.5% versus 67.7% ?!). The key here is that these events are not random, therefore the odds are not completely determinable by statistics. In a given series, two very close teams may indeed each have a 50% chance of winning. With more disparate talent, the odds will diverge. I would expect that the 68.5% vs. 67.7% discrepancy would be even greater were it not for the fact that sometimes the underdog wins game one. I would also expect greater divergence with individual sports compared with team sports.

It's been a while since I studied stat - so if I'm way off the mark, please don't publish this! If the point is well taken, feel free to do so!

Bill Pastor

Blue Bell, PA

Editor: (*On the poem by Tom Napier about JSE, Phactum, November 2008*) But my climate paper in JSE was cited by Jacques Gordon: <http://motorage.search-autoparts.com/motorage/Freeze+Frame/Freeze-Frame-Guilty-but-of-what/ArticleStandard/Article/detail/528336>

And: http://www.dmoz.org/Society/Issues/Environment/Opposing_Views/Climate_Change_Skeptics/

And by Anthony Watts: <http://wattsupwiththat.com/s=climate+change+reexamined>

Joel Kauffman, PhD

Berwyn, PA

Editor: I've been reading the debate over what you describe as "getting into religion bashing", across the past few months of Phactum. It has been fascinating. Both sides of the debate have made good points, regardless of which position one favors.

Sadly, Tom Napier and Don Baldino made a serious blunder in their critical thinking skills. In Baldino's "Appeal, Part II", Nov./Dec. 2008, he concedes, "Sometimes it is possible to prove a negative." He then offers the Epicurean argument to demonstrate that God has contradictory attributes. His biggest error, though, is when Baldino proclaims that such contradiction proves that God is "impossible". Sorry, Don, but that is a classic non sequitur. The two attributes mentioned in the Epicurean argument are certainly contradictory with one another, but the argument has no bearing on the "possibility" of there being a God, because there's no logical link demonstrating that the stated attributes actually belong to the particular God under discussion, let alone other possible Gods.

This offers a good example of why a negative cannot be "proven". There are an infinite number of possibilities within the set of "what is unknown", and no matter how ex-

haustively one tries to cover those possibilities, there's always room for some bright fellow to come along and say, "But you haven't proven that such and such couldn't be true! You don't KNOW that its not so!" An argument to ignorance never has logical validity. Yet Baldino concedes just such an argument, perhaps in an attempt at conciliation with Napier.

Napier, in the cover article of the Oct. 2008 issue, wrote, "Don quotes as writ, 'No one can prove a negative'. Why on Earth not? If something's existence would produce obvious effects which, in fact, are not observed, the alternatives are: We were incorrect in ascribing the effect to the entity in question or, The entity does not exist." This sounds clever enough on its surface, but it's a falsifiable statement because it ignores the possibility of other reasonable explanations, among them being: a.) We lack the ability to detect the presumed effect as it occurs, and b.) There are others, as well. The point is that Napier has offered a false dichotomy in an example where there are numerous other reasonable explanations. The river of causation can have many tributaries, as well as a wide delta of possible effects!

So no, we cannot prove that there ISN'T any "Intelligent Designer" of Life, and/or the observed Universe. However, our inability to prove the negative does not necessarily make the opposing proposition true (specifically, that some Intelligent Designer must therefore exist, and have been responsible for all or some of the Creation!)

This is why our knowledge (as described by the Latin term "*scientia*") is based on the slow, tedious accumulation of what is PROVABLE about the attributes of the observable (or theoretical) Universe. The processes of science have evolved (and continue to evolve) imperfectly, yet they remain far more reliable than any other process of learning which has ever been proposed or tested.

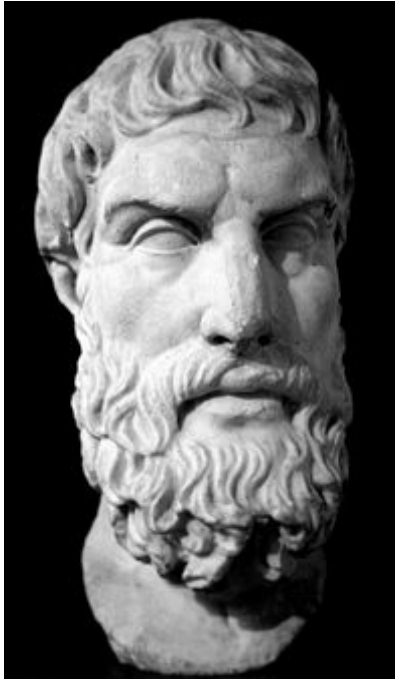
Let's not lose track of the principles of Reason and Rationalism as we debate whether or not to debate with the purveyors of Mysticism, "revealed wisdom", and supposed religious Authority. I'm sure THEY will provide plenty of unreasonable and irrational arguments all by themselves.

Paul Schlueter, III
Dallas, PA

Editor: This is a response to Tom Napier's "poetic zinger" entitled "Ahead of the Crowd", which seeks to denigrate JSE, and which appeared in the Nov.-Dec. 2008 issue of Phactum.

(Aw, come on Tom, you knew I wouldn't let that one slide!)

There's a well-known cliché in the arenas where PhACT and SSE compete that goes like this: "It only takes one white crow to prove that all crows are not black." Tom's parting line was "The JSE is never cited", with the word "never" in italics yet! Again: Aw, come on Tom, you know better than that! "Never say never!"



Epicurus (341 - 270 BC) was born on the island of Samos. He studied philosophy under the successors of Democritus and Plato, and eventually founded his own school and community at the 'garden' in Athens. Epicureanism, a philosophy of refined and calculating pleasure-seeking (in contrast to the rival creed of Stoicism with its watchword of 'duty'), flourished for centuries, spawning colonies and followers throughout Europe, only to fade with the coming of Christianity. Thomas Jefferson was a self-proclaimed Epicurean.

It didn't take PhACT member and long-time friend, Joel Kauffman, long at all to initiate this response of mine. You see, Joel is a "Full Member" of SSE. I am only a lowly "Associate Member" (but also an appointed officer of the Society). BTW, there are only a few other PhACT members who MIGHT qualify to be Full Members of SSE.

Joel's many contributions to the pages of JSE have been cited all over the place. He sent me 11 citations to choose from, but since many of them relate to the same paper in JSE, I cherry-picked what I felt were the best ones for each of the two JSE papers involved:

1) AT&T Worldnet Service - Directory An essay, titled "Climate Change Reexamined" published in the Journal of Scientific Exploration, by Joel Kauffman in 2007, tries to show the flaws in ...

attdslservice.att.net/cgi-bin/webdrill?catkey=gwd/Top/Society/Issues/Environment/Opposing_Views/Climate_Change...

2) EasyDiagnosis Medical Expert System Programs: Online Diagnosis ... Should you Take Aspirin to Prevent Heart Attack? By Joel M. Kauffman, PhD. Original publication: J. Scientific Exploration 2000:14(4):623-641. Abstract ...

easydiagnosis.com/articles/aspirin.html -

And by the way, I too have had rather surprising success with numerous citations on the Internet of my 3 essays in JSE, but I'll mention only one. My essay entitled, "The Vardogr, Perhaps Another Indicator of the Non-Locality of Consciousness", was translated into Norwegian and reprinted, with permission, in "Parapsykologiske Notiser"

(the journal of the Norwegian Parapsychological Society) by its editor, Jon Mannsaker. Owing to my inability to read Norwegian, I never requested a copy of their journal.

And, of course, there are the hundreds and hundreds of citations of the hundreds of "Research Articles" and "Essays" published in JSE over its 21-year history, but we'll leave the research on them to Tom.

And here's a closing barb for Tom: Just recently, I re-

ceived an formal invitation via snail-mail to re-join MENSA. I was a member from about age 30 for about 14 years. That was about 28 years ago (I guess they must need my dues!) I'll make a copy of that invitation for you, Tom, if you wish. I let my membership lapse because MENSA had begun to bore me. I have never been bored by SSE, of which I remain a member after 17 years.

L. David Leiter
Willow Grove, PA

PS: A suggestion: PhACT should subscribe to JSE. After all Joel and I subscribe to Phactum, and fair is fair! I bought a subscription for PhACT in Tom's name for two years way back when, hoping PhACT would get the idea, but it was all for naught! Just think of all the "cutting critiques" that could produce for Phactum. Ray would have all the material he could ever dream of!

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Various Ruminations

Collected/written by Ray Haupt
(with help from others)

The "I thought vibrators were something else Department"

In the November 4, 2008 edition of Consumer Health Watch, Dr Stephen Barrett reports:

Quack device manufacturer issues FDA-prompted recall.

In response to FDA pressure, Vibe Technologies of Greeley, Colorado has issued a Class I recall of the Vibrational Integrated Bio-photonic Energizer (VIBE) Machine Multi-Frequency Field Generator, a device marketed with far-fetched claims that it can improve health and cure a long list of serious diseases by correcting alleged problems with cell vibration. [Barrett S. QuantumPulse (V.I.B.E.) device marketed with far-fetched claims. Quackwatch, Nov 4, 2008] <http://www.devicewatch.org/reports/vibe/vibe.shtml>

The recall notice stated that "Class I recalls are the most serious type of recall and involve situations in which there is a reasonable probability that use of the product will cause injury or death." <http://www.devicewatch.org/reports/vibe/recall.shtml> (FDA action was triggered in part by the death of a patient who relied on the device rather than effective treatment.) All purchasers of the device were sent a certified letter stating that they should stop using or promoting the product as a medical device and to destroy any VIBE literature making medical claims. Class I recalls involving quack devices are rarely done. Unfortunately, it is not clear whether the recall will actually benefit consumers because the device can still be marketed and used as long as claims that the FDA can detect are kept vague and do not explicitly promise to prevent or cure diseases. The company's Web site still has a practitioner directory. Some are licensed as health professionals; others are not. Some operate salons where the

device is used to "mobilize toxins" and an "ionic foot bath" device is claimed to take the toxins out of the body.

Quackwatch and Dr. Barrett need your help. If you haven't already done so, please read <http://www.ncahf.org/digest07/07-48.html> and send a contribution to support his valuable work.

The Wicked Vicar

Get a load of this from the Telegraph, a UK publication, October 31, 2008.

A vicar attended hospital with a potato stuck up his bottom - and claimed it got there after he fell on to the vegetable while naked.

The clergyman, in his 50s, told nurses he had been hanging curtains when he fell backwards on to his kitchen table. He happened to be nude at the time of the mishap, said the vicar.

I sure hope that it was not a freshly baked potato.

PhACT has a new member

who I shall leave nameless unless he chooses to identify himself. He proclaims himself to be a Luddite. That is a word familiar to me but I did not know the meaning. A Luddite is a person who eschews new technology. Actually, he is not really a Luddite. It is just that he does not have a computer and being unwired does not mean that he is unhinged. Furthermore he has given up semaphore in favor of the telephone. Thankfully our new member does use paper technology; stone tablets being so difficult to fold and get in the mailbox.



The Leader of the Luddites, engraving of 1812

I welcome him and invite his participation in PhACT and Phactum.

January 17 Birthday Boys

On this day in history two well known men with Philadelphia connections were born, neither of whom are expected to attend PhACT's January 17, 2009 meeting.

Benjamin Franklin is the older of the two, born in Boston in 1706, the 15th of 17 children of a candle maker, Josiah Franklin. Franklin's mother was Abiah Folger, Josiah's second wife, who bore 8 children. It was the Folger family who in the 19th century founded the Folger Coffee Company. Benjamin moved to Philadelphia and did well for himself as a printer, statesman, journalist, scientist, inventor, and founder of many civic organizations. He was a signer of the Declaration of Independence and helped formulate the US Constitution. Franklin died in 1790 and was interred at Christ

Church after what some might describe as a successful career. He would have been 303 years old on January 17, 2009. Despite being dead, Franklin is a staff writer for Phactum. See page 17.

Alphonse Gabriel "Al" Capone was born in Brooklyn, NY on January 17, 1899, the 4th of 7 sons and 2 daughters of Italian immigrant parents, Gabriel and Theresa Capone, had immigrated to the United States six years before from Castellammare di Stabia, sixteen miles from Naples, Italy.



Photo courtesy of Mario Gomes

PHILADELPHIA MUG SHOT

Al Capone's Philadelphia mug shot. 1929.

Al moved to Chicago in 1919 at age 20, fugitive from a psychopathic killer, Bill Lovett, the chief lieutenant of an Irish gang whose subordinate Capone had

pounded into a hospital case during a bar brawl. Al did well in Chicago as a Prohibition supplier of alcoholic beverages, and as a participant in a few murders, in particular of gang rivals Dion O'Banyon and Hymie Weiss. Capone was the chief architect of the St. Valentine's Day Massacre of 1929.



Al Capone's cell at Eastern State Penitentiary where he received no special privileges.

In 1929 Al decided to move to Philadelphia and 16 hours after arriving in the City of Brotherly Love was arrested for illegal gun possession. He spent nine months at Eastern State Penitentiary where he is said to have received no special privileges and was a model prisoner.



Mr. Capone died in 1947 and is now buried at Mt. Carmel Cemetery on the West Side of Chicago. Al had a certain fondness for Philadelphia and because PhACT meetings are typically held just a few blocks away from Eastern State Penitentiary he has agreed, in spite of his present circumstances, to organize a more muscular fund raising effort to help facilitate special projects and lectures of interest to skeptics and scientific minded individuals. Al will happily help you donate to our cause.

FDA urged to stop sale of homeopathic flu product.

Dr. Stephen Barrett has asked the FDA to stop the sale and initiate a Class I recall of "Influenzinium," which Washington Homeopathic Products recommends taking throughout the flu season.

<http://www.homeopathyworks.com/jshop/product.php?xProd=8279>

The company's Web site states that the product is made by repeatedly diluting and shaking a flu shot dose until it reaches a homeopathic concentration of "200C." (At this "concentration," no molecules of the original vaccine remain.) Barrett's complaint to the FDA expressed concern that widespread use of such a product instead of real flu protection can result in unnecessary death.

But This Isn't Kansas, Toto

Evolution has been removed from the national school curriculum in Romania in a move which, pressure groups argue, distorts children's understanding of how the world came into being.

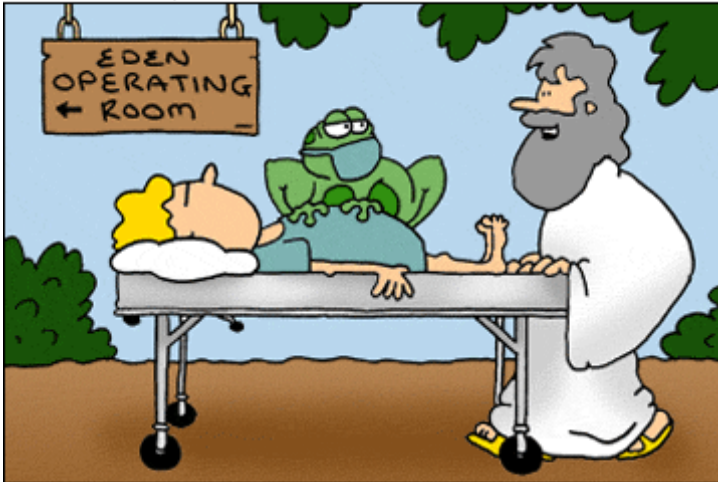
The theory of the Origin of Species and the evolution of humans is no longer present in the compulsory curriculum, through a nationwide decision made under the previous Government in 2006. Before the change, Darwin's theory was taught to pupils aged 18 or 19 years old. This was also in the curriculum during the Communist period of dictator Nicolae Ceausescu.

Meanwhile, in religious classes, pupils are taught that the world was created in seven days and God made plants on the

Well, evolution is a theory. It is also a fact. And facts and theories are different things, not rungs in a hierarchy of increasing certainty. Facts are the world's data. Theories are structures of ideas that explain and interpret facts. Facts do not go away while scientists debate rival theories for explaining them. Einstein's theory of gravitation replaced Newton's, but apples did not suspend themselves in mid-air pending the outcome. And human beings evolved from apelike ancestors whether they did so by Darwin's proposed mechanism or by some other, yet to be discovered. [...] Evolutionists make no claim for perpetual truth, though creationists often do (and then attack us for a style of argument that they themselves favor). In science, "fact" can only mean "confirmed to such a degree that it would be perverse to withhold provisional assent." I suppose that apples might start to rise tomorrow, but the possibility does not merit equal time in physics classrooms.

— *Stephen Jay Gould, "Hen's Teeth and Horse's Toes"*

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Thanks to Marnie (See Genesis 2:7-25)

05-25-2007

I APPRECIATE YOUR ASSISTANCE DOCTOR FROG, AND YOUR IDEA TO USE ONE OF ADAM'S RIBS TO MAKE WOMAN, OR TO "RIB IT", AS YOU SO CLEVERLY PUT IT, WAS SPECTACULAR

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third day and the sun on the fourth. Textbooks claim the first man was Adam, who was 'made of ground', and that Eve, the first woman, was made from one of her husband's ribs.

Don't expect many high technology imports from Romania in the next few decades, but they do make great pastrami.

Here is a website for this story.

<http://seti.sentry.net/archive/bioastro/2007/Dec/0014.html>

Vaccine fears

Becky Strickland reports this item from *New Scientist*, December 6, 2008.

"In the UK, measles is becoming more common among children whose parents shunned the MMR vaccine following now discredited claims that it causes autism. Last year's total of 990 cases in England & Wales had already been surpassed by the end of October, when 1049 cases had been recorded for 2008."

OK, folks. You shunned vaccine and your kid got measles. Are you happy now?

Pediatrics editorial blasts "Dr. Bob" Sears.

Two staff members of the Vaccine Education Center (Children's Hospital of Philadelphia) have issued a stinging rebuke of Robert Sears, M.D., author of *The Vaccine Book: Making the Right Decision for Your Child*. The editorial abstract notes: "Sears' book is enormously popular, having sold >40000 copies.

At the back of the book, Sears includes "Dr Bob's Alternative Vaccine Schedule," a formula by which parents can delay, withhold, separate, or space out vaccines. Pediatricians now confront many parents who insist that their chil-

dren receive vaccines according to Sears' schedule, rather than that recommended by the American Academy of Pediatrics, the Centers for Disease Control and Prevention, and the American Academy of Family Physicians. This article examines the reasons for the popularity of Sears' book, deconstructs the logic and rationale behind its recommendations, and describes how Sears' misrepresentation of vaccine science misinforms parents trying to make the right decisions for their children."

Sears's Web site states that he "has a particular passion for helping parents understand childhood vaccines and the options open to them in choosing the safest possible vaccine schedule for their child." The editorial points out, however, that "spacing out" the shots will increase the time during which children are susceptible to vaccine-preventable diseases. [Offit P, Moser CA. The problem with Dr. Bob's alternative vaccine schedule. *Pediatrics*, Jan 2009]

<http://pediatrics.aappublications.org/cgi/content/full/123/1/e164>

Co-author of that article, Dr. Paul Offit, was the PhACT speaker at the February 2008 meeting.

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November 2008 Meeting Report

By Becky Strickland

The recovered memory debacle of the late 1980's to mid 1990's is a particularly egregious example of illogical, uncritical thinking. On November 15, Dr. Pamela Freyd, psychiatrist and executive director of the Philadelphia based False Memory Syndrome Foundation*, discussed the history and present status of recovered memories and described how memories are made.

The movement began with an explosion of child sex abuse accusations primarily against parents of adult children and against child care workers. In the majority of cases the accusations involved suddenly remembering elaborate episodes of abuse that were bizarre beyond credibility and often followed extensive coaching, sometimes badgering of claimants, by therapists and law enforcement personnel. Those who resisted believing the recovered memories were told 'the proof of the abuse is that you forgot it,' a frightening statement.

In spite of no physical evidence to support charges, many innocent people went to jail, some with very long sentences. The situation was fueled by a few highly publicized cases involving Hollywood celebrities as claimants.

The falsely accused vigorously denied the charges but were told they were 'in denial'. As one father stated "If you didn't do something, wouldn't you deny doing it??" Those with the resources to fight back began suing the therapists for malpractice. The most famous of these cases involved a sales executive from the Mondavi Winery who was accused by a daughter of raping her and the family dog. The case, supported partly by her treatment with 'truth serum', dragged on for years. Although he was successful, he was only rewarded \$500,000, not much compensation for losing his wife and family, all of whom believed the daughter.

Eventually more clear thought prevailed. To believe recovered repressed memories, one must believe that it is possible to forget years of horrific abuse and disbelieve the mounting evidence, much of it provided by Dr. Elizabeth Loftus, that memories can be created and manipulated. Therapists were being successfully sued for creating false memories and insurance companies were refusing to pay for such treatment.

It's tempting to think this issue of recovered memory is over, having been so thoroughly debunked, but as we have seen repeatedly, lack of critical thinking can appear anywhere, anytime, as the recent Clergy abuse scandal, some of which was fueled by recovered memories, has shown.

*The FMS Foundation is located at 1955 Locust St, Phila. Pa. 19103. Telephone 215-940-1040. www.fmsfonline.org

Additional information for this article came from *The Tragedies of False Memories*, Martin Gardner, Skeptical Inquirer, Vol 18, Fall 1994.

"Of all tyrannies, a tyranny sincerely exercised for the good of its victims may be the most oppressive. It would be better to live under robber barons than under omnipotent moral busybodies. The robber baron's cruelty may sometimes sleep, his cupidity may at some point be satiated; but those who torment us for our own good will torment us without end for they do so with the approval of their own conscience."

- C.S. Lewis (1898 - 1963)



Nuclear Fusion for Novices

by Tom Napier

I really miss one-time PhACT member Milton Rothman. He was a science fiction pioneer, a science teacher, the author of physics books for skeptics, and, most usefully, a long-time fusion-power researcher. Were he still with us I'm sure he could explain the failure of cold fusion in a couple of sentences. Unfortunately, Milt died in 2001. Not having his specialist knowledge I must work from general principles.

This approach is very powerful as it can rule out whole classes of otherwise plausible ideas. When offered, for example, a design for a perpetual motion device, there is no need to wade through the thousands of words of obfuscation the inventor has written to substantiate his claims. It is enough to note that the device is built of ordinary matter. This is composed of sub-atomic particles whose every interaction conserves mass-energy. If no particle interaction generates excess energy then neither can the complete device, no matter how ingenious.

Fission or fusion

Nuclear energy can be released by fissioning heavy elements or by fusing light ones. In both cases the end products have less total mass than the original elements; this excess mass is converted to energy, initially in the form of gamma rays and fast moving particles. When carried to their extremes both processes produce iron, the least energetic of the elements.

Fission of uranium can be demonstrated on a table-top. A uranium nucleus hit by a slow neutron fissions without further encouragement. This releases two or three new neutrons that can cause more uranium nuclei to fission, producing a self-sustaining chain-reaction. Variants of this process generate energy in power reactors and atomic bombs.

The fusion of hydrogen and other light elements into heavier ones yields more energy per unit mass than does fission but is much harder to accomplish. For two nuclei to fuse they have to be practically touching. This is difficult to achieve; nuclei are positively charged and repel each other very strongly. At normal temperatures each nucleus has one or more electrons forming a negative shell around it. This imposes a minimum distance between nuclei some 20,000 times greater than their diameters.

Getting together

It would be nice if we could make nuclei come together and fuse in a controlled manner. There's really only one way

to do this although it can be accomplished by different means. Two nuclei come close enough to merge when they head straight towards each other at a speed too great for their repulsive force to stop them. This can be done on a small scale by accelerating free nuclei into a target containing the other element of interest. I mentioned just such a device in an earlier article. As nuclei are very small and far apart an incoming particle is far more likely to be scattered than to collide. Accelerator fusion makes a nice lab demonstration but is not a practical power generator. The nearest equivalent to fission's chain-reaction only happens at temperatures of many millions of degrees.

Brute force

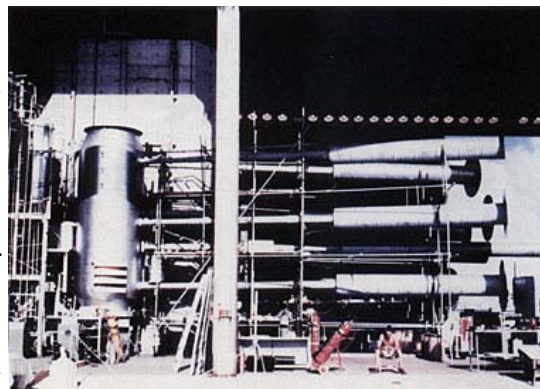
If you heat a gas to a few thousand degrees or pass an electric current through it, it becomes a plasma. The electrons are no longer attached to one particular nucleus. They and the nuclei fly about at speeds that depend on the temperature.

As a plasma is heated the average velocity of the particles in it rises. At any given temperature there is a large spread of velocities; a few particles are always travelling much faster than the average. At temperatures of tens of millions of degrees these thermal velocities reach a level where a significant number of nuclei are fast enough to overcome their mutual repulsion. Fusion starts and, under some conditions, supplies sufficient energy to keep the temperature up and the reaction going.

Pick your fuel

Ordinary hydrogen would be a nice fusion fuel, there's a lot of it around, but its high nuclear ignition temperature makes it a non-starter. It wouldn't fuse even in the center of the sun if there did not happen to be a catalytic reaction involving carbon that lets hydrogen fuse into helium.

Some fusion reactions take place at lower temperatures than others. These are the ones that researchers concentrate on. Deuterium, the heavier isotope of hydrogen which forms one part in 6700 of natural hydrogen, fuses at "only" 600 million degrees (F). Mike, the first hydrogen bomb, fused a tank full of liquid deuterium. It managed this by compressing and heating the deuterium with one atomic bomb and then, in effect, firing a second bomb inside the resulting plasma. More than half of its 10 Mt yield derived from the fission of uranium rather than from fusion. The uranium fission was caused by the huge numbers of neutrons released by



"Mike", the first hydrogen bomb. The device was strictly an experimental, prototype design and not a deliverable weapon: standing over 20 ft. high and weighing at least 140,000 lbs., with an additional 24,000 lbs. from its refrigeration equipment, it could not have been dropped from even the largest planes.

deuterium-deuterium fusion.

At the easier end of the scale is a mixture of deuterium and tritium, the third hydrogen isotope. Not only does this fuse at a lower temperature, about 70 million degrees (F), but collisions leading to fusion are much more probable. Tritium is radioactive and doesn't exist in nature. At present it is made by bombarding lithium with neutrons in an atomic reactor.

Deuterium-tritium fusion emits neutrons. If we surround a power reactor with lithium, it will breed its own tritium fuel. If we ever achieve practical fusion power we can extract all the deuterium we need from tap water but we may run short of lithium. (Yes, that's the same lithium that electric cars need for their batteries.)

Muons to the rescue

There's a tantalizing method of inducing fusion at room temperature called muon-catalyzed fusion. Muons behave like electrons but are 207 times heavier. They can be made on demand in an accelerator but only at a considerable cost in energy. Muons can replace electrons in atoms but, because they are heavier, the resulting atom is much smaller. This lets its neighbors snuggle up closer, close enough that their nuclei can fuse. Muon-induced fusion works best in a mixture of deuterium and tritium at 1600 F, a nice temperature to boil water and drive turbines. The good news is that when fusion occurs the muon is usually released and can prompt two more atoms to fuse.

The bad news is that muons are unstable. They have a half-life of only 2.2 microseconds so there's a limit to how many fusions one muon can trigger before it decays. This limit is, at best, about 300. To generate enough electricity to drive the muon generator takes about 1000 fusions per muon. Muon-induced fusion energy has been that close for the last 50 years.

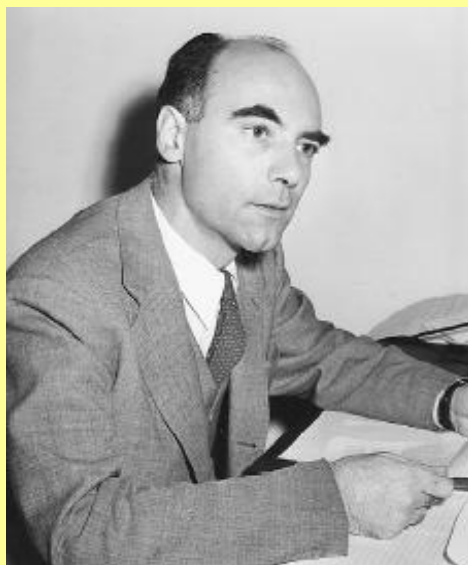
The mainstream

Conventional "hot" fusion research uses a deuterium-tritium plasma contained by a toroidal magnetic field and heated by an electric current. These devices are operated in short pulses and, last I heard, were close to the point where the energy output equals the energy input. Commercial power generators are many decades away but are still our best long-term bet to overcome greenhouse gas emission and fossil fuel depletion. For the present, although solar and wind power can help, our only major practical power genera-

tion option is uranium fission.

Given these difficulties, it is hardly surprising that the 1989 announcement by Pons and Fleischmann that they had succeeded in releasing fusion energy in a bench-top electrolytic cell was greeted with enthusiasm (and a good deal of skepticism).

Dr. Carl David Anderson (1905-1991)



Anderson was an American physicist best known for his discoveries of the positron (an antimatter electron) and the muon (the major component of cosmic rays), for which he was awarded the Nobel Prize in 1936. During World War II Anderson worked on the Manhattan Project.

The experiment

If you pass an electric current through heavy water deuterium gas bubbles up from the cathode and oxygen gas from the anode. If the cathode is made of palladium some of the deuterium gas is adsorbed into the metal where it occupies the interstices between the palladium atoms. Some experimenters substitute dry palladium powder and high-pressure deuterium gas.

Allegedly, squeezing deuterium into palladium causes it to fuse into helium. Oddly enough, the two nuclei in a molecule of deuterium gas are already twice as close together as the crystal structure of palladium permits so we haven't gained anything.

Playing with fire

Were you to experiment with cold fusion you'd better hope it doesn't really happen. Fusion releases a lot of energy and a spray of nasty radiation. Suppose your cold-fusion cell contains 100 grams (about a third of a beer can) of heavy water. This comprises 20 g of deuterium and 80 g of oxygen. The available energy in those 20 grams corresponds to nearly two million kilowatt-hours, the energy of 1600 tons of TNT. Were it all to be released at once you'd need to rebuild the entire campus.

The evidence adduced for cold fusion is that a cell generates tiny amounts of excess heat, amounts so small as to be really hard to measure. That is, fusion, if it occurs at all, is proceeding awfully slowly. The observed heat output is more in line with chemical reactions than with the immensely more energetic nuclear reactions. A more convincing cold fusion demonstration would emit, say, 10 watts of heat continuously for several months. By fusion standards even this is a minute energy output; our 100 g of heavy water would last almost 22,000 years.

That same 100 g would power a typical household for 50 years. Since heavy water forms one part in 6700 of ordinary water, four gallons of tap-water would run your home for a year. Dream on, P and F!

What, no neutrons?

In the October Phactum Joel Kauffman writes that P and F "were not trying to make neutrons." He alleges that they



On 23 March 1989 Martin Fleischmann of the University of Southampton, UK, and Stanley Pons of the University of Utah, US, announced that they had observed controlled nuclear fusion in a glass jar at room temperature

achieved the fusion of two deuterons into helium. Unfortunately, nature doesn't work that way. You take what you can get.

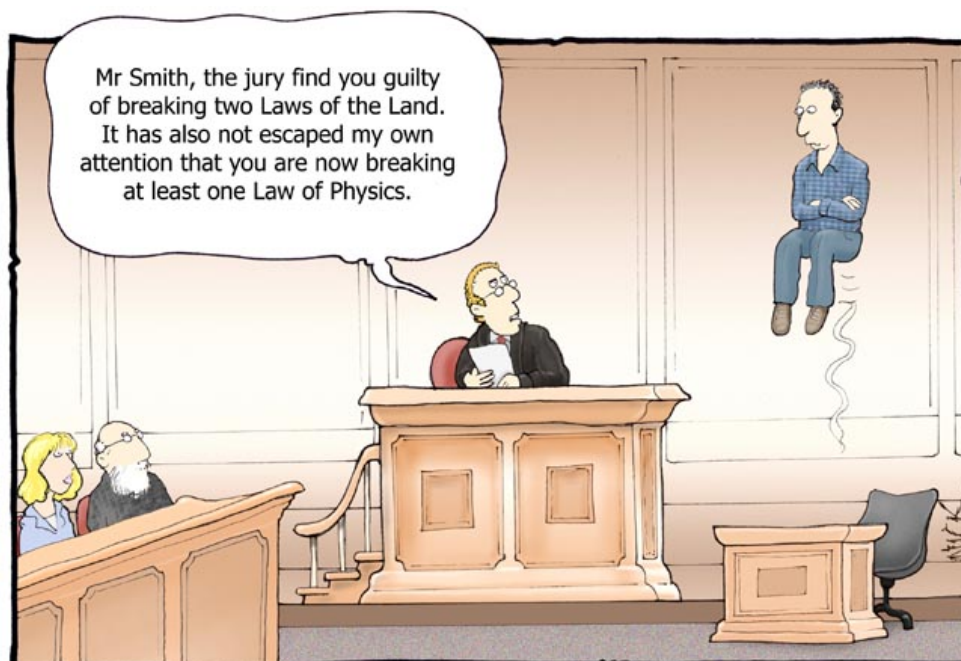
When deuterons fuse they react about equally often in two ways. One reaction produces helium-3 and a free neutron plus 3.25 MeV of energy. The other possible result is tritium, a proton and 4.0 MeV of energy. Many sources quote these as the only D-D reactions.

We're not done yet. Both the products, helium-3 and tritium, readily react with further deuterons. The reaction of deuterium with helium-3 produces regular helium-4, a proton and 18.3 MeV. The final result is helium, a proton and a neutron. The triton fuses with a further deuteron to produce helium-4, a neutron and 17.6 MeV. Again we get helium, a proton and a neutron. That is, deuterium-deuterium fusion inevitably generates both neutrons and protons as well as helium.

More thorough sources mention that the direct conversion of two deuterons into an alpha particle (helium) can happen but that this path is followed in fewer than one in ten thousand reactions. It generates an energetic gamma ray that would be easily detectable. There is no reason to suppose that this rare nuclear reaction can be made to occur to the total exclusion of the common ones by any chemical means. The absence of neutrons and protons (or even gamma rays) in the Pons and Fleischmann experiment suggests that whatever was going on, it wasn't fusion.

Tom Napier is a long time skeptic, is a founding member of PhACT, is a physicist, and among his other achievements has worked at the European Space Technology Center, and CERN (European Laboratory for Particle Physics).

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Cartoon by Nick D. Kim, nearingzero.net. Used by permission.

'The Phenomenal Week of 1909' Solved!

by Don Nigroni

Synopsis: A hundred years ago during this month, a strange winged creature was heard and seen and mysterious footprints were found in the snow causing a brief but widespread panic in the Delaware Valley. This article commemorates the centennial anniversary of that event and attempts to explain the bizarre phenomena that was observed during a cold wintry week long ago.

During the Phenomenal Week of 1909, the Jersey Devil left the Pine Barrens to haunt the Delaware Valley from Sunday, January 17 to Friday, January 22, 1909. During this period, he was heard and seen and his mysterious footprints were found in the snow in numerous places throughout the area.

According to McCloy and Miller in *The Jersey Devil* (1976), at 2:00 am on Sunday, January 17 in Bristol, Pennsylvania, John McOwen heard odd noises near the Delaware Division Canal and saw a strange creature on the banks of the canal that "looked something like an eagle". Shortly afterwards, Patrolman James Sackville of Bristol saw a winged beast with a voice that made a horrible sound and he fired at the creature which flew away. Then E. W. Minster, Postmaster of Bristol, heard an eerie noise coming from the direction of the Delaware River and saw what looked like a large crane "emitting a glow like a fire-fly" flying across the river.

Minster went on to describe the beast in detail:

Its head resembled that of a ram, with curled horns, and its long thick neck was thrust forward in flight. It had long thin wings and short legs, the front legs shorter than the hind. Again, it uttered its mournful and awful call – a combination of a squawk and a whistle, the beginning very high and piercing and ending very low and hoarse...

What strange winged creature was encountered during the wee hours of January 17, 1909 in Bristol? Most likely what was heard and seen was simply a bird. Since the fall migration was way over and the spring migration hardly yet begun,

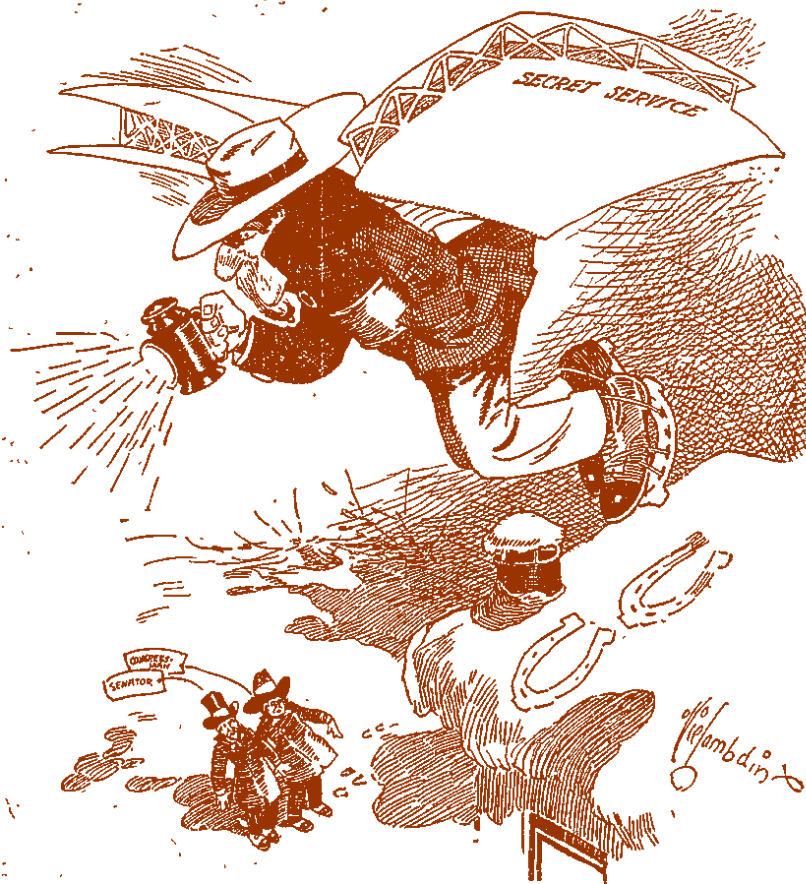
the winged creature might really have been some exotic bird, like a Sandhill Crane, that had been blown out of its normal range by the recent severe winter snowstorm. In such cases the bird tends not to make it through the winter since the weather conditions are harsh and the food supply is scarce.

Nonetheless, McCloy and Miller stated that, when daylight came, people in Bristol discovered mysterious hoof-prints in their yards. The most famous case of mysterious

footprints in the snow was the Great Devon Mystery of 1855. People awoke on Friday, February 9, 1855, in Devonshire, England to find small bipedal horseshoe shaped tracks throughout a 30 mile area, some of them in inaccessible places like on the roofs of houses and in yards surrounded by high walls. The tracks became known as the Devil's Footprints or the Devil's Hoofprints.

Something similar happened in the Delaware Valley in 1909 which became known as the Phenomenal Week of 1909. During that week, mysterious bipedal tracks were found in the snow throughout the Delaware Valley which were shaped like a horseshoe that would have been used by a small pony. The strange tracks appeared over a 70 mile area during the six day period and sometimes went on for many miles. They went through backyards and open fields, but they were also found in inaccessible places like on the roofs of houses and in yards surrounded by

THAT MYSTERIOUS BIRD?



News Dispatch—The People of New Jersey Are Greatly Excited Over Reports of a Strange Bird Which Has Been in Several Part of the State and Which Leaves Footprints Like the Hoofmarks of a Pony.

Front page cartoon from the January 24, 1909 issue of *The Syracuse Herald* from Syracuse, New York.

high fences.

Explanations varied as to what caused the mysterious tracks in the snow that were seen during the Great Devon Mystery and the Phenomenal Week. The theories can be grouped into three categories: 1.) supernatural explanations,

2.) the tracks were made by animals and 3.) they were made by humans.

In the Great Devon Mystery, many people felt the culprit was none other than the Devil. Who else could cover such an enormous distance in a single night and who else could make strange tracks in such inaccessible places? The Devil has wings and can fly. As for the Phenomenal Week, many people thought the tracks had to have been made by our local monster, who, like the Prince of Darkness, also has wings and can fly.

However, others believed the tracks were caused by animals. In an article written by Mike Dash and in the accompanying source documents in *Fortean Studies, Volume 1* (1994), a large number of birds and beasts are held accountable for the tracks found in the Great Devon Mystery. The suspects ranged from gulls, swans, moorhens, cranes, bustards and turkeys, presumably with their feet encrusted with ice which made them make imprints like horseshoes, to polecats, domestic cats, badgers and donkeys to even a kangaroo said to have escaped from a private menagerie and a monkey thought to have escaped from a traveling show. Some thought the odd imprints were simply animal tracks that became distorted as the snow melted and refroze. Nonetheless, the main candidates were rabbits, squirrels, rats and mice which can hop in such a way that they can land with all of their four feet together which can make their tracks look like horseshoes. Considering the small size of the mysterious footprints in the snow, the leading candidate for the terrifying monster who created these strange tracks was the lowly wood mouse.

Nonetheless, some people thought the tracks were made by hoaxers. However, in the Great Devon Mystery of 1855 and during the Phenomenal Week of 1909, the vast extent of the tracks and their appearance in inaccessible places were two of the most puzzling aspects of the mystery. However, in 1973 with the publication of a book entitled *In the Life of a Romany Gypsy* by Manfred Frederick Wood, a possible explanation for these two bewildering aspects of the curious imprints came to light. An excerpt from this work was included in *Fortean Studies, Volume 1*. In this passage, Wood relates a story that he might have actually heard concerning an alleged gypsy operation in, as far as he could recall, Somerset which supposedly happened long ago. Somerset is the county just east of Devonshire. According to Wood, a group of Christianized gypsies had been operating in Somerset for a long time when a group of gypsies who still held to the old pagan ways moved into their domain. The Christian gypsies wanted to drive the pagan gypsies away, presumably because they didn't want any competition. And the Christian gypsies knew that the pagan gypsies still believed in mulos.

A mulo was a Romany dead man who was waiting to be allowed to enter into the land of the dead. In the interim, he would "live inside the body of a dead man lying in his grave, but he came out of the tomb every night as the dead man's double and at cock-crow he returned to his grave until high

noon when he came out for half an hour." If a man got in the path of a mulo, he would either commit a terrible crime or commit suicide, whereas a woman would be raped and bear an idiot child. Hence, the pagan gypsies would make sure to make camp before dark and wouldn't be out and about between noon and 12:30 pm.

Knowing this, the Christian gypsies devised a plan which involved over 400 gypsies from seven tribes and they planned and prepared for 18 months. According to plan, the gypsies used measure-stilts with size 27 boots attached to the ends of the stilts and made tracks in the mud in a straight line over an enormous distance and in all sorts of inaccessible places and all in a single night. Wood stated that the gypsies had used their stilts as ladders to gain access to rooftops. The next day the pagan gypsies saw the tracks and thought they must have been made by a mulo. For years afterwards, they avoided Somerset.

Whilst Wood's tale is highly suspect, nonetheless, his explanation for allegedly strange tracks appearing in Somerset may help us better understand the strange tracks which were seen in Devonshire and in the Delaware Valley. Strong and agile people, like circus entertainers, could tiptoe about with horseshoes tacked onto the fronts of their shoes and carrying stilts like a balancing pole. The stilts would also have horseshoes attached at their base. When needed, they could use the stilts, which would have additional steps on the back of one of the stilts and on the front of the other stilt so that the person could climb up onto a roof and down the other side using the stilts as a ladder while keeping the tracks on the ground heading in the same direction. When crossing the roof, the person would once again walk tiptoe while carrying the stilts like a balancing pole. Of course, hoaxers using snow as their medium have a very limited time frame since snow melts. Most likely stilts were used both in the Great Devon Mystery and during the Phenomenal Week and most likely the people involved in the Great Devon Mystery were some organized group whereas those involved in the Phenomenal Week were simply a lone practical joker at first who was then followed by a host of copycats.

In conclusion, we will always have sudden and unexpected, though rare, encounters with weird and unfamiliar, but scientifically known, birds late at night which will startle and frighten some imaginative people. And though the mysterious tracks seemed otherworldly and caused widespread panic, they were probably just the work of hoaxers, who seem to have been with us in all places and during all times.

Don Nigroni received a BS in economics in 1971 from St. Joseph's University and a MA in philosophy from Notre Dame in 1973. He retired in 2007 after working for 32 years as an economist with the US Bureau of Labor Statistics. He now spends much more time hiking, mountain biking, kayaking and bird watching.

Fearless Leader made the trains run on time now he needs your help to ..

Unite the World and

Stop Anthropogenic Plate Tectonics

Oppose fiendish Oil Company plots to divide and rule the Workers of the World.

Continental Drift must be reversed!

We must never rest until Fearless Leader has Restored One World Utopia!

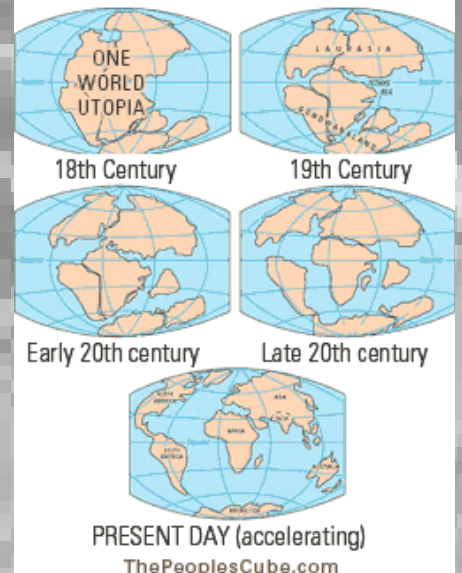
Only HE can save us!

To the Barricades, Comrades!
Fight for United Pangea!

Or, if you are more rational, you might consider becoming a supporting member of PhACT if you have not already done so. Membership dues are only \$15 per year which includes an email subscription to Phactum, \$25 if you wish a printed copy delivered by US Mail. We do have some expenses and your financial support is important. Extra donations are very welcome.

Also, feel free to contribute your ideas and opinions to Phactum. Ideas not expressed are useless.

THE DESTRUCTION OF ONE-WORLD UTOPIA *the frightening results of American capitalism*



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THANK GOD FOR



CHILD LABOR



Good Riddance to this atrocity.

In the Occident, except parts of Latin America, child labor is largely an extinct practice, having been abolished during the early 20th century. Unfortunately in many other parts of the world children are still working at dangerous industrial sites.

Do we really need cheap goods that badly?

October 1908. Grafton, West Virginia.
"Glassworks carrying-in boy at Lehr (annealing furnace), fifteen years old. Has worked for several years. Works nine hours. Day shift one week, night shift next week. Gets \$1.25 per day." Photograph and caption by Lewis Wickes Hine.